ANZ DATA
AUSTRALIA & NEW ZEALAND DIALYSIS & TRANSPLANT REGISTRY

CHAPTER 4

Haemodialysis

Reporting the incidence, prevalence, and survival of haemodialysis patients in Australia and New Zealand; summarising dialysis prescriptions, laboratory results, dialysis adequacy, vascular access, and rates of home haemodialysis treatment

CONTENTS

SUMMARY AND HIGHLIGHTS

At the end of 2022, there were 12,861 and 2,389 people receiving haemodialysis in Australia and New Zealand, respectively. The number of patients continues to increase gradually year upon year. A large proportion of these patients are 65 years of age or older – 52% in Australia and 38% in New Zealand.

Whilst most prevalent patients have established vascular access (arteriovenous fistula or graft), the proportion of patients commencing haemodialysis with established vascular access remains low and subject to substantial variation by age group, late referral status, country, State within Australia, and caring hospital.

Almost 90% of patients have haemodialysis three times per week. The proportion performing haemodialysis at home in New Zealand is almost double that in Australia. More patients in Australia than New Zealand receive haemodiafiltration, and this varies very widely between states. Patients in New Zealand receive more hours of dialysis per week than Australian patients overall, and patients performing haemodialysis at home in both countries do substantially more hours per week.

The ANZDATA Haemodialysis Work Group is still working on understanding where and by whom haemodialysis care is provided. The self-care variable still reports a much higher percentage of hospital and satellite patients performing haemodialysis themselves with minimal assistance from a health care professional. The self-care variable is asking about self-care with respect to performing the haemodialysis procedure. However, our contact with individual units suggests this variable is still incorrectly interpreted as self-care with respect to activities of daily living.

Overall, 9 out of 10 people who start haemodialysis in Australia and New Zealand are alive after one year of haemodialysis and 5 out of 10 after 5 years. The presence of diabetes and cardiovascular disease adversely affect these proportions and Tables 4.4 and 4.5 present data that may be useful in counselling patients who may ask about survival.

SUGGESTED CITATION

M Roberts, C Davies, E Au, S Bateman, J Chen, K Hurst, G Irish, D Lee, H McCarthy, S McDonald, W Mulley, T Sun, P Clayton. 46th Report, Chapter 4: Haemodialysis. Australia and New Zealand Dialysis and Transplant Registry, Adelaide, Australia. 2023. Available at: http://www.anzdata.org.au

INCIDENCE, CESSATION AND PREVALENCE

Table 4.1 presents the incidence, cessation and prevalence of haemodialysis patients in Australia and New Zealand over 2017-2021. Note that dialysis modality changes lasting less than 30 days are not included.

^Please note that in 2020 the ANZDATA registry began to record withdrawal from dialysis as a treatment decision in addition to documenting this as a cause of death. This change is reflected in fewer patients having death documented as cause of dialysis cessation in the table below. The great majority of people who withdraw from dialysis will pass away soon after this decision and therefore the total number of withdrawals and deaths can be compared with the number of deaths in previous years. Following cessation of HD with withdrawal from dialysis in 2020, the median days to death was 6, and 90% of patients died within 24 days.

Table 4.1
Incidence, Cessation and Prevalence of Haemodialysis Patients in Australia and New Zealand 2018-2022

Country		2018	2019	2020	2021	2022
Australia	**All patients who commenced HD**					
	First dialysis treatment or returning after kidney recovery	2294	2429	2354	2375	2512
	Transfer from PD (no prior HD)	391	390	393	435	427
	Transfer from PD (prior HD)	148	150	183	172	147
	Failed Transplant (no prior HD)	46	50	41	50	47
	Failed Transplant (prior HD)	200	166	156	183	193
	Total	**3079**	**3185**	**3127**	**3215**	**3326**
	All patients who ceased HD					
	Received kidney transplant	664	632	541	545	592
	Transfer to PD	291	325	308	289	271
	Kidney recovery	83	80	88	83	83
	Withdrawal from dialysis^	0	0	577	738	769
	Deaths	1597	1641	1153	1059	1288
	Total	**2635**	**2678**	**2667**	**2714**	**3003**
	Total patients on HD at 31 December	**11120**	**11612**	**12053**	**12539**	**12861**
	Patients on HD at home* at 31 December (% of all HD patients)	**1058 (9.5%)**	**1074 (9.2%)**	**1133 (9.4%)**	**1137 (9.1%)**	**1134 (8.8%)**
New Zealand	**All patients who commenced HD**					
	First dialysis treatment or returning after kidney recovery	362	386	411	440	432
	Transfer from PD (no prior HD)	98	104	123	143	119
	Transfer from PD (prior HD)	66	71	57	67	55
	Failed Transplant (no prior HD)	10	8	5	10	6
	Failed Transplant (prior HD)	21	18	27	27	24
	Total	**557**	**587**	**623**	**687**	**636**
	All patients who ceased HD					
	Received kidney transplant	80	106	84	76	71
	Transfer to PD	126	112	127	112	107
	Kidney recovery	13	12	15	4	12
	Withdrawal from dialysis^	0	0	62	76	101
	Deaths	275	324	224	235	273
	Total	**494**	**554**	**512**	**503**	**564**
	Total patients on HD at 31 December	**2004**	**2033**	**2146**	**2329**	**2389**
	Patients on HD at home* at 31 December (% of all HD patients)	**427 (21.3%)**	**407 (20.0%)**	**385 (17.9%)**	**391 (16.8%)**	**383 (16.0%)**

*Includes Community House HD

BACK TO CONTENTS

Figures 4.1-4.2 and Table 4.2 present the age distribution of incident and prevalent haemodialysis patients in Australia and New Zealand.

Figure 4.1.1
Age (%) of Incident Haemodialysis Patients - Australia 2022

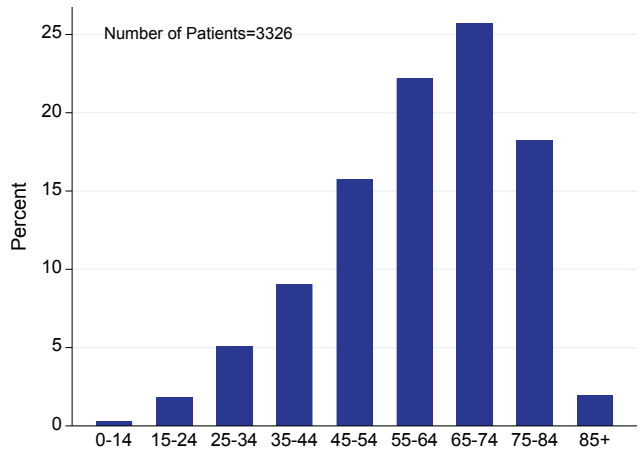


Figure 4.1.2
Age (%) of Incident Haemodialysis Patients - New Zealand 2022

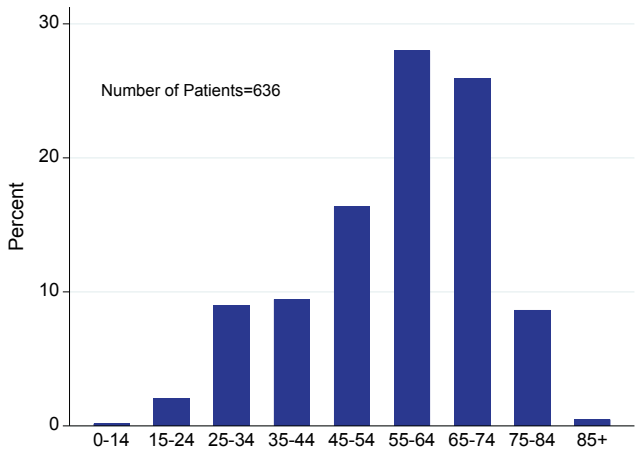


Figure 4.2.1
Age (%) of Prevalent Haemodialysis Patients - Australia 31 Dec 2022

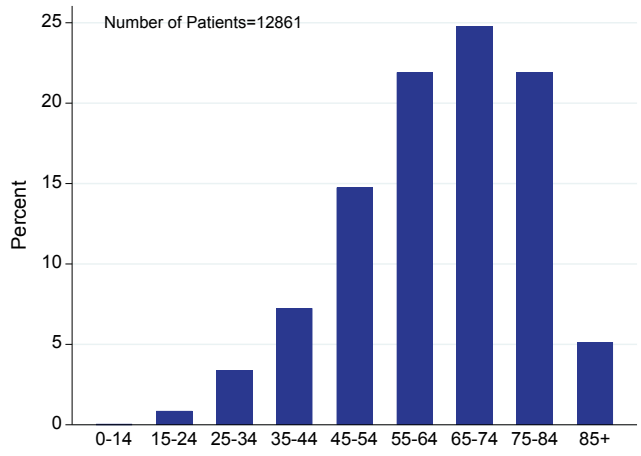
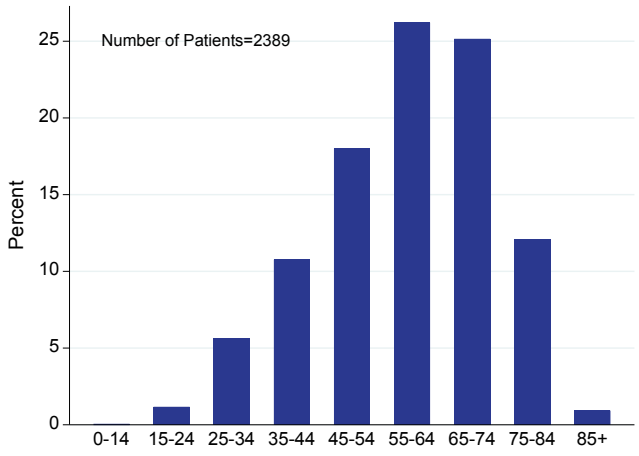


Figure 4.2.2
Age (%) of Prevalent Haemodialysis Patients - New Zealand 31 Dec 2022



BACK TO CONTENTS

Table 4.2.1

Incident and Prevalent Haemodialysis Patients in Australia by Age Group 2018-2022

Country	Age Group	2018	2019	2020	2021	2022
Incident Patients	0-14	13 (0%)	10 (0%)	8 (0%)	14 (0%)	9 (0%)
	15-24	65 (2%)	65 (2%)	51 (2%)	67 (2%)	61 (2%)
	25-34	144 (5%)	152 (5%)	152 (5%)	161 (5%)	168 (5%)
	35-44	276 (9%)	232 (7%)	246 (8%)	278 (9%)	301 (9%)
	45-54	493 (16%)	573 (18%)	476 (15%)	490 (15%)	524 (16%)
	55-64	688 (22%)	680 (21%)	728 (23%)	707 (22%)	738 (22%)
	65-74	809 (26%)	856 (27%)	802 (26%)	853 (27%)	854 (26%)
	75-84	522 (17%)	543 (17%)	574 (18%)	577 (18%)	606 (18%)
	85+	69 (2%)	74 (2%)	90 (3%)	68 (2%)	65 (2%)
	Total	**3079**	**3185**	**3127**	**3215**	**3326**
Prevalent Patients	0-14	13 (0%)	6 (0%)	7 (0%)	7 (0%)	4 (0%)
	15-24	112 (1%)	111 (1%)	105 (1%)	114 (1%)	111 (1%)
	25-34	383 (3%)	399 (3%)	415 (3%)	402 (3%)	436 (3%)
	35-44	772 (7%)	760 (7%)	769 (6%)	877 (7%)	932 (7%)
	45-54	1636 (15%)	1768 (15%)	1768 (15%)	1808 (14%)	1897 (15%)
	55-64	2405 (22%)	2516 (22%)	2680 (22%)	2742 (22%)	2818 (22%)
	65-74	2801 (25%)	2953 (25%)	3051 (25%)	3170 (25%)	3184 (25%)
	75-84	2442 (22%)	2536 (22%)	2660 (22%)	2781 (22%)	2818 (22%)
	85+	556 (5%)	563 (5%)	598 (5%)	638 (5%)	661 (5%)
	Total	**11120**	**11612**	**12053**	**12539**	**12861**

Table 4.2.2

Incident and Prevalent Haemodialysis Patients in New Zealand by Age Group 2018-2022

Country	Age Group	2018	2019	2020	2021	2022
Incident Patients	0-14	5 (1%)	1 (0%)	3 (0%)	2 (0%)	1 (0%)
	15-24	9 (2%)	9 (2%)	22 (4%)	23 (3%)	13 (2%)
	25-34	47 (8%)	43 (7%)	32 (5%)	41 (6%)	57 (9%)
	35-44	56 (10%)	56 (10%)	54 (9%)	80 (12%)	60 (9%)
	45-54	101 (18%)	146 (25%)	129 (21%)	137 (20%)	104 (16%)
	55-64	144 (26%)	155 (26%)	180 (29%)	181 (26%)	178 (28%)
	65-74	149 (27%)	115 (20%)	136 (22%)	156 (23%)	165 (26%)
	75-84	43 (8%)	61 (10%)	62 (10%)	64 (9%)	55 (9%)
	85+	3 (1%)	1 (0%)	5 (1%)	3 (0%)	3 (0%)
	Total	**557**	**587**	**623**	**687**	**636**
Prevalent Patients	0-14	3 (0%)	1 (0%)	1 (0%)	2 (0%)	1 (0%)
	15-24	33 (2%)	22 (1%)	31 (1%)	32 (1%)	28 (1%)
	25-34	122 (6%)	114 (6%)	121 (6%)	128 (5%)	135 (6%)
	35-44	210 (10%)	219 (11%)	221 (10%)	253 (11%)	257 (11%)
	45-54	368 (18%)	377 (19%)	402 (19%)	418 (18%)	430 (18%)
	55-64	535 (27%)	549 (27%)	575 (27%)	621 (27%)	626 (26%)
	65-74	527 (26%)	529 (26%)	541 (25%)	592 (25%)	601 (25%)
	75-84	192 (10%)	207 (10%)	239 (11%)	267 (11%)	289 (12%)
	85+	14 (1%)	15 (1%)	15 (1%)	16 (1%)	22 (1%)
	Total	**2004**	**2033**	**2146**	**2329**	**2389**

BACK TO CONTENTS

PATIENT SURVIVAL

Table 4.3 and figure 4.3 present unadjusted haemodialysis patient survival by era and country. The outcome is patient death, censored at transplantation and transfer to peritoneal dialysis for ≥30 days. Survival for all incident kidney replacement therapy (KRT) patients who were treated with haemodialysis at commencement is reported.

Survival begins from the date of commencing KRT with haemodialysis.

Survival of people receiving dialysis differs substantially according to age, diabetes status and cardiovascular disease status (Tables 4.4 and 4.5) and data are presented this way to enable clinicians to estimate their patient's survival based on where they fit in this table. Survival by individual components of this table is presented in the Figures 4.4-4.7.

Table 4.3
Patient Survival by Era - Haemodialysis at KRT Start - Censored for Transplant and Transfer to PD: 2011-2022; % [95% Confidence Interval]

Country	Era	Number of Patients	Survival			
			6 months	1 year	3 years	5 years
Australia	2011-2013	5552	93 [92, 94]	88 [87, 89]	69 [67, 70]	50 [49, 52]
	2014-2016	5791	94 [93, 94]	89 [88, 90]	70 [69, 72]	52 [50, 53]
	2017-2019	6857	95 [94, 95]	90 [89, 90]	70 [69, 71]	50 [48, 52]
	2020-2022	7156	95 [94, 95]	90 [89, 90]	-	-
New Zealand	2011-2013	1014	93 [91, 95]	90 [88, 92]	72 [68, 75]	53 [49, 57]
	2014-2016	1012	94 [92, 95]	88 [85, 90]	69 [65, 72]	50 [46, 53]
	2017-2019	1120	93 [91, 95]	89 [86, 91]	72 [69, 75]	50 [46, 54]
	2020-2022	1264	95 [94, 96]	92 [90, 93]	-	-

Figure 4.3.1
Patient Survival by Era - Haemodialysis at KRT Start - Australia 2011-2022 Censored for Transplant and Transfer to PD

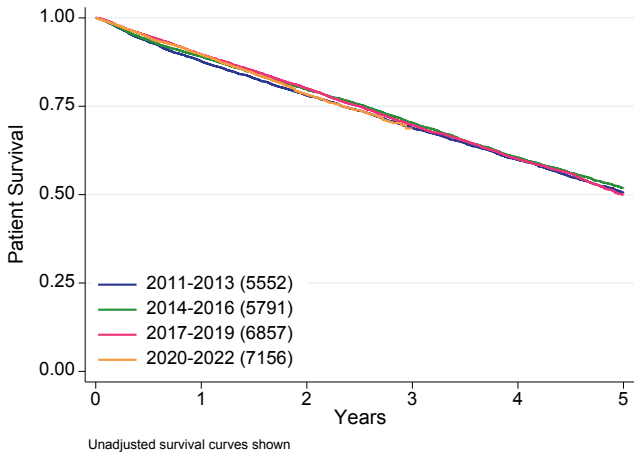
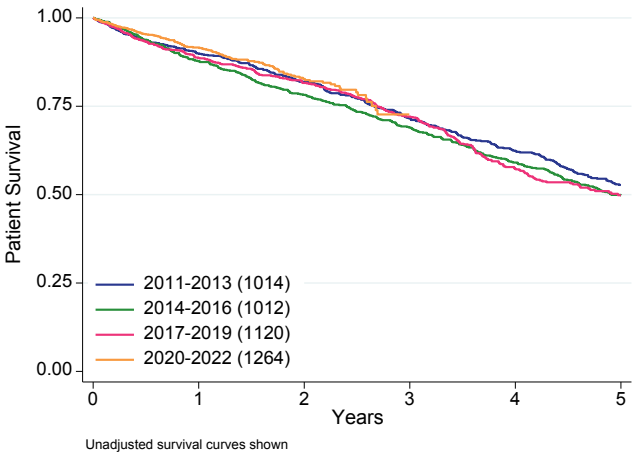


Figure 4.3.2
Patient Survival by Era - Haemodialysis at KRT Start - New Zealand 2011-2022 Censored for Transplant and Transfer to PD



BACK TO CONTENTS

Table 4.4

Patient Survival by Age Group, Diabetes Status and Cardiovascular Disease Status - Haemodialysis at KRT Start - Censored for Transplant and Transfer to PD: Australia 2011-2022; % [95% Confidence Interval]

Age Group	Survival							
	DM-, CVD-		DM+, CVD-		DM-, CVD+		DM+, CVD+	
	1 year	5 years	1 year	5 years	1 year	5 years	1 year	5 years
<40 years	97 [96, 98]	91 [88, 93]	95 [92, 96]	71 [65, 77]	93 [87, 97]	69 [54, 80]	90 [85, 93]	56 [47, 64]
40-59 years	95 [94, 96]	75 [72, 78]	95 [93, 96]	69 [66, 72]	92 [90, 94]	62 [57, 67]	92 [90, 93]	54 [52, 57]
60-74 years	90 [89, 92]	59 [56, 62]	92 [90, 93]	58 [54, 61]	85 [83, 87]	46 [43, 49]	87 [86, 88]	42 [40, 44]
≥75 years	86 [83, 88]	39 [35, 42]	88 [85, 90]	37 [33, 42]	80 [78, 82]	34 [31, 37]	80 [78, 81]	26 [24, 29]

DM-, CVD- : No diabetes and no cardiovascular disease

DM+, CVD- : Diabetes but no cardiovascular disease

DM-, CVD+ : Cardiovascular disease but no diabetes

DM+, CVD+ : Both cardiovascular disease and diabetes

Table 4.5

Patient Survival by Age Group, Diabetes Status and Cardiovascular Disease Status - Haemodialysis at KRT Start - Censored for Transplant and Transfer to PD: New Zealand 2011-2022; % [95% Confidence Interval]

Age Group	Survival							
	DM-, CVD-		DM+, CVD-		DM-, CVD+		DM+, CVD+	
	1 year	5 years	1 year	5 years	1 year	5 years	1 year	5 years
<40 years	97 [93, 99]	91 [84, 95]	94 [88, 97]	68 [54, 78]	96 [73, 99]	84 [58, 95]	82 [65, 91]	48 [25, 68]
40-59 years	96 [93, 98]	71 [63, 78]	94 [91, 95]	64 [58, 69]	87 [78, 92]	56 [41, 69]	87 [83, 90]	45 [39, 50]
60-74 years	88 [83, 92]	55 [45, 63]	93 [90, 95]	52 [45, 58]	84 [78, 89]	40 [31, 49]	86 [83, 89]	37 [32, 42]
≥75 years	84 [73, 91]	10 [2, 26]	88 [77, 94]	34 [19, 49]	78 [67, 85]	27 [16, 40]	80 [71, 86]	18 [10, 28]

DM-, CVD- : No diabetes and no cardiovascular disease

DM+, CVD- : Diabetes but no cardiovascular disease

DM-, CVD+ : Cardiovascular disease but no diabetes

DM+, CVD+ : Both cardiovascular disease and diabetes

Figure 4.4.1

Patient Survival by Age Group Haemodialysis at KRT Start - Australia 2011-2022 Censored for Transplant and Transfer to PD

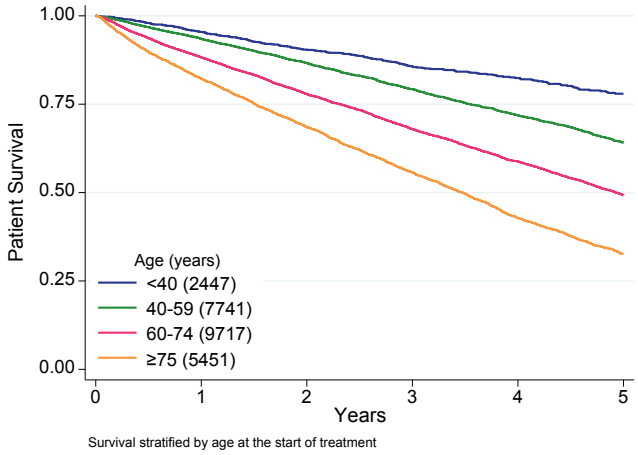


Figure 4.4.2

Patient Survival by Age Group Haemodialysis at KRT Start - New Zealand 2011-2022 Censored for Transplant and Transfer to PD

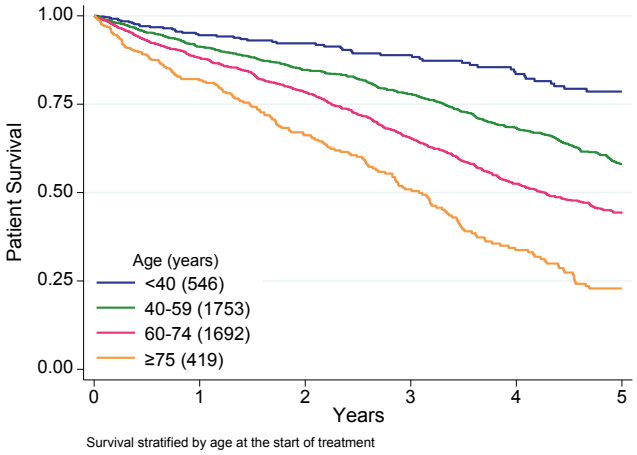


Figure 4.5.1

Patient Survival by Diabetes Haemodialysis at KRT Start - Australia 2011-2022 Censored for Transplant and Transfer to PD

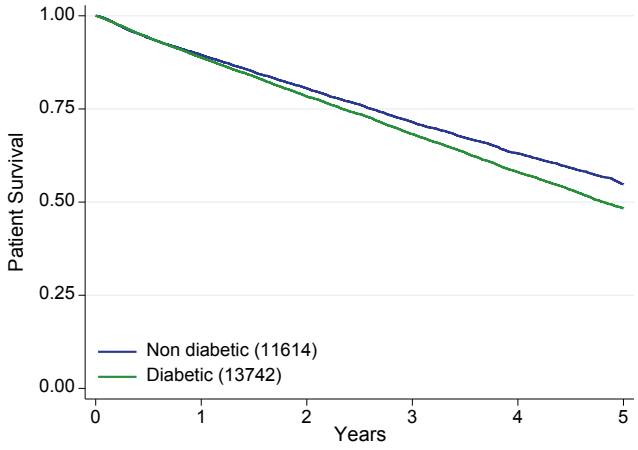


Figure 4.5.2

Patient Survival by Diabetes Haemodialysis at KRT Start - New Zealand 2011-2022 Censored for Transplant and Transfer to PD

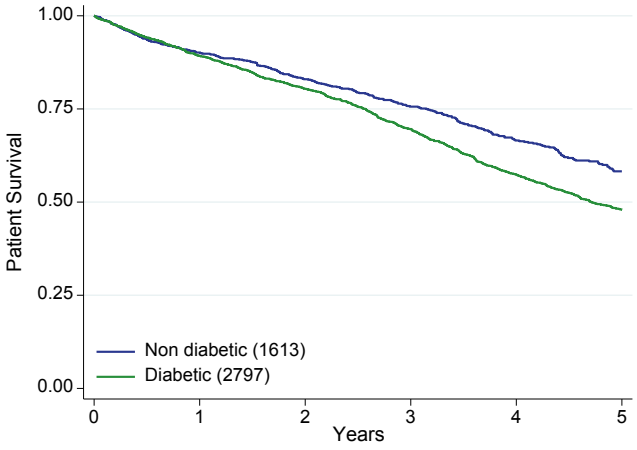
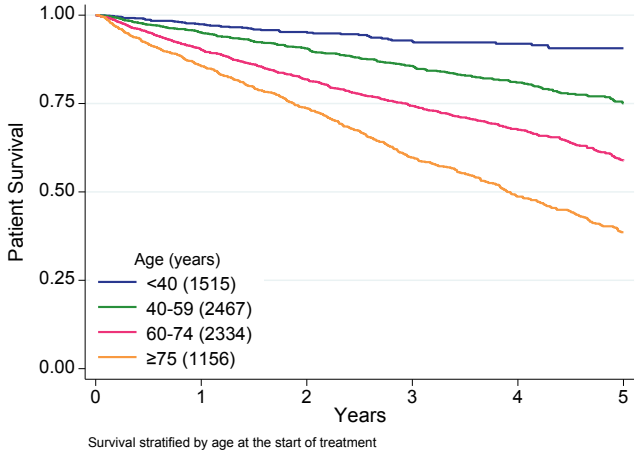


Figure 4.6.1

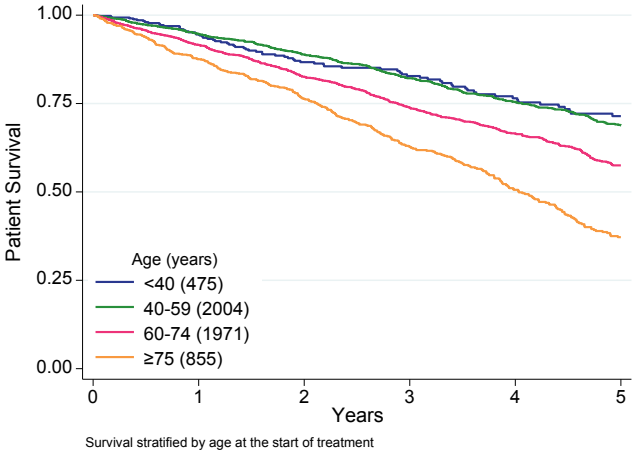
Patient Survival by Age Group Haemodialysis at KRT Start - Australia 2011-2022 Censored for Transplant and Transfer to PD No Diabetes and No Cardiovascular Disease



Survival stratified by age at the start of treatment

Figure 4.6.2

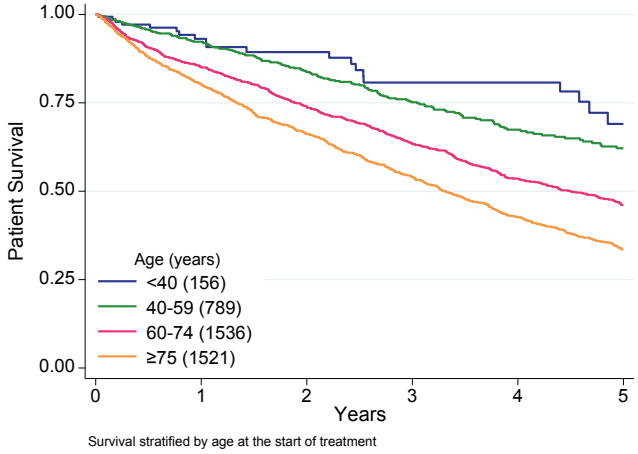
Patient Survival by Age Group Haemodialysis at KRT Start - Australia 2011-2022 Censored for Transplant and Transfer to PD Diabetes but No Cardiovascular Disease



Survival stratified by age at the start of treatment

Figure 4.6.3

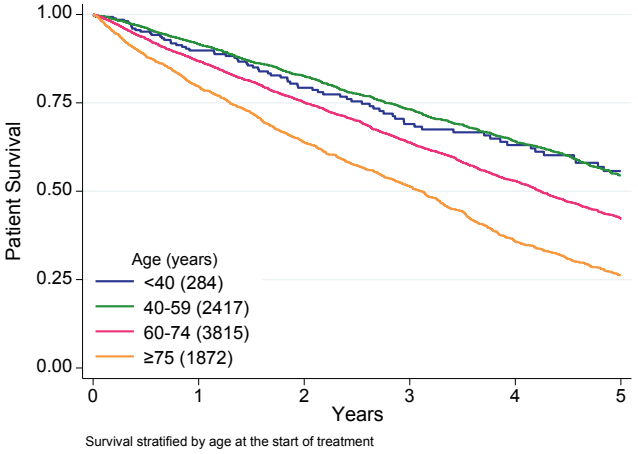
Patient Survival by Age Group Haemodialysis at KRT Start - Australia 2011-2022 Censored for Transplant and Transfer to PD Cardiovascular Disease but No Diabetes



Survival stratified by age at the start of treatment

Figure 4.6.4

Patient Survival by Age Group Haemodialysis at KRT Start - Australia 2011-2022 Censored for Transplant and Transfer to PD Both Diabetes and Cardiovascular Disease

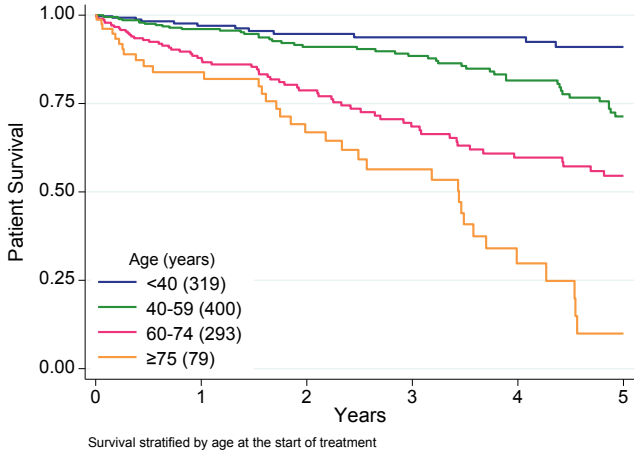


Survival stratified by age at the start of treatment

BACK TO CONTENTS

Figure 4.7.1

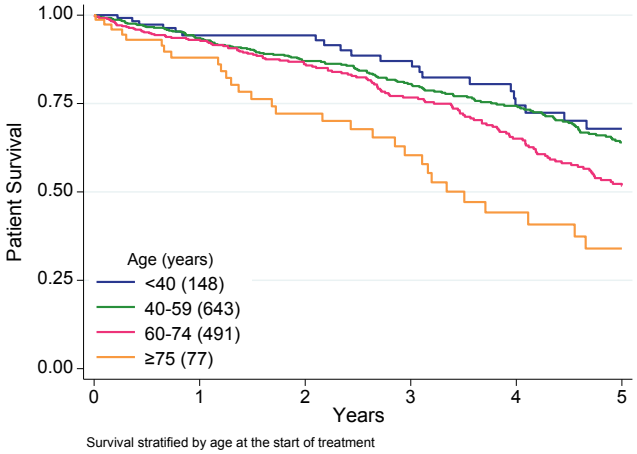
Patient Survival by Age Group Haemodialysis at KRT Start - New Zealand 2011-2022 Censored for Transplant and Transfer to PD No Diabetes and No Cardiovascular Disease



Survival stratified by age at the start of treatment

Figure 4.7.2

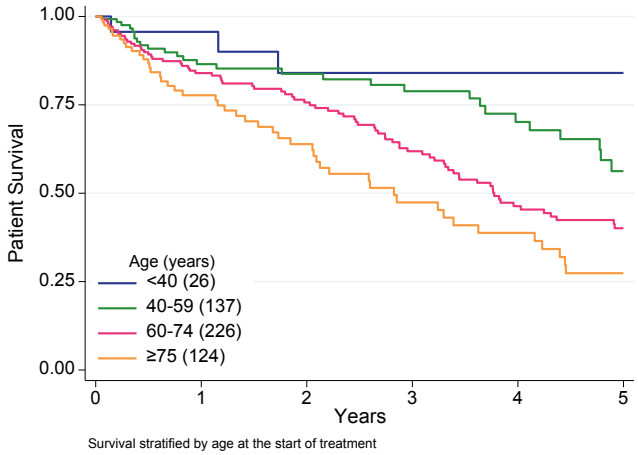
Patient Survival by Age Group Haemodialysis at KRT Start - New Zealand 2011-2022 Censored for Transplant and Transfer to PD Diabetes but No Cardiovascular Disease



Survival stratified by age at the start of treatment

Figure 4.7.3

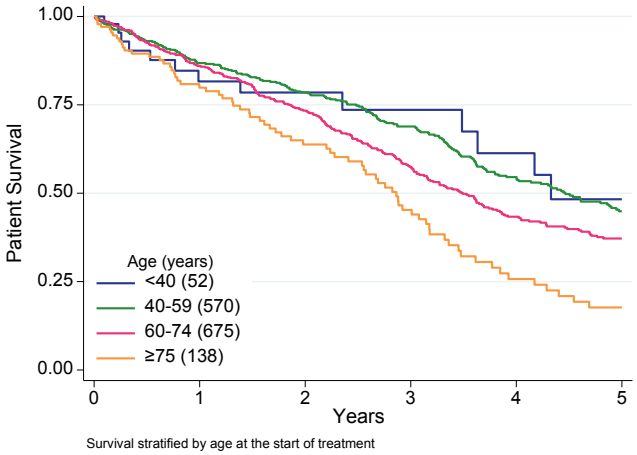
Patient Survival by Age Group Haemodialysis at KRT Start - New Zealand 2011-2022 Censored for Transplant and Transfer to PD Cardiovascular Disease but No Diabetes



Survival stratified by age at the start of treatment

Figure 4.7.4

Patient Survival by Age Group Haemodialysis at KRT Start - New Zealand 2011-2022 Censored for Transplant and Transfer to PD Both Diabetes and Cardiovascular Disease



Survival stratified by age at the start of treatment

BACK TO CONTENTS

VASCULAR ACCESS

INCIDENT PATIENTS

Figures 4.8 to 4.11 and table 4.6 show data related to vascular access for incident haemodialysis patients. This includes patients who start with a catheter and then transfer to planned peritoneal dialysis.

ANZDATA does not collect information about indication for haemodialysis catheter usage, hence the reasons why over half of patients commenced with a central venous catheter, including those referred sufficiently early (figure 4.11), are not known.

Figure 4.8
Vascular Access - Initial KRT - Haemodialysis as Initial Modality

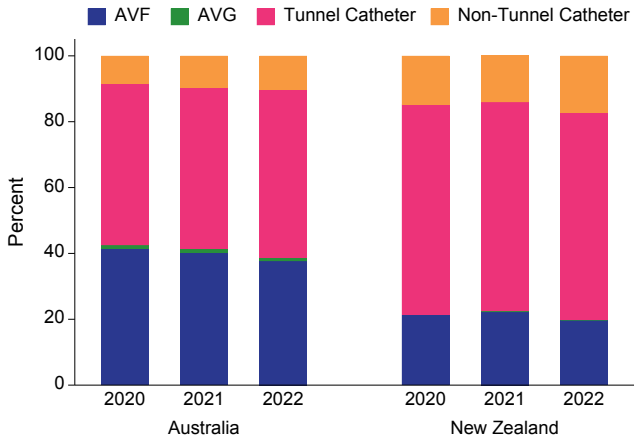


Figure 4.9
Vascular Access - Initial KRT - By Age Group 2022

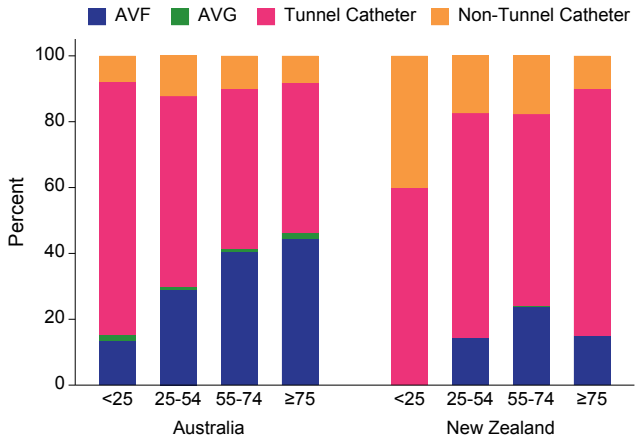


Figure 4.10.1
Vascular Access - Initial KRT - By Gender - Australia

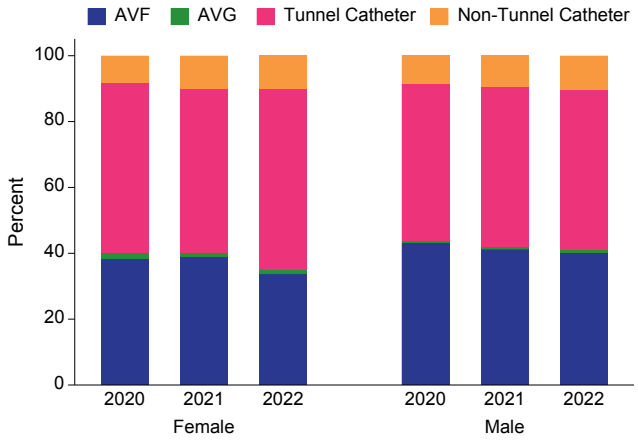
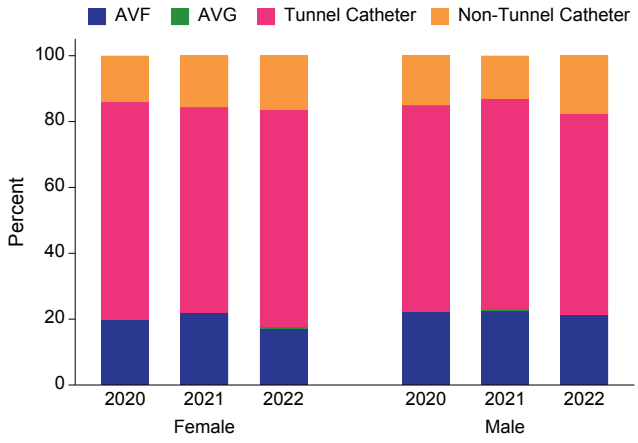


Figure 4.10.2
Vascular Access - Initial KRT - By Gender - New Zealand



BACK TO CONTENTS

Figure 4.11.1
Vascular Access - Initial KRT - By Referral Time - Australia

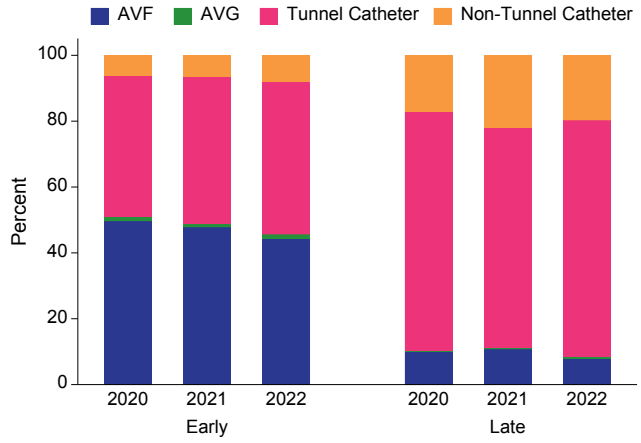


Figure 4.11.2
Vascular Access - Initial KRT - By Referral Time - New Zealand

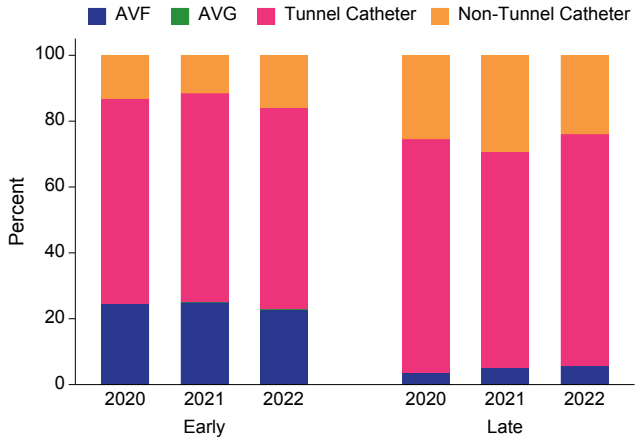
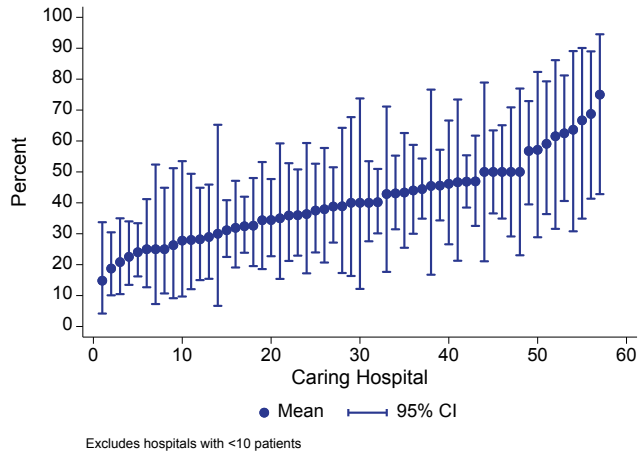


Table 4.6
Incident Vascular Access by Australian State/Territory and Country 2020-2022

State/Country	2020		2021		2022	
	AVF/AVG	CVC	AVF/AVG	CVC	AVF/AVG	CVC
QLD	207 (41%)	292 (59%)	232 (45%)	288 (55%)	206 (40%)	303 (60%)
NSW/ACT	294 (43%)	383 (57%)	292 (42%)	403 (58%)	302 (40%)	457 (60%)
VIC	266 (46%)	316 (54%)	216 (39%)	332 (61%)	220 (39%)	339 (61%)
TAS	11 (32%)	23 (68%)	15 (33%)	30 (67%)	12 (26%)	34 (74%)
SA	80 (49%)	84 (51%)	76 (48%)	82 (52%)	82 (45%)	101 (55%)
NT	31 (36%)	54 (64%)	46 (43%)	62 (57%)	38 (29%)	93 (71%)
WA	97 (35%)	181 (65%)	90 (34%)	174 (66%)	100 (34%)	190 (66%)
Australia	**986 (43%)**	**1333 (57%)**	**967 (41%)**	**1371 (59%)**	**960 (39%)**	**1517 (61%)**
New Zealand	**86 (21%)**	**316 (79%)**	**96 (22%)**	**331 (78%)**	**85 (20%)**	**341 (80%)**

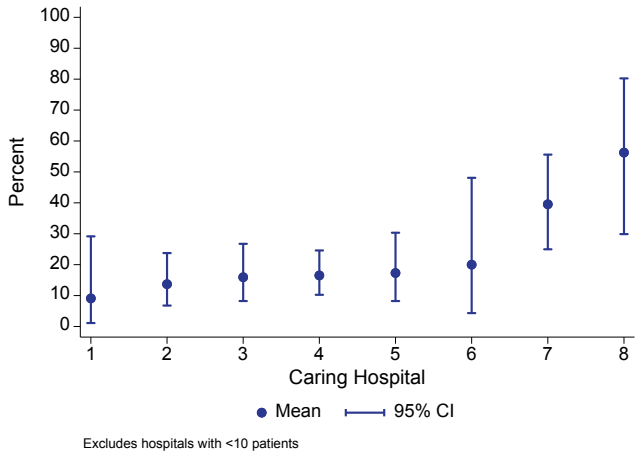
Figure 4.12 shows the proportion of patients in each hospital starting haemodialysis as their first KRT with an AVF/AVG, arranged from lowest to highest. In Australia, this ranged widely from 15-75%. The corresponding range in New Zealand was 9-56%. This wide variation reflects differences in practices, protocols, resources and patient case-mix among centres.

Figure 4.12.1
% Initial KRT HD Patients Starting with AVF/AVG - Australia 2022



Excludes hospitals with <10 patients

Figure 4.12.2
% Initial KRT HD Patients Starting with AVF/AVG - New Zealand 2022



Excludes hospitals with <10 patients

BACK TO CONTENTS

PREVALENT PATIENTS

Figures 4.13 to 4.16 and table 4.7 show dialysis access among prevalent (rather than incident) patients (those receiving haemodialysis at 31 December 2022).

Figure 4.13
Prevalent Haemodialysis Access

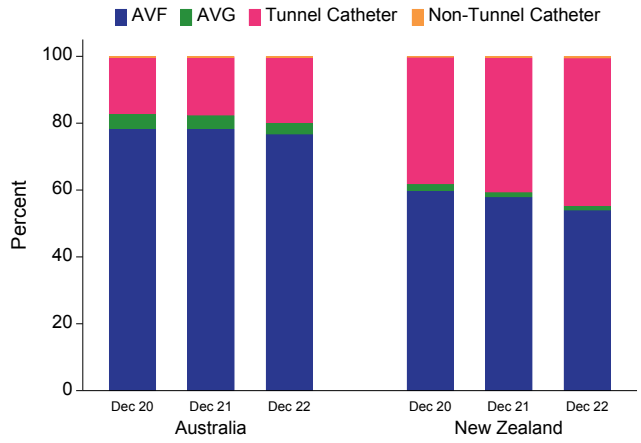


Figure 4.14
Prevalent Haemodialysis Access - By Age Group 2022

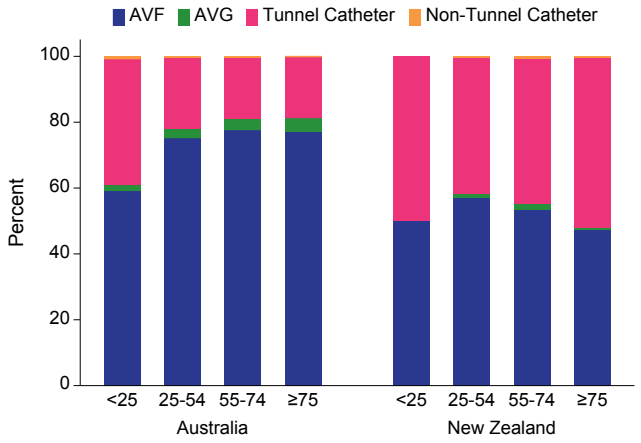


Figure 4.15.1
Prevalent Haemodialysis Access - By Gender - Australia

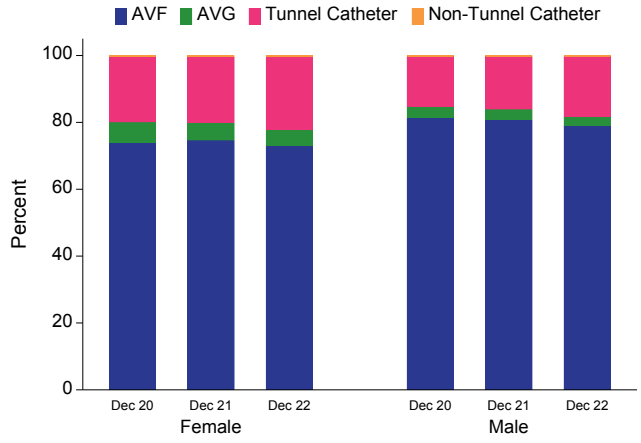


Figure 4.15.2
Prevalent Haemodialysis Access - By Gender - New Zealand

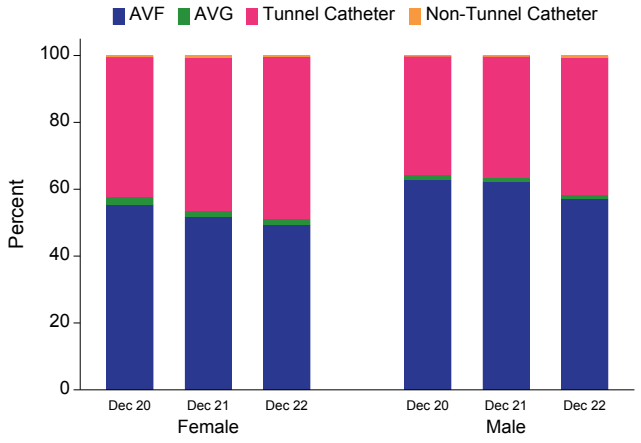
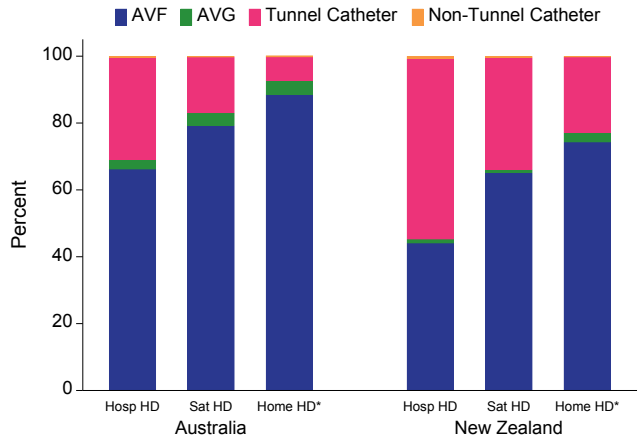


Figure 4.16
Prevalent Haemodialysis Access - By Location 2022



*Includes Community House HD

BACK TO CONTENTS

Table 4.7

Prevalent Vascular Access by Australian State/Territory and Country at 31 December 2022

State/Country	2020		2021		2022	
	AVF/AVG	CVC	AVF/AVG	CVC	AVF/AVG	CVC
QLD	1979 (85%)	358 (15%)	2072 (84%)	403 (16%)	2152 (82%)	480 (18%)
NSW/ACT	2883 (81%)	685 (19%)	2948 (81%)	709 (19%)	3006 (78%)	825 (22%)
VIC	2311 (83%)	460 (17%)	2354 (83%)	490 (17%)	2309 (81%)	542 (19%)
TAS	128 (74%)	46 (26%)	127 (70%)	54 (30%)	121 (64%)	67 (36%)
SA	728 (88%)	104 (13%)	752 (88%)	104 (12%)	744 (84%)	144 (16%)
NT	630 (91%)	62 (9%)	651 (92%)	59 (8%)	662 (89%)	85 (11%)
WA	972 (78%)	282 (22%)	967 (76%)	298 (24%)	1024 (76%)	332 (24%)
Australia	**9631 (83%)**	**1997 (17%)**	**9871 (82%)**	**2117 (18%)**	**10018 (80%)**	**2475 (20%)**
New Zealand	**1270 (62%)**	**785 (38%)**	**1316 (59%)**	**902 (41%)**	**1240 (55%)**	**1000 (45%)**

Figure 4.17 shows the proportion of haemodialysis patients at each hospital dialysing with an AVF/AVG on 31st December 2022, arranged from lowest to highest. In Australia, these proportions varied widely from 57-100%. The corresponding range in New Zealand was 42-78%.

Figure 4.17.1

% Prevalent HD Patients Dialysing with AVF/AVG - Australia 31 December 2022

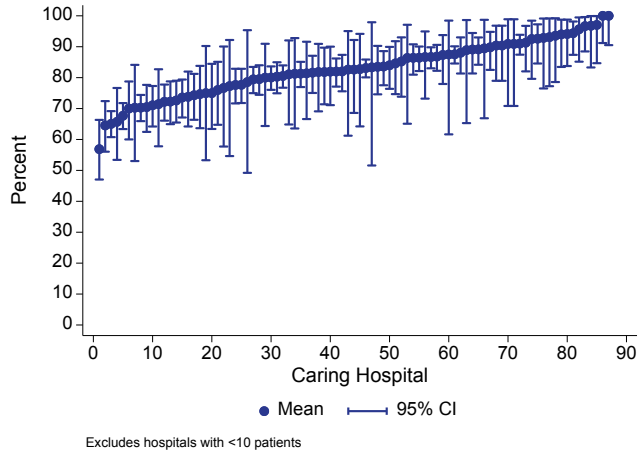
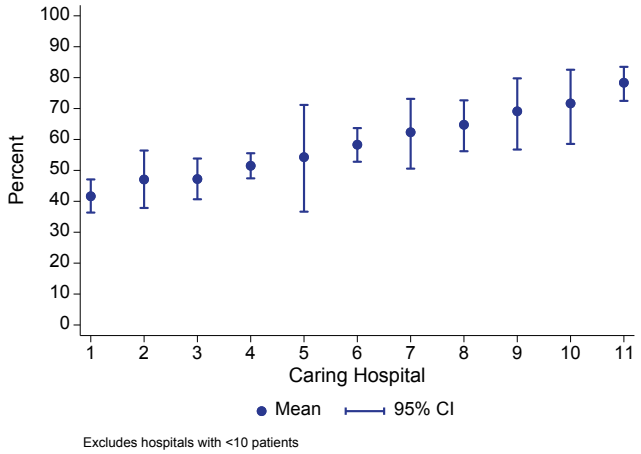


Figure 4.17.2

% Prevalent HD Patients Dialysing with AVF/AVG - New Zealand 31 December 2022



BACK TO CONTENTS

DIALYSIS PRESCRIPTION

HOURS, SESSIONS AND BLOOD FLOW

Table 4.8
Blood Flow Rate by Type of Access - December 2022

Blood Flow Rate	Australia				New Zealand			
	AVF	AVG	CVC	Total	AVF	AVG	CVC	Total
<200	18 (0.2%)	0 (0.0%)	23 (0.9%)	**41 (0.3%)**	0 (0.0%)	0 (0.0%)	2 (0.2%)	**2 (0.1%)**
200-249	107 (1.1%)	5 (1.1%)	75 (3.0%)	**187 (1.5%)**	29 (2.4%)	2 (6.2%)	28 (2.8%)	**59 (2.5%)**
250-299	1294 (13.5%)	80 (18.2%)	833 (33.7%)	**2215 (17.2%)**	197 (16.3%)	9 (28.1%)	288 (28.8%)	**496 (20.8%)**
300-349	6656 (69.5%)	310 (70.5%)	1471 (59.5%)	**8452 (65.7%)**	718 (59.4%)	16 (50.0%)	644 (64.4%)	**1385 (58.0%)**
350-399	1257 (13.1%)	43 (9.8%)	66 (2.7%)	**1366 (10.6%)**	248 (20.5%)	4 (12.5%)	36 (3.6%)	**288 (12.1%)**
400+	236 (2.5%)	0 (0.0%)	0 (0.0%)	**236 (1.8%)**	16 (1.3%)	0 (0.0%)	2 (0.2%)	**18 (0.8%)**
Total	9578	440	2474	12860	1208	32	1000	2389

* CVV-HD Patients excluded from Total.

** Blood Flow Rate or Type of Access Not Reported for 386 Australian and 150 New Zealand patients.

Figure 4.18.1
Distribution of Blood Flow Rates - Prevalent Haemodialysis - Australia

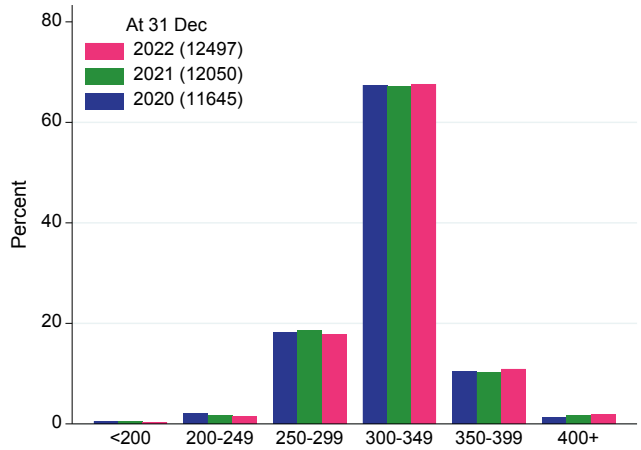
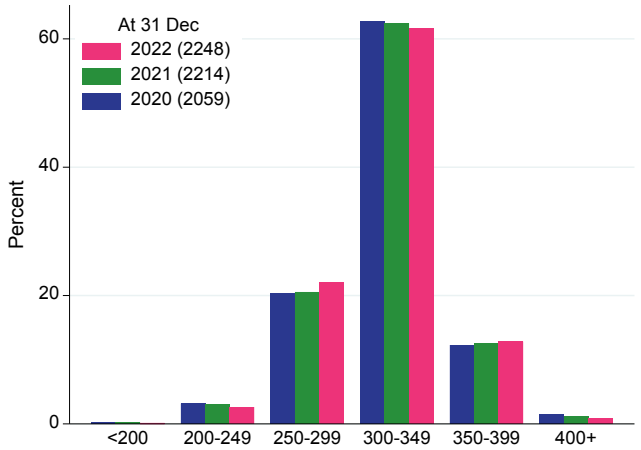


Figure 4.18.2
Distribution of Blood Flow Rates - Prevalent Haemodialysis - New Zealand



BACK TO CONTENTS

Table 4.9 shows the number of weekly sessions, and hours per session, at 31 December 2022. Figures 4.19 and 4.20 show HD frequency and session length respectively over 2020-2022. Figure 4.21 combines sessions and session length to show the total number of weekly hours of HD over 2020-2022.

Table 4.9
Duration and Number of Sessions per Week - December 2022

Country	Sessions per week	Hours of Each Treatment					
		<4	4	4.5	5	>5	Total
Australia	<3	105 (13.0%)	457 (56.6%)	128 (15.9%)	113 (14.0%)	4 (0.5%)	807
	3	467 (4.2%)	4957 (44.4%)	2583 (23.2%)	2780 (24.9%)	367 (3.3%)	11154
	3.1-4.9	36 (7.5%)	104 (21.6%)	54 (11.2%)	118 (24.5%)	170 (35.3%)	482
	5+	24 (40.7%)	8 (13.6%)	3 (5.1%)	6 (10.2%)	18 (30.5%)	59
	Total	**632 (5.1%)**	**5526 (44.2%)**	**2768 (22.1%)**	**3017 (24.1%)**	**559 (4.5%)**	12502
New Zealand	<3	6 (12.0%)	13 (26.0%)	4 (8.0%)	26 (52.0%)	1 (2.0%)	50
	3	42 (2.1%)	666 (33.6%)	506 (25.5%)	628 (31.6%)	143 (7.2%)	1985
	3.1-4.9	6 (3.0%)	49 (24.1%)	44 (21.7%)	56 (27.6%)	48 (23.6%)	203
	5+	3 (30.0%)	0 (0.0%)	1 (10.0%)	3 (30.0%)	3 (30.0%)	10
	Total	**57 (2.5%)**	**728 (32.4%)**	**555 (24.7%)**	**713 (31.7%)**	**195 (8.7%)**	2248

* Intermediate durations are rounded up, e.g. 4.25 is included in 4.5.

** Hours or number of sessions were not reported for 359 Australian and 141 New Zealand patients.

Figure 4.19.1
Haemodialysis Frequency Per Week - Prevalent Haemodialysis - Australia

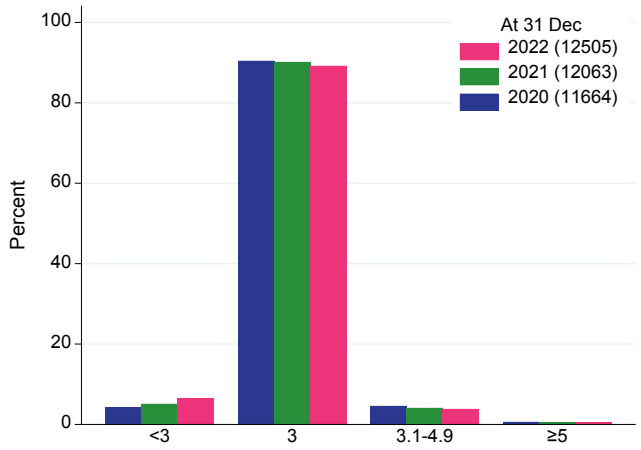
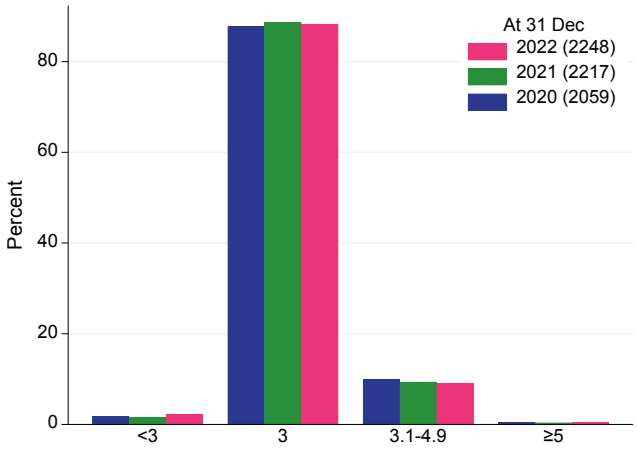


Figure 4.19.2
Haemodialysis Frequency Per Week - Prevalent Haemodialysis - New Zealand



BACK TO CONTENTS

Figure 4.20.1

Haemodialysis Session Length (Hours) - Prevalent Haemodialysis - Australia

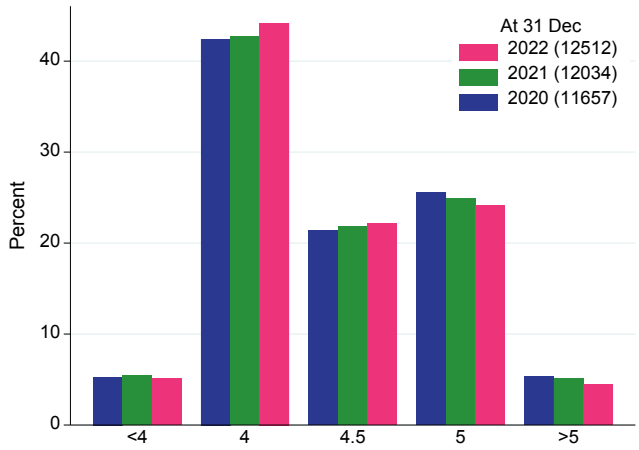


Figure 4.20.2

Haemodialysis Session Length (Hours) - Prevalent Haemodialysis - New Zealand

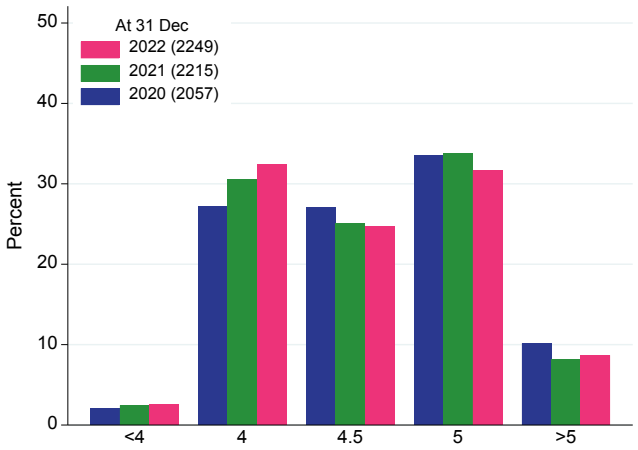


Figure 4.21.1

Haemodialysis Duration (Hours Per Week) - Prevalent Haemodialysis - Australia

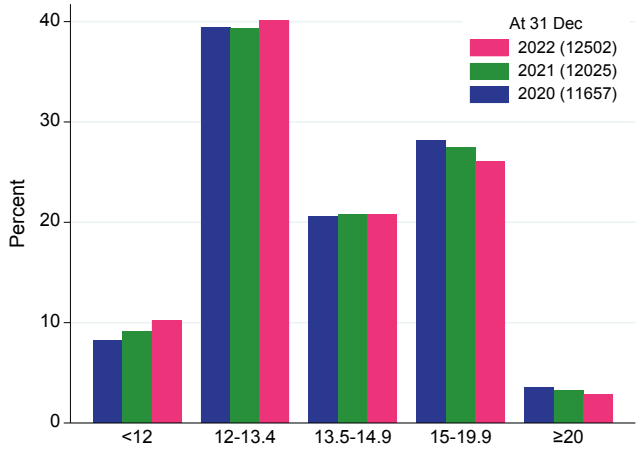
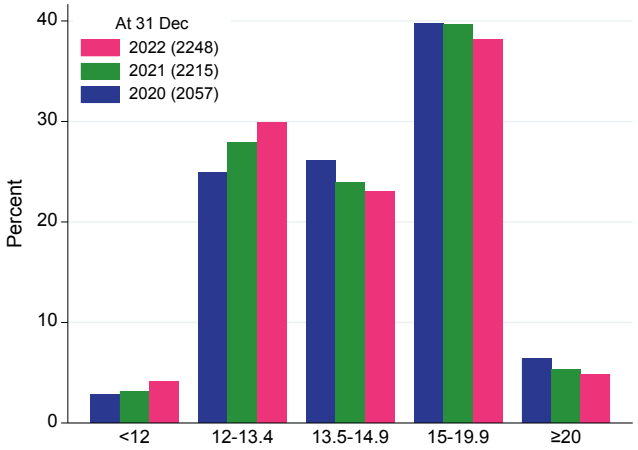


Figure 4.21.2

Haemodialysis Duration (Hours Per Week) - Prevalent Haemodialysis - New Zealand



Figures 4.22-4.24 show trends in dialysis prescription. Tables 4.10-4.12 present these same data for 2019-2022 by state and country.

Figure 4.22
Percentage of HD Patients Dialysing More than 3 Days Per Week

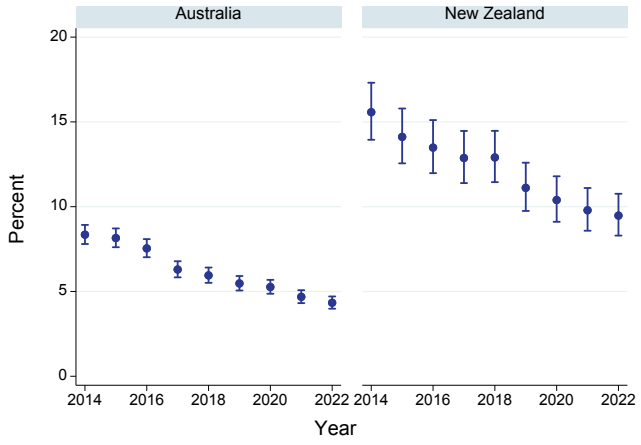


Figure 4.23
Percentage of HD Patients Dialysing 3 Days Per Week Dialysing 5 Hours or Longer Per Session

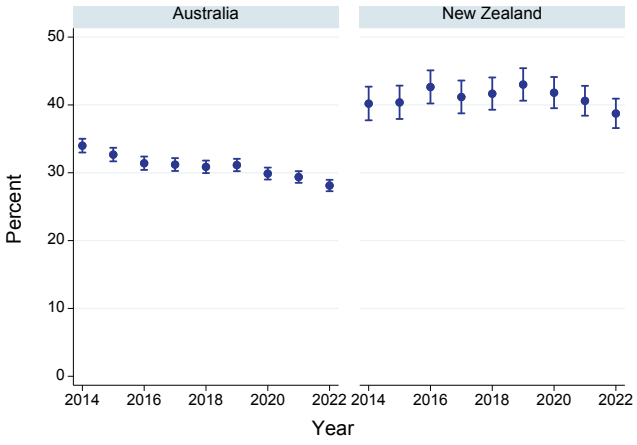
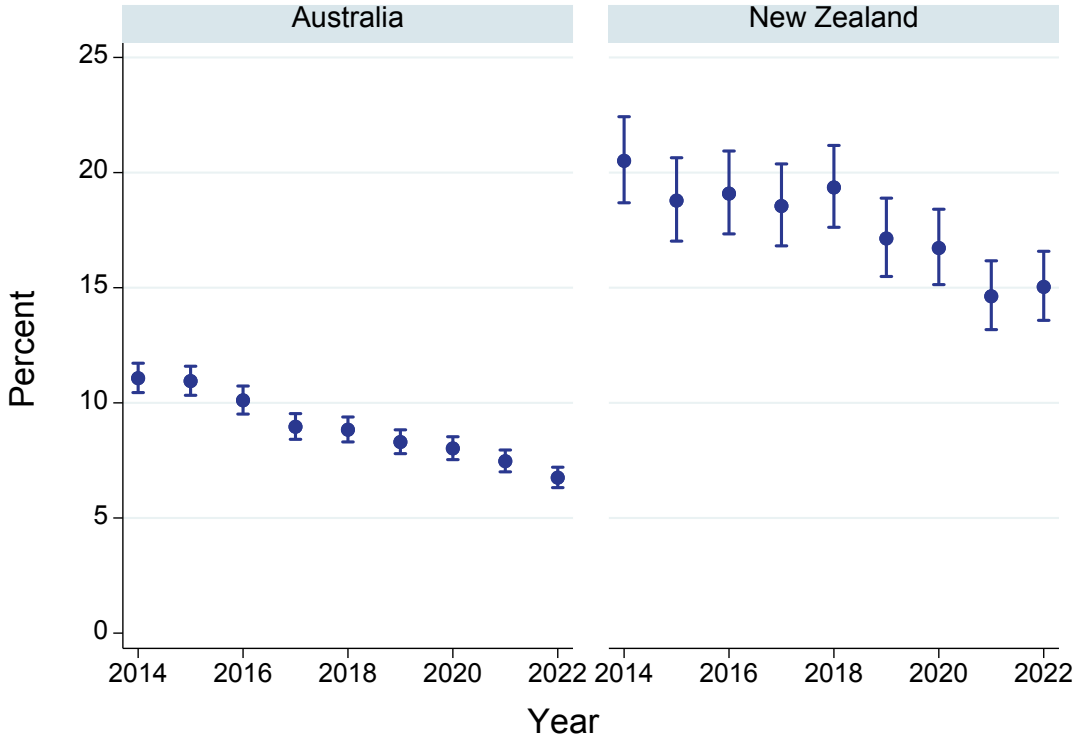


Figure 4.24
Percentage of HD Patients Dialysing >15 Hours Per Week



BACK TO CONTENTS

Table 4.10
Haemodialysis >3 Sessions per Week by Australian State/Territory and Country 2019-2022

State	2019	2020	2021	2022
QLD	139 (6.1%)	113 (4.8%)	111 (4.5%)	116 (4.4%)
NSW/ACT	179 (5.2%)	179 (5.0%)	164 (4.4%)	162 (4.2%)
VIC	159 (6.2%)	190 (6.8%)	172 (6.0%)	154 (5.4%)
TAS	12 (6.2%)	16 (9.2%)	12 (6.6%)	7 (3.7%)
SA	32 (4.1%)	24 (2.9%)	25 (2.9%)	28 (3.2%)
NT	7 (1.0%)	5 (0.7%)	5 (0.7%)	8 (1.1%)
WA	81 (6.9%)	87 (6.9%)	76 (6.0%)	67 (4.9%)
Australia	**609 (5.5%)**	**614 (5.3%)**	**565 (4.7%)**	**542 (4.3%)**
New Zealand	**216 (11.1%)**	**214 (10.4%)**	**217 (9.8%)**	**213 (9.5%)**

Table 4.11
Haemodialysis ≥5 Hours per Session - Three Sessions per Week by Australian State/Territory and Country 2019-2022

State	2019	2020	2021	2022
QLD	569 (28.9%)	569 (27.7%)	508 (23.7%)	501 (22.3%)
NSW/ACT	1466 (47.8%)	1495 (46.6%)	1520 (46.0%)	1482 (43.7%)
VIC	705 (30.0%)	709 (28.1%)	761 (29.3%)	745 (28.5%)
TAS	31 (17.2%)	22 (14.2%)	20 (12.0%)	26 (14.8%)
SA	71 (9.6%)	70 (8.8%)	77 (9.5%)	85 (10.1%)
NT	220 (31.3%)	212 (31.1%)	226 (32.0%)	215 (29.3%)
WA	73 (7.0%)	74 (6.5%)	74 (6.6%)	82 (7.2%)
Australia	**3135 (31.1%)**	**3151 (29.9%)**	**3186 (29.4%)**	**3136 (28.1%)**
New Zealand	**723 (43.0%)**	**755 (41.8%)**	**797 (40.6%)**	**769 (38.7%)**

Table 4.12
Haemodialysis >15 Hours per Week by Australian State/Territory and Country 2019-2022

State	2019	2020	2021	2022
QLD	182 (8.0%)	156 (6.6%)	148 (6.0%)	139 (5.3%)
NSW/ACT	393 (11.5%)	412 (11.5%)	391 (10.6%)	371 (9.7%)
VIC	209 (8.1%)	230 (8.3%)	234 (8.2%)	206 (7.2%)
TAS	15 (7.7%)	18 (10.3%)	13 (7.2%)	11 (5.9%)
SA	32 (4.1%)	33 (4.0%)	31 (3.6%)	34 (3.8%)
NT	24 (3.4%)	15 (2.2%)	13 (1.8%)	18 (2.4%)
WA	68 (5.8%)	71 (5.6%)	68 (5.4%)	65 (4.8%)
Australia	**923 (8.3%)**	**935 (8.0%)**	**898 (7.5%)**	**844 (6.8%)**
New Zealand	**333 (17.1%)**	**344 (16.7%)**	**324 (14.6%)**	**338 (15.0%)**

BACK TO CONTENTS

HAEMODIALYSIS AND HAEMODIALFILTRATION

Figure 4.25 shows the change in percentage of haemodialysis patients treated with haemodiafiltration over time for Australia and New Zealand. Table 4.13 shows the use of high-flux dialysis and haemodiafiltration by state/territory and country in 2022.

Figure 4.25
Use of Haemodiafiltration - Prevalent Haemodialysis Patients 2013-2022

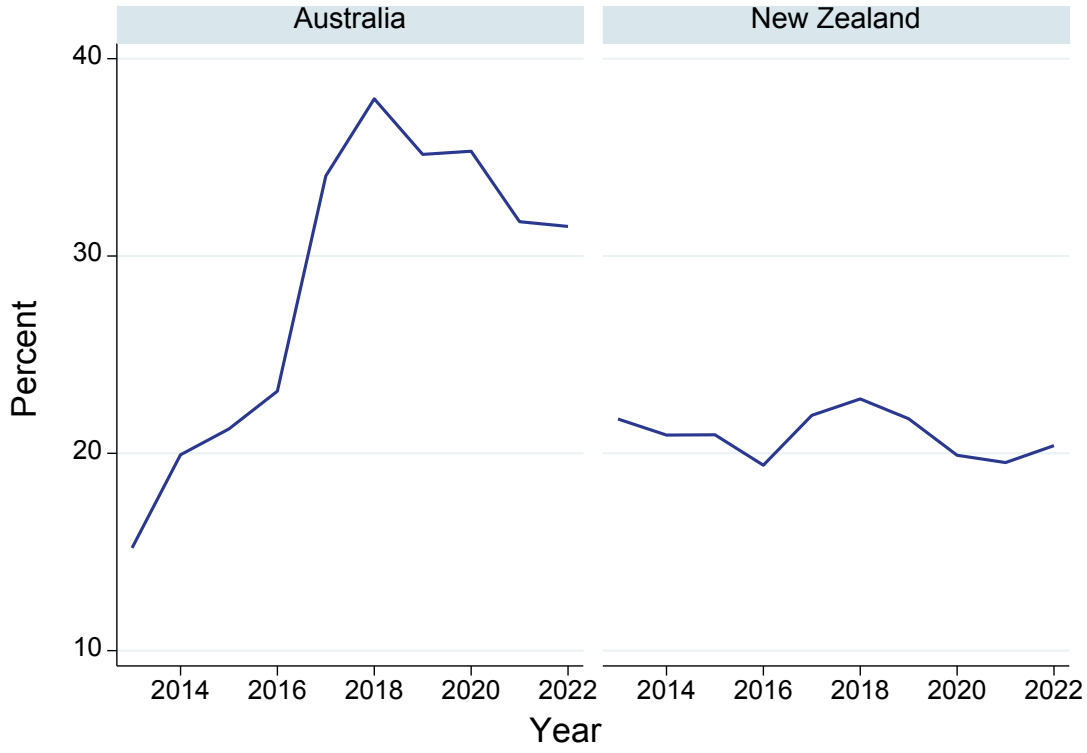


Table 4.13
Number of Patients Receiving Standard Haemodialysis (and Membrane Type), Haemofiltration and Haemodiafiltration - December 2022

HD Modality	QLD	NSW/ ACT	VIC	TAS	SA	NT	WA	Australia	New Zealand
Haemodialysis	1467 (55.7%)	2692 (70.0%)	2439 (84.5%)	188 (100.0%)	651 (73.3%)	698 (93.2%)	462 (33.9%)	8597 (68.5%)	1792 (79.6%)
High Flux	1294	2459	2190	160	649	415	317	7484	1466
Non-High Flux*	173	227	235	27	2	281	144	1089	321
Unreported	0	6	14	1	0	2	1	24	5
Haemofiltration	1 (0.0%)	17 (0.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (0.3%)	1 (0.1%)	21 (0.2%)	1 (0.0%)
Haemodiafiltration	1167 (44.3%)	1135 (29.5%)	446 (15.5%)	0 (0.0%)	237 (26.7%)	49 (6.5%)	898 (66.0%)	3932 (31.3%)	458 (20.3%)
Total	**2635**	**3844**	**2885**	**188**	**888**	**749**	**1361**	**12550**	**2251**

*Non-High Flux includes low flux and mid-cut-off or other membranes.

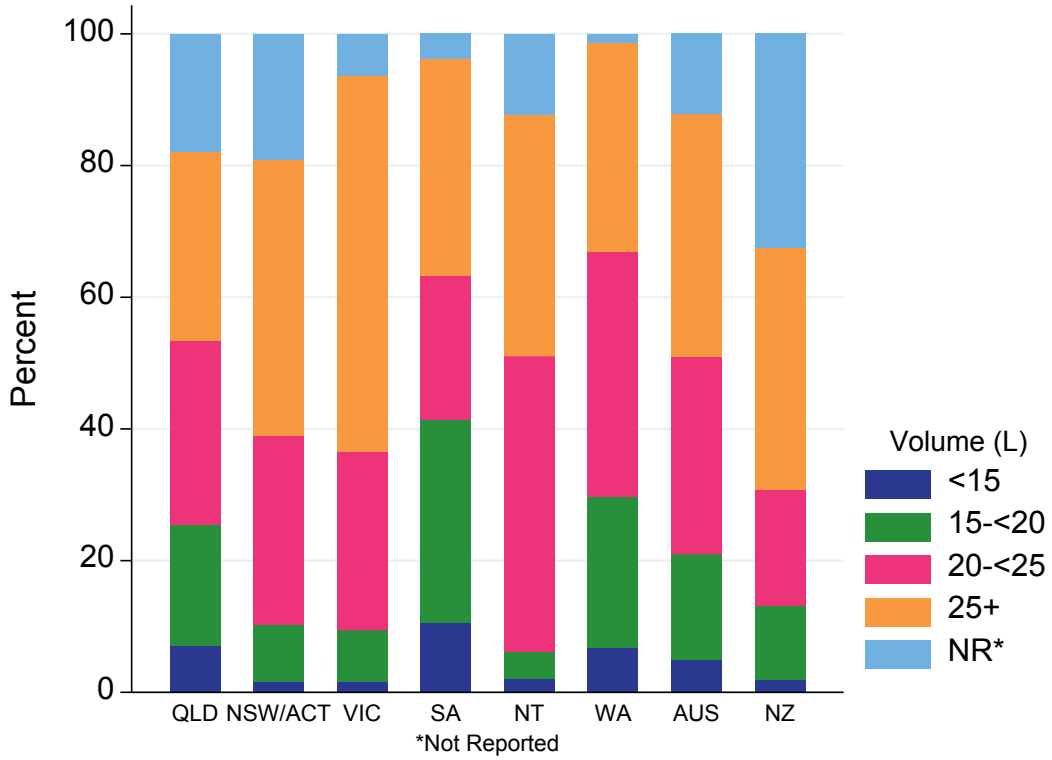
BACK TO CONTENTS

The mode of delivery of substitution fluid for haemodiafiltration is shown in table 4.14. In Australia and New Zealand, the predominant mode of delivery of substitution fluid for haemodiafiltration was post-dilution.

Table 4.14
Mode of delivery of substitution fluid in patients using haemodiafiltration - December 2022

Country	Haemodiafiltration Type	2018	2019	2020	2021	2022
Australia	Predilution	230 (6%)	265 (7%)	298 (7%)	307 (8%)	313 (8%)
	Mixed Dilution	156 (4%)	67 (2%)	60 (1%)	49 (1%)	35 (1%)
	Postdilution	3681 (91%)	3587 (92%)	3747 (91%)	3467 (91%)	3584 (91%)
	Total	**4067**	**3919**	**4105**	**3823**	**3932**
New Zealand	Predilution	167 (38%)	89 (21%)	98 (24%)	93 (22%)	125 (27%)
	Mixed Dilution	0 (0%)	0 (0%)	0 (0%)	2 (0%)	0 (0%)
	Postdilution	277 (62%)	336 (79%)	311 (76%)	334 (78%)	333 (73%)
	Total	**444**	**425**	**409**	**429**	**458**

Figure 4.26
HDF Substitution Volume by State/Territory and Country - at 31 Dec 2022



BACK TO CONTENTS

PLACE OF DIALYSIS AND SELF-CARE

Community house haemodialysis has been collected as a 'sub-modality' of haemodialysis since 2020. Community house haemodialysis enables patients/carers to undertake haemodialysis, independent of nursing or medical supervision, in a shared house or community facility.

Table 4.15
Prevalent Haemodialysis Patients by Location 2018-2022

Country	Modality	2018	2019	2020	2021	2022
Australia	Hospital	2931 (26%)	2994 (26%)	3009 (25%)	3185 (25%)	3417 (27%)
	Satellite	7131 (64%)	7544 (65%)	7911 (66%)	8217 (66%)	8310 (65%)
	Home	1058 (10%)	1074 (9%)	1108 (9%)	1116 (9%)	1123 (9%)
	Community House	N/A	N/A	25 (0%)	21 (0%)	11 (0%)
	Total	**11120**	**11612**	**12053**	**12539**	**12861**
New Zealand	Hospital	1076 (54%)	1134 (56%)	1237 (58%)	1365 (59%)	1432 (60%)
	Satellite	501 (25%)	492 (24%)	524 (24%)	573 (25%)	574 (24%)
	Home	427 (21%)	407 (20%)	353 (16%)	363 (16%)	355 (15%)
	Community House	N/A	N/A	32 (1%)	28 (1%)	28 (1%)
	Total	**2004**	**2033**	**2146**	**2329**	**2389**

Community House was only collected from 2020 onwards as a modality of treatment.

Self-care is defined as dialysis performed by the patient with minimal assistance from a health care professional. Self-care enables patients to perform dialysis procedures independent of nursing or medical assistance in any type of facility or community setting. It does not refer to Activities of Daily Living.

Table 4.16
Haemodialysis Patients by Self-care 2022

Country	Modality	Self Care	Not Self Care	Not Reported	Total
Australia	Hospital	335 (10%)	2966 (87%)	116 (3%)	**3417**
	Satellite	1163 (14%)	6981 (84%)	166 (2%)	**8310**
	Home	921 (82%)	173 (15%)	29 (3%)	**1123**
	Community House	4 (36%)	3 (27%)	4 (36%)	**11**
	Total	**2423 (19%)**	**10123 (79%)**	**315 (2%)**	12861
New Zealand	Hospital	85 (6%)	1268 (89%)	79 (6%)	**1432**
	Satellite	159 (28%)	361 (63%)	54 (9%)	**574**
	Home	308 (87%)	36 (10%)	11 (3%)	**355**
	Community House	21 (75%)	7 (25%)	0 (0%)	**28**
	Total	**573 (24%)**	**1672 (70%)**	**144 (6%)**	2389

BACK TO CONTENTS

HOME HAEMODIALYSIS

PREVALENCE

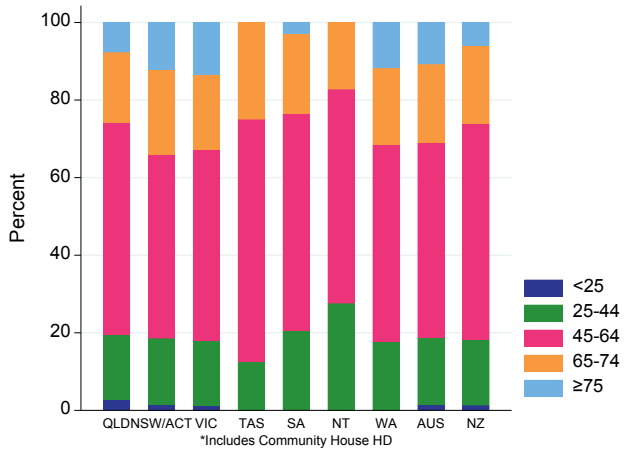
The distribution of prevalent home haemodialysis patients (including community house haemodialysis patients) by state is shown in table 4.17. The 2022 data are further stratified by age in figure 4.27.

Table 4.17
Number (%) of Prevalent Haemodialysis Patients Treated with Home Haemodialysis* 2018 - 2022

State	2018	2019	2020	2021	2022
QLD	261 (11.8%)	254 (10.9%)	240 (9.7%)	244 (9.3%)	247 (9.1%)
NSW/ACT	446 (13.2%)	449 (12.7%)	469 (12.8%)	469 (12.4%)	485 (12.4%)
VIC	180 (6.8%)	189 (6.9%)	227 (7.9%)	239 (8.1%)	229 (7.8%)
TAS	12 (6.6%)	11 (5.6%)	8 (4.5%)	9 (4.8%)	8 (4.3%)
SA	34 (4.4%)	37 (4.6%)	29 (3.5%)	32 (3.7%)	34 (3.8%)
NT	34 (4.8%)	38 (5.2%)	56 (7.7%)	42 (5.7%)	29 (3.8%)
WA	91 (7.5%)	96 (7.5%)	104 (7.9%)	102 (7.2%)	102 (7.0%)
Australia	**1058 (9.5%)**	**1074 (9.2%)**	**1133 (9.4%)**	**1137 (9.1%)**	**1134 (8.8%)**
New Zealand	427 (21.3%)	**407 (20.0%)**	**385 (17.9%)**	**391 (16.8%)**	**383 (16.0%)**

*Includes Community House HD

Figure 4.27
Age Distribution of Home HD* Patients by State/ Territory and Country - at 31 Dec 2022



BACK TO CONTENTS

Figure 4.28.1

Home HD Percent of all HD by Age at 31 Dec 2022 - Australia*

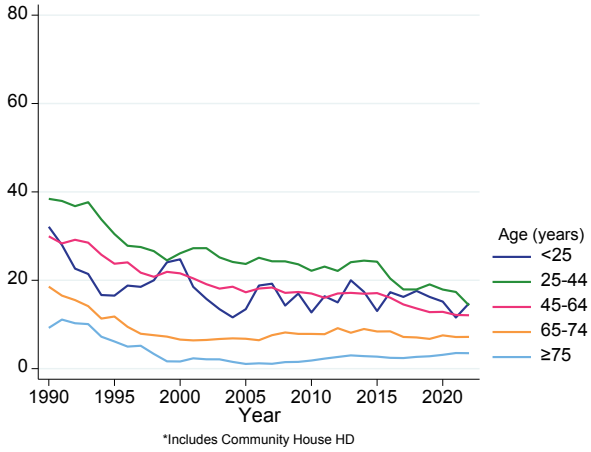
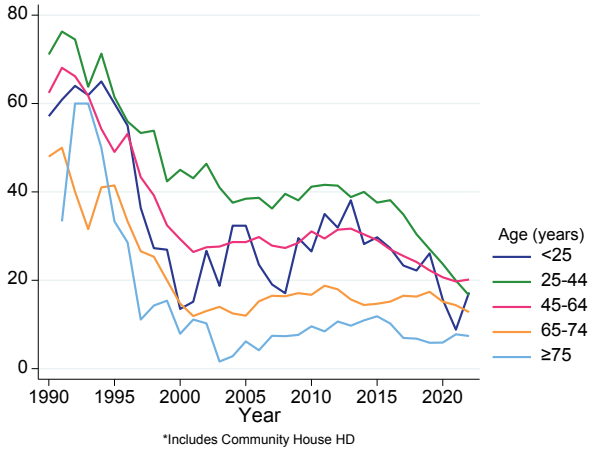


Figure 4.28.2

Home HD Percent of all HD by Age at 31 Dec 2022 - New Zealand*



There is substantial variation between hospitals, and between countries, in the proportion of haemodialysis patients who dialyse at home (figure 4.29).

Figure 4.29.1

% Haemodialysis Patients on Home HD - Australia 31 December 2022*

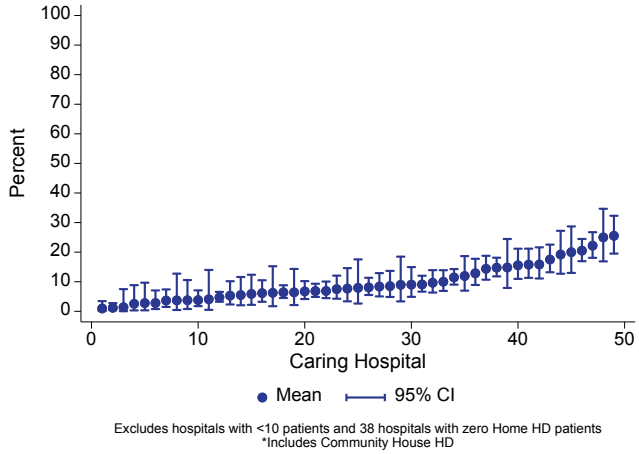
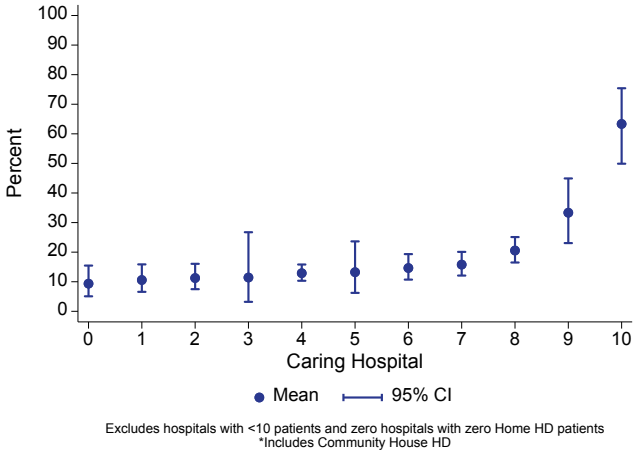


Figure 4.29.2

% Haemodialysis Patients on Home HD - New Zealand 31 December 2022*



BACK TO CONTENTS

HOME HAEMODIALYSIS SURVIVAL AND TREATMENT FAILURE

Home haemodialysis treatment failure refers to cessation of home haemodialysis (including community house haemodialysis) to have haemodialysis in satellite or hospital for more than 30 days, to do peritoneal dialysis for more than 30 days, or due to death of the patient. Receipt of a kidney transplant is not a 'treatment failure' and so follow-up is censored at transplantation, or 31 Dec 2022. Only patients initiating home haemodialysis within the first 365 days of KRT commencement are included. When death of a patient is counted as a censoring event (rather than 'failure'), the differences between the age groups become less apparent (figure 4.32).

Figure 4.30
Technique Survival - Home Haemodialysis* 2012 - 2022

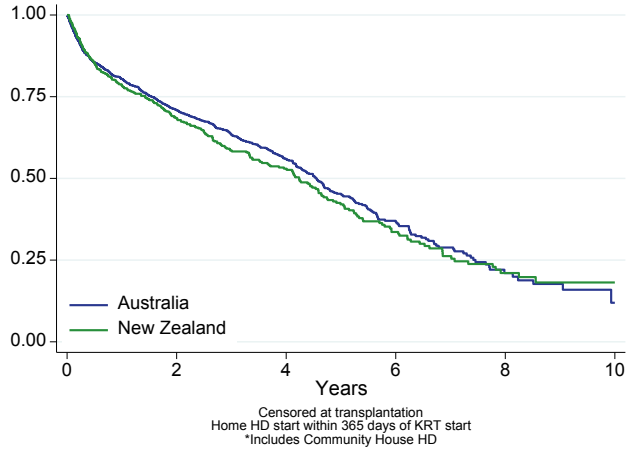


Figure 4.31
Technique Survival by Age Group - Home Haemodialysis* 2012 - 2022

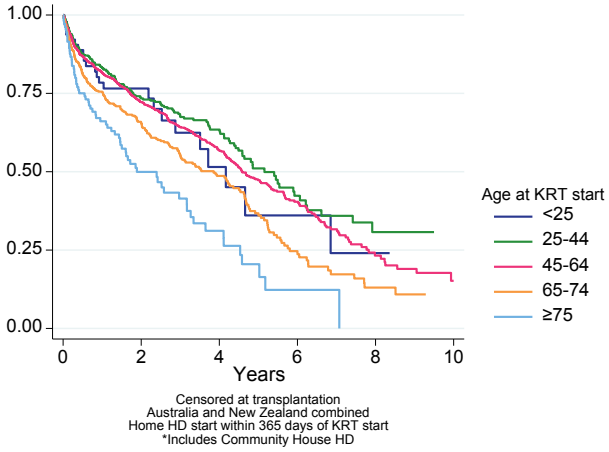
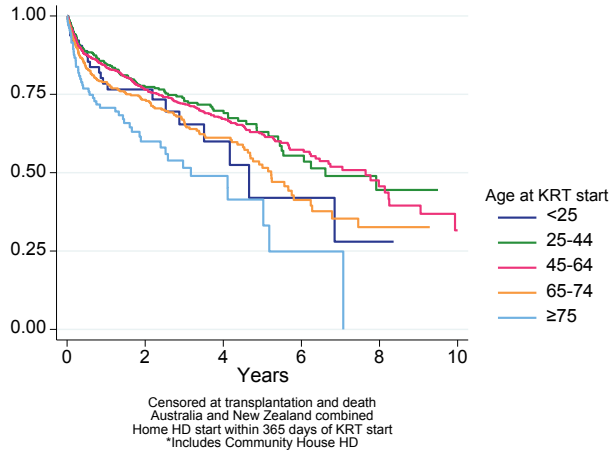


Figure 4.32
Death-Censored Technique Survival by Age Group - Home Haemodialysis 2012 - 2022



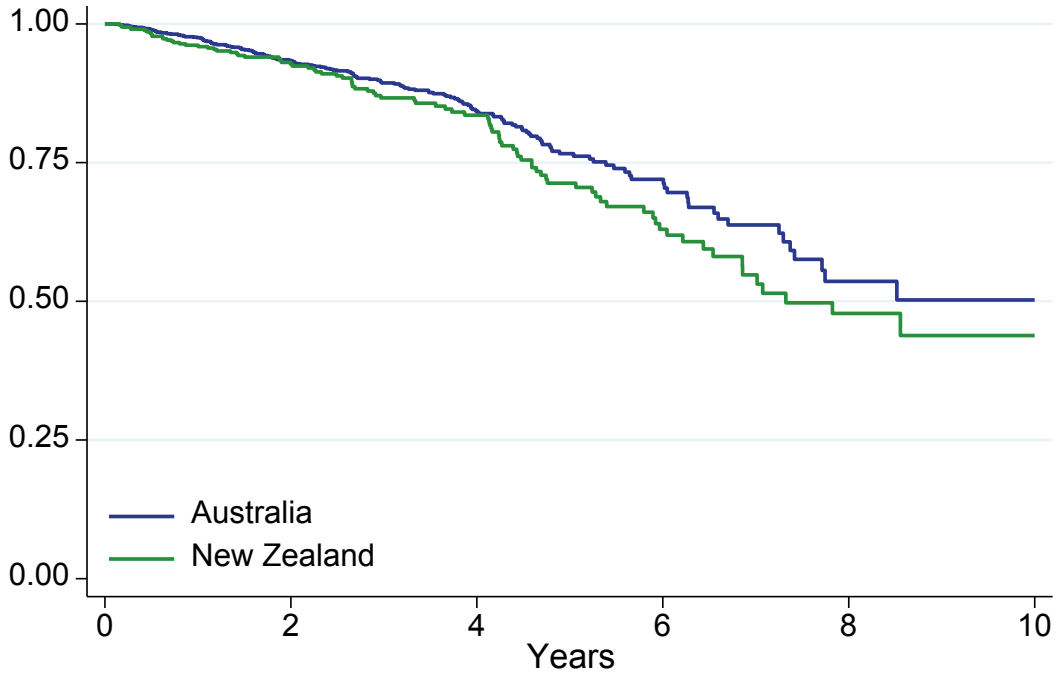
BACK TO CONTENTS

The modality or status following home haemodialysis treatment failure or censoring for 2012 - 2022 are shown in table 4.18.

Table 4.18
Reason for Home Haemodialysis Treatment Failure 2012-2022

Modality or Status Following Treatment Failure	Australia	New Zealand
Other HD ≥ 30 days	471 (26%)	178 (31%)
PD ≥ 30 days	46 (3%)	11 (2%)
Transplant	548 (30%)	115 (20%)
Lost to Follow Up	2 (0%)	0 (0%)
Renal Recovery	15 (1%)	4 (1%)
End of follow-up	542 (30%)	179 (31%)
Death	156 (9%)	83 (14%)
Withdrawal from dialysis	21 (1%)	8 (1%)
Total	1801	578

Figure 4.33
Patient Survival - Home Haemodialysis* 2012 - 2022



Censored at transplantation and change of dialysis modality
Home HD start within 365 days of KRT start
*Includes Community House HD

BACK TO CONTENTS

Figure 4.34.1

Home Haemodialysis Frequency Per Week - Prevalent Home HD* - Australia*

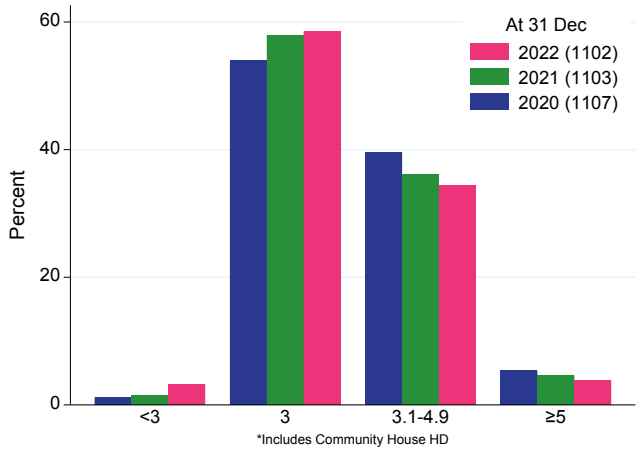


Figure 4.34.2

Home Haemodialysis Frequency Per Week - Prevalent Home HD* - New Zealand*

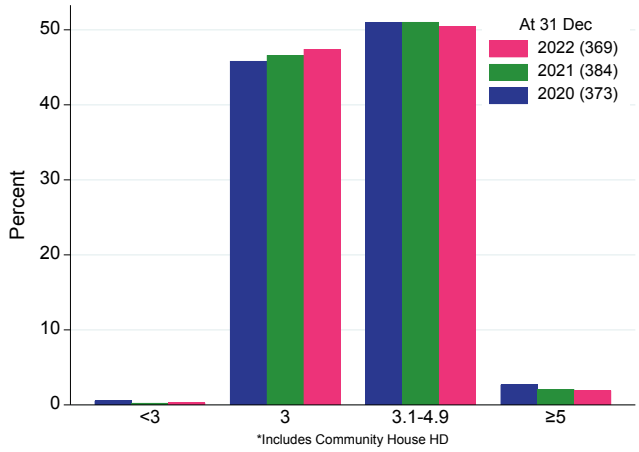


Figure 4.35.1

Home Haemodialysis Session Length (Hours) - Prevalent Home HD* - Australia*

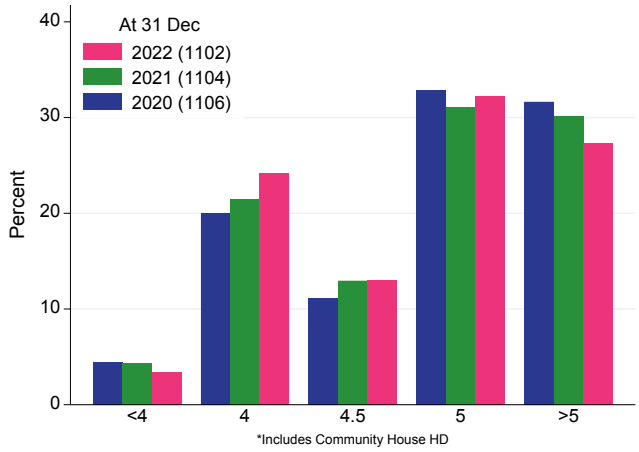


Figure 4.35.2

Home Haemodialysis Session Length (Hours) - Prevalent Home HD* - New Zealand*

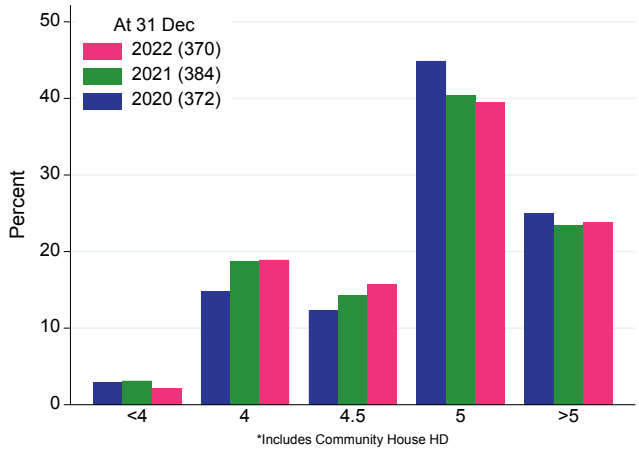


Figure 4.36.1

Home Haemodialysis Duration (Hours Per Week) - Prevalent Home HD* - Australia*

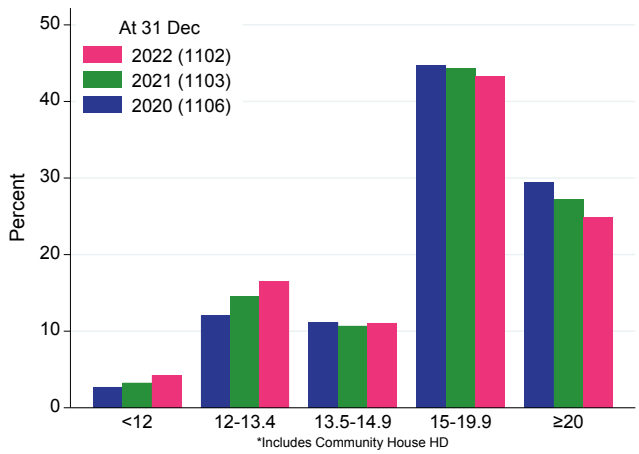
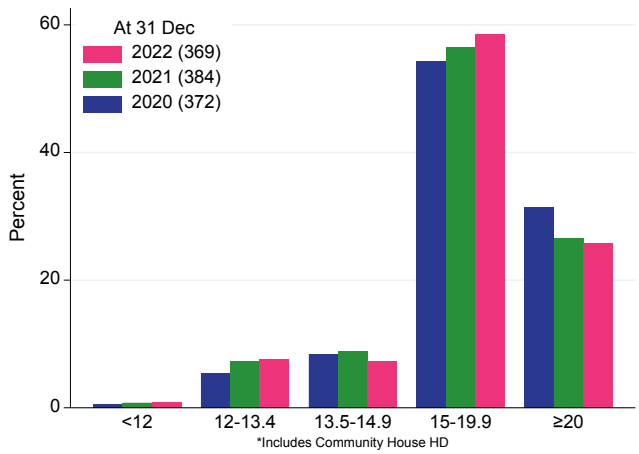


Figure 4.36.2

Home Haemodialysis Duration (Hours Per Week) - Prevalent Home HD* - New Zealand*



BACK TO CONTENTS

Figure 4.37

Percentage of Home HD Patients Dialysing More than 3 Days Per Week*

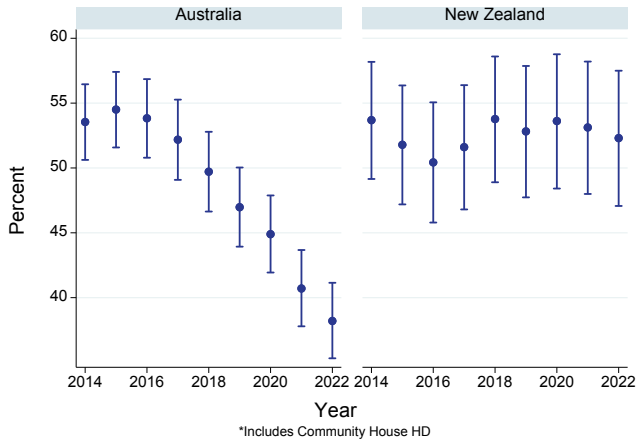


Figure 4.38

Percentage of Home HD Patients Dialysing 3 Days Per Week Dialysing 5 Hours or Longer Per Session*

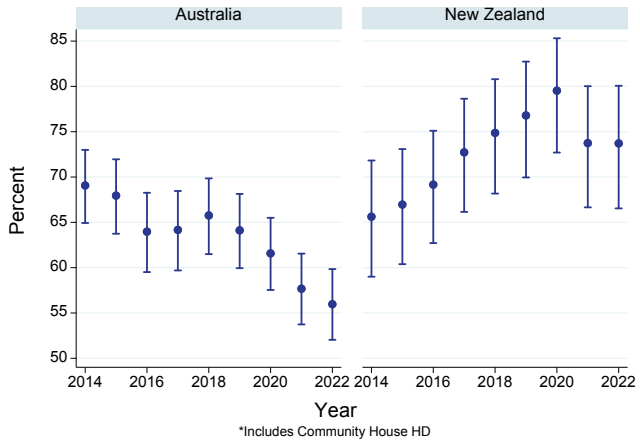
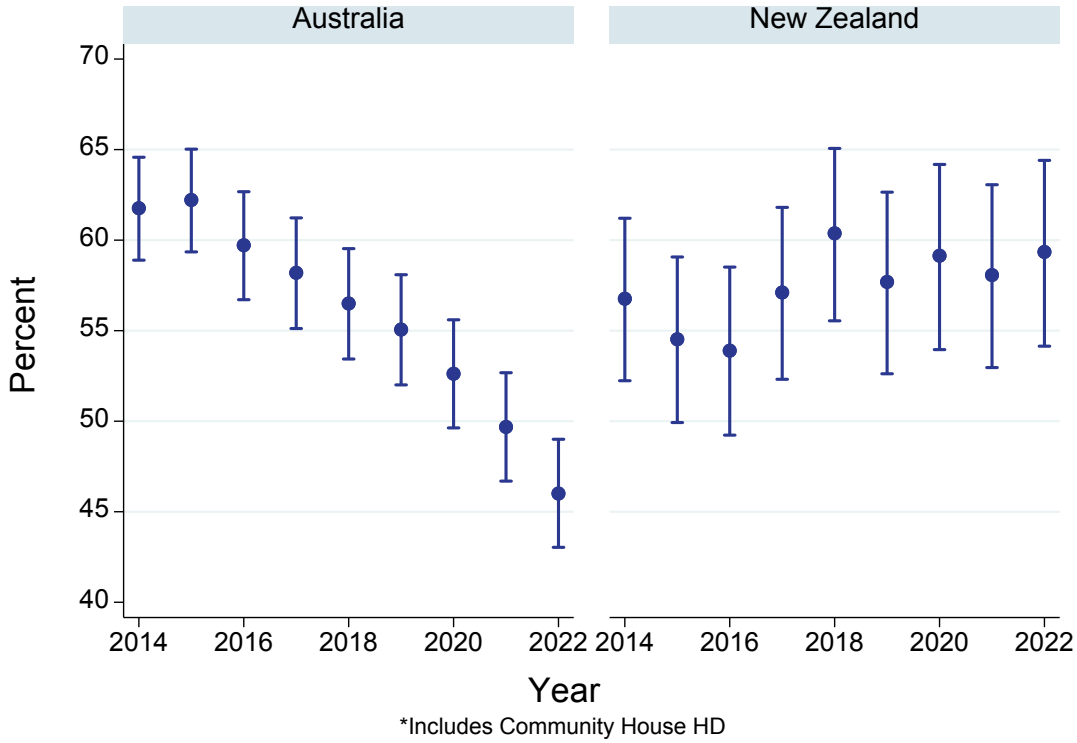


Figure 4.39

Percentage of Home HD Patients Dialysing >15 Hours Per Week*



BACK TO CONTENTS

LABORATORY BASED DATA AT THE TIME OF THE ANNUAL SURVEY

ANAEMIA MANAGEMENT

The median haemoglobin at 31 Dec 2022 of haemodialysis patients at each centre ranged from 101 to 122g/L in Australia and 105 to 113g/L in New Zealand (Figure 4.40). 79% of patients in Australia, and 79% in New Zealand were prescribed an erythropoiesis-stimulating agent (ESA) at the time of the annual survey.

Figure 4.40.1
Haemoglobin in Haemodialysis Patients - Australia 31 December 2022

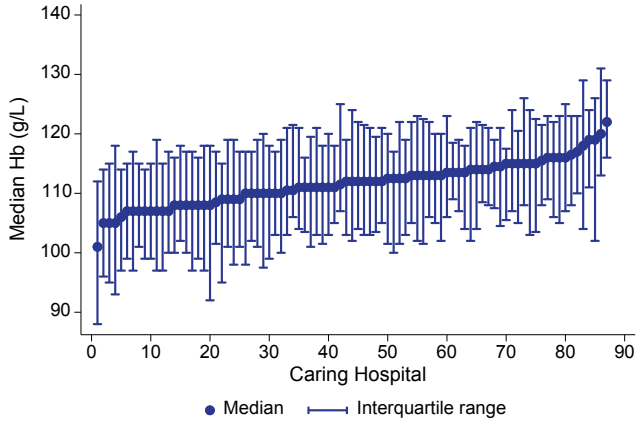
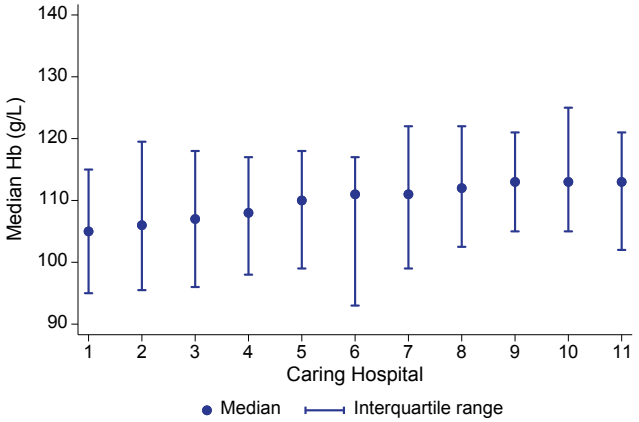


Figure 4.40.2
Haemoglobin in Haemodialysis Patients - New Zealand 31 December 2022



The proportion of patients on haemodialysis prescribed an ESA whose haemoglobin was between 100-115g/L ranged from 16-67% in Australia and 33-50% in New Zealand (Figure 4.41).

Figure 4.41.1
% Haemodialysis Patients receiving an ESA with Hb 100-115 g/L - Australia 31 December 2022

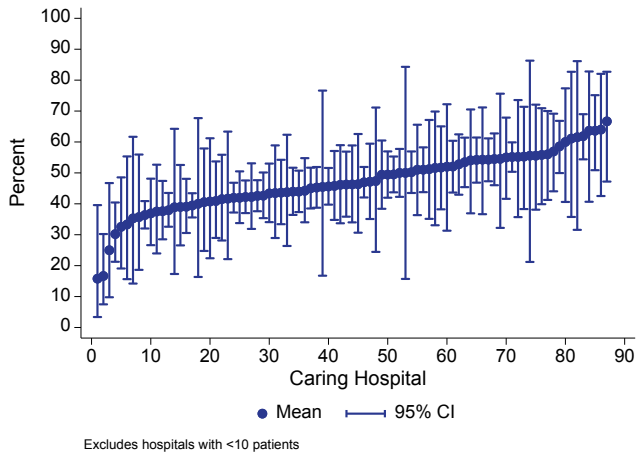
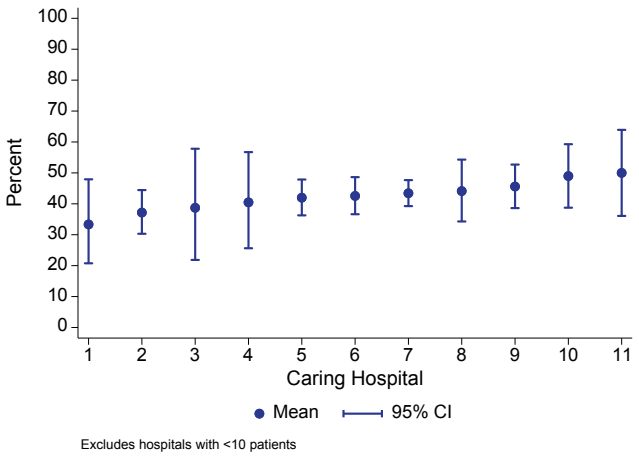


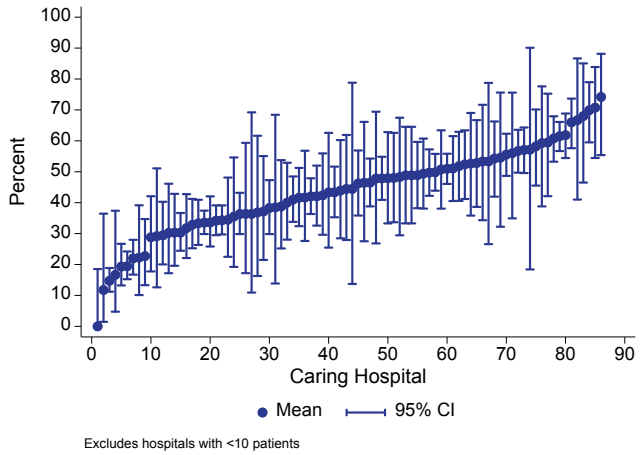
Figure 4.41.2
% Haemodialysis Patients receiving an ESA with Hb 100-115 g/L - New Zealand 31 December 2022



BACK TO CONTENTS

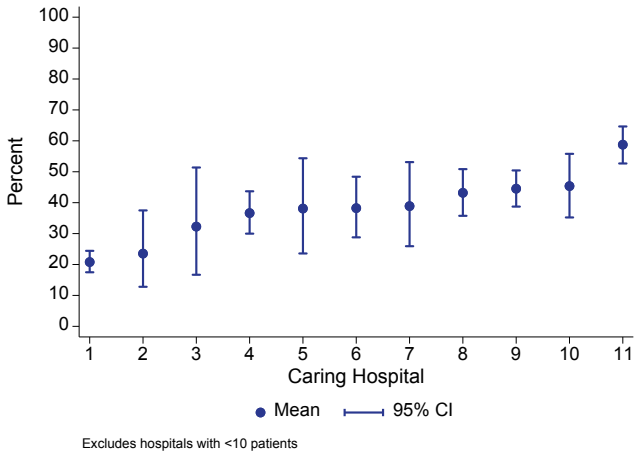
The proportion of patients receiving an ESA considered iron replete (ferritin between 200-500µg/L) ranged from 0-74% in Australia and 21-59% in New Zealand (figure 4.42). Figure 4.43 presents equivalent data for transferrin saturation.

Figure 4.42.1
% Haemodialysis Patients receiving an ESA with Ferritin 200-500 µg/L - Australia 31 December 2022



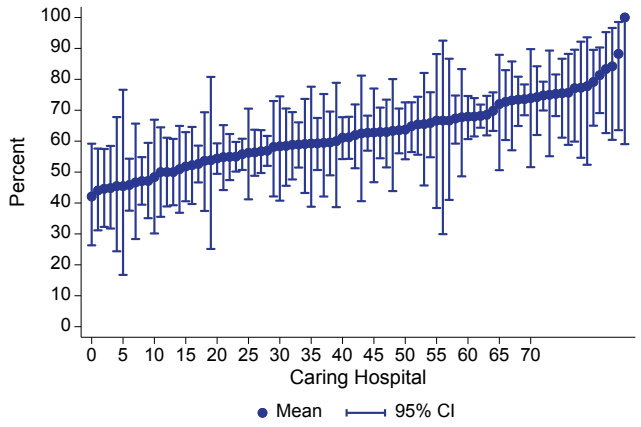
Excludes hospitals with <10 patients

Figure 4.42.2
% Haemodialysis Patients receiving an ESA with Ferritin 200-500 µg/L - New Zealand 31 December 2022



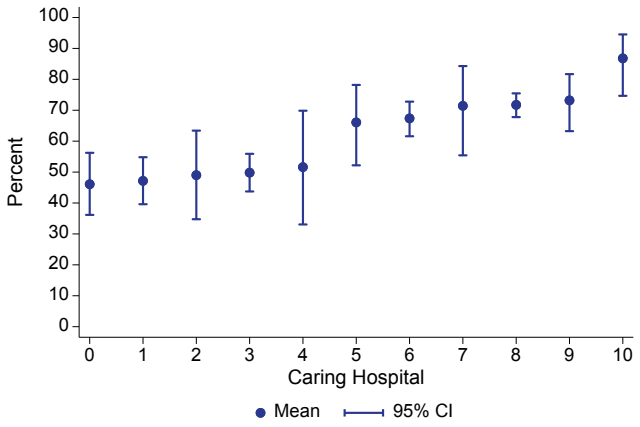
Excludes hospitals with <10 patients

Figure 4.43.1
% Haemodialysis Patients receiving an ESA with TSat>20% - Australia 31 December 2022



Excludes hospitals with <10 patients

Figure 4.43.2
% Haemodialysis Patients receiving an ESA with TSat>20% - New Zealand 31 December 2022



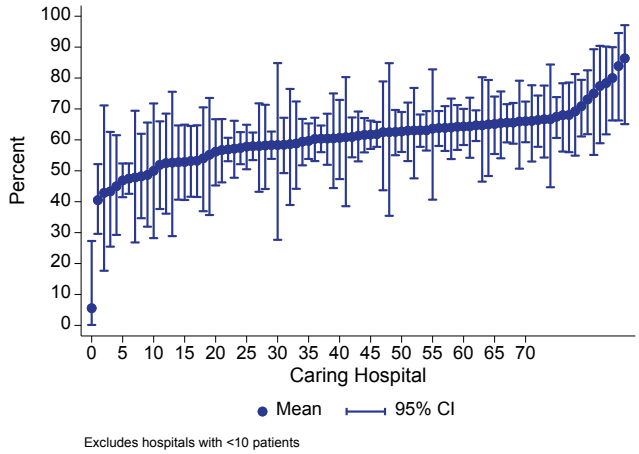
Excludes hospitals with <10 patients

BACK TO CONTENTS

CALCIUM AND PHOSPHATE

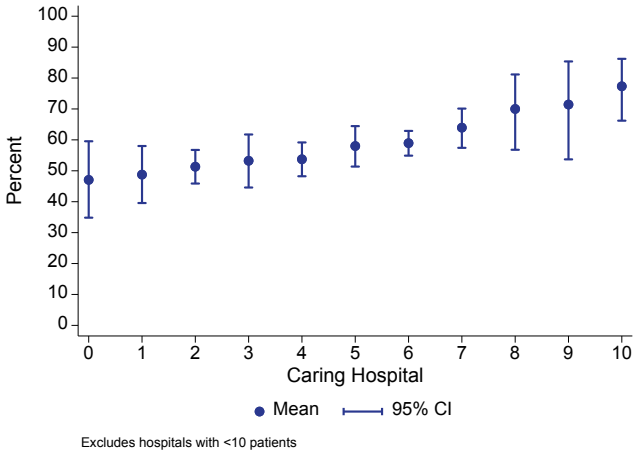
Figures 4.44 and 4.45 show the proportions of patients with serum calcium between 2.1-2.4mmol/L and phosphate between 0.8-1.6mmol/L respectively at the time of the annual survey. Note that the calcium is not corrected for albumin.

Figure 4.44.1
% Haemodialysis Patients with Calcium 2.1-2.4 mmol/L - Australia 31 December 2022



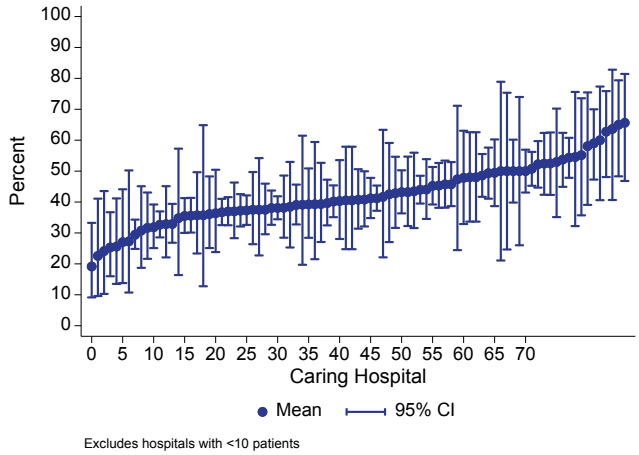
Excludes hospitals with <10 patients

Figure 4.44.2
% Haemodialysis Patients with Calcium 2.1-2.4 mmol/L - New Zealand 31 December 2022



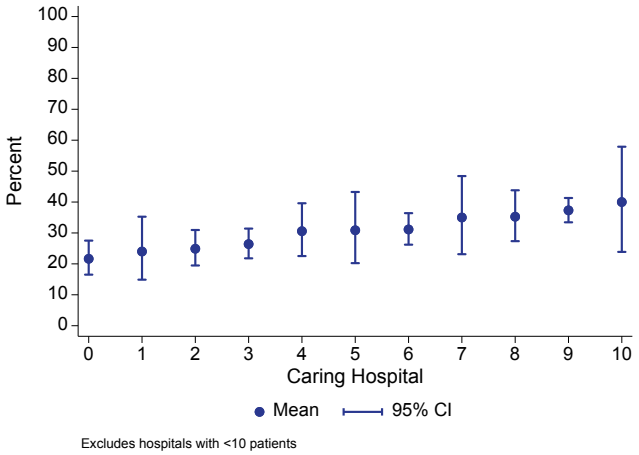
Excludes hospitals with <10 patients

Figure 4.45.1
% Haemodialysis Patients with Phosphate 0.8-1.6 mmol/L - Australia 31 December 2022



Excludes hospitals with <10 patients

Figure 4.45.2
% Haemodialysis Patients with Phosphate 0.8-1.6 mmol/L - New Zealand 31 December 2022



Excludes hospitals with <10 patients

BACK TO CONTENTS

UREA REDUCTION RATIO

Figure 4.46 shows the distribution of urea reduction ratio (URR) by country over 2020-2022.
Figure 4.47 presents the 2022 data stratified by vascular access type.

Figure 4.46.1
Urea Reduction Ratio (%) - HD Three Sessions Per Week - Australia

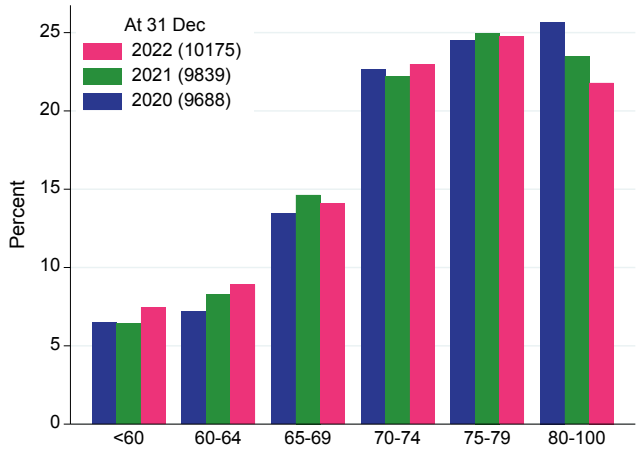


Figure 4.46.2
Urea Reduction Ratio (%) - HD Three Sessions Per Week - New Zealand

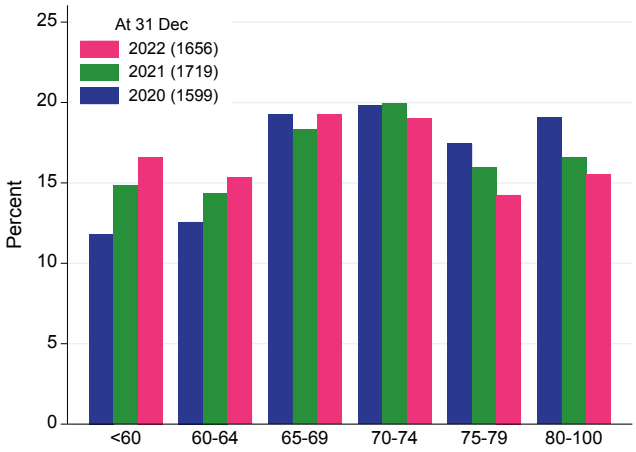


Figure 4.47.1
Urea Reduction Ratio (%) By Type of Access - HD Three Sessions Per Week - Australia 2022

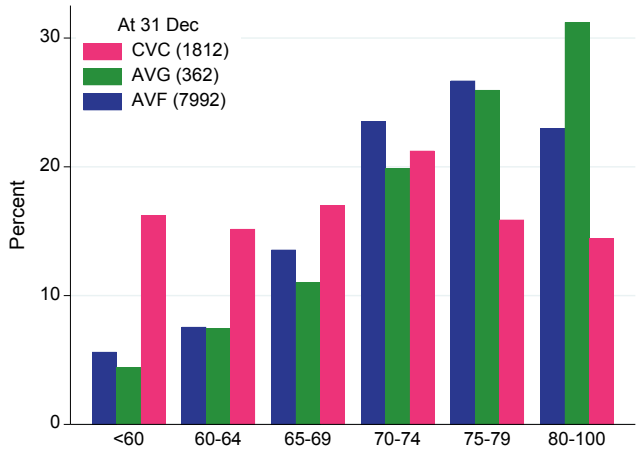
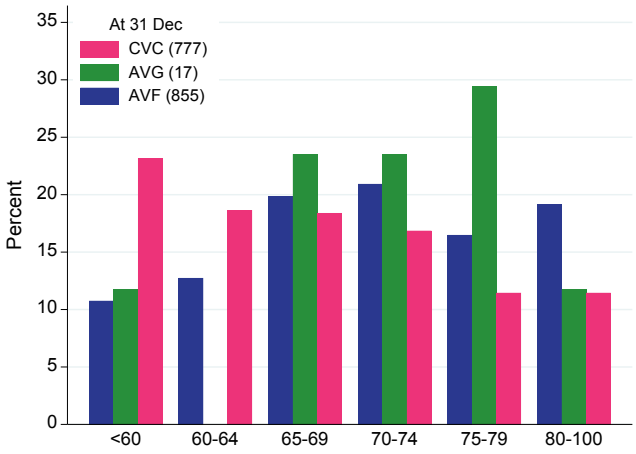


Figure 4.47.2
Urea Reduction Ratio (%) By Type of Access - HD Three Sessions Per Week - New Zealand 2022



BACK TO CONTENTS

Table 4.19 presents URR by dialysis session duration. In general, as expected, the proportion of patients with a URR >70% typically increases with longer session duration.

Table 4.19
Urea Reduction Ratio - Prevalent Patients Three Sessions per Week - December 2022

Country	Hours per Session	Urea Reduction Ratio %		
		≤70	>70	Total
Australia	<4 hours	169 (38.6%)	269 (61.4%)	438
	4 hours	1557 (34.5%)	2953 (65.5%)	4510
	>4-5 hours	1600 (32.4%)	3331 (67.6%)	4931
	>5 hours	109 (37.1%)	185 (62.9%)	294
	Total	**3435 (33.8%)**	**6738 (66.2%)**	**10173**
New Zealand	<4 hours	19 (55.9%)	15 (44.1%)	34
	4 hours	346 (59.1%)	239 (40.9%)	585
	>4-5 hours	453 (49.3%)	465 (50.7%)	918
	>5 hours	51 (42.9%)	68 (57.1%)	119
	Total	**869 (52.5%)**	**787 (47.5%)**	**1656**

Figure 4.48 shows the distribution of median URR by treating hospital for patients dialysing three times per week. In Australia the median ranged from 64-87%, and in New Zealand it ranged from 65-75%.

Figure 4.48.1
Median URR in Haemodialysis Patients - Three Sessions Per Week Australia 31 December 2022

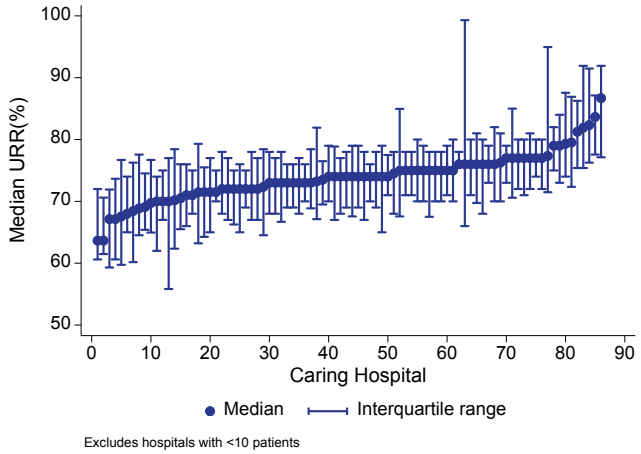


Figure 4.48.2
Median URR in Haemodialysis Patients - Three Sessions Per Week New Zealand 31 December 2022

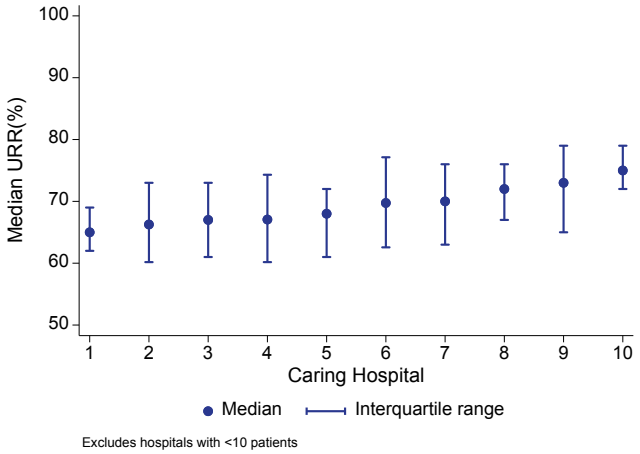


Figure 4.49 shows the proportion of patients with a URR >70%. In Australia this proportion ranged from 27-100%, and in New Zealand from 17-80%.

Figure 4.49.1
% Haemodialysis Patients with URR>70% - Three Sessions Per Week Australia 31 December 2022

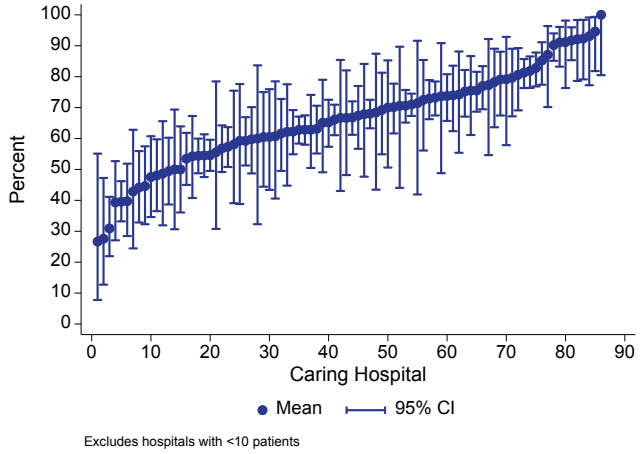
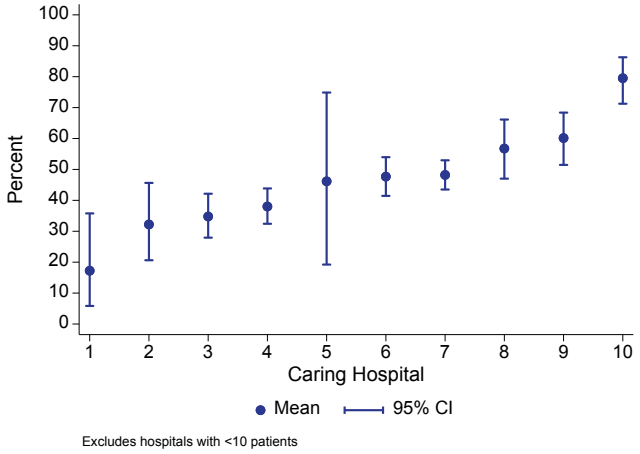


Figure 4.49.2
% Haemodialysis Patients with URR>70% - Three Sessions Per Week New Zealand 31 December 2022



BACK TO CONTENTS

CHAPTER 4

Haemodialysis