

Chapter 3

Death and Survival on Dialysis

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Table 3.1.1: Deaths on dialysis 2002-2011

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Number of dialysis patients at risk	8473	9756	11118	12584	14196	16051	18183	20375	22474	24571
Dialysis deaths	961	1214	1320	1516	1820	1986	2190	2589	2831	2802
Dialysis death rate %	11	12	12	12	13	12	12	13	13	11
Number of HD patients at risk	7620	8760	10023	11436	12951	14618	16535	18563	20546	22496
HD deaths	832	1017	1164	1334	1643	1756	1913	2268	2498	2479
HD death rate %	11	12	12	12	13	12	12	12	12	11
Number of PD patients at risk	853	996	1095	1149	1245	1433	1649	1812	1928	2076
PD deaths	129	197	156	182	177	230	277	321	333	323
PD death rate %	15	20	14	16	14	16	17	18	17	16

Figure 3.1.1: Death rates on dialysis 2002-2011

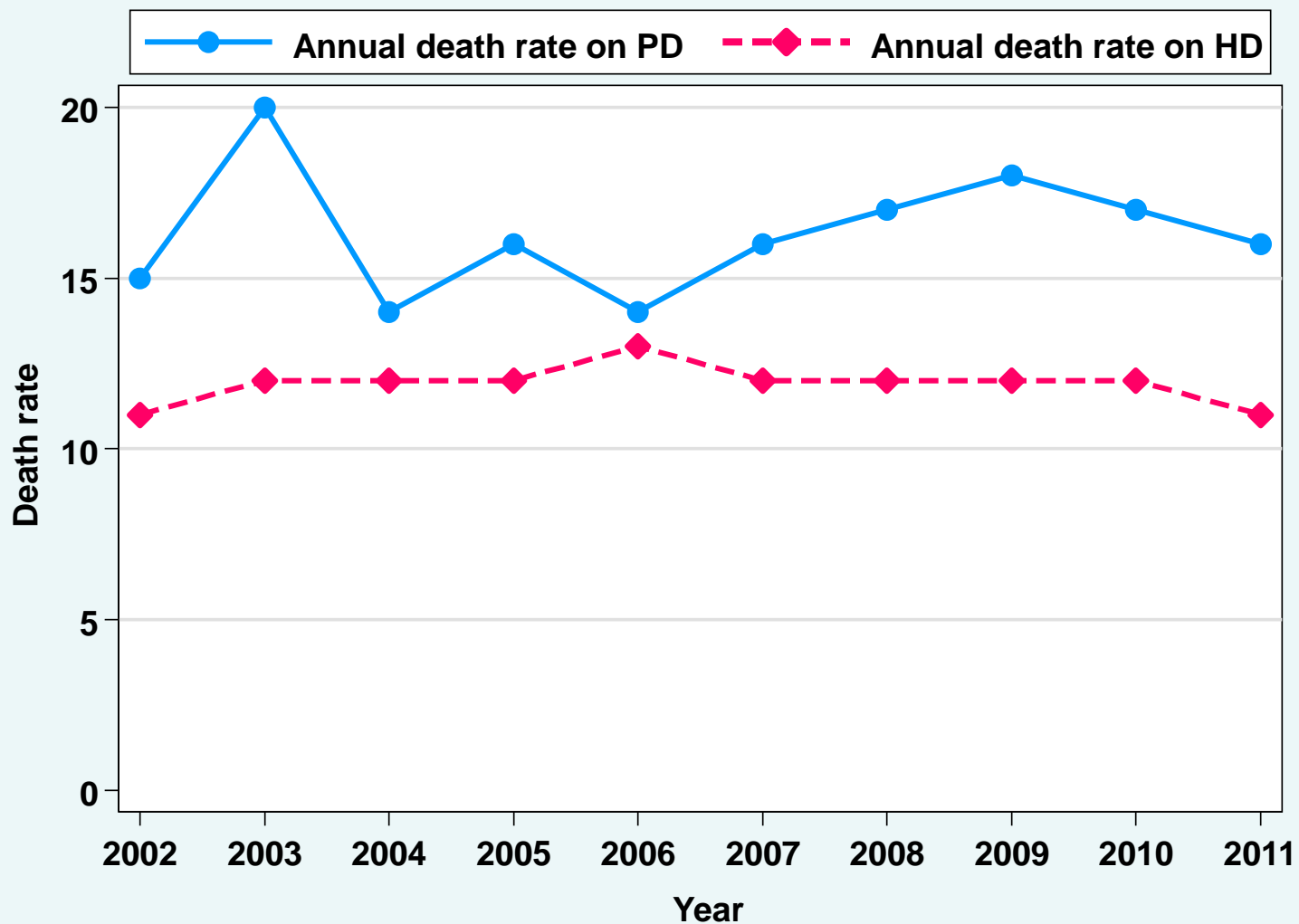


Table 3.1.2: Causes of death on dialysis 2002-2011

Year Causes of Death	2002		2003		2004		2005		2006	
	n	%	n	%	n	%	n	%	n	%
Cardiovascular	315	33	342	28	344	26	377	25	517	28
Died at home	212	22	290	24	307	23	320	21	355	20
Sepsis	149	16	197	16	169	13	184	12	236	13
PD peritonitis	16	2	14	1	13	1	23	2	22	1
GIT bleed	24	2	29	2	24	2	29	2	26	1
Cancer	18	2	29	2	20	2	31	2	41	2
Liver disease	17	2	25	2	29	2	26	2	35	2
Withdrawal	18	2	26	2	9	1	12	1	23	1
Others	104	11	161	13	323	24	407	27	392	22
Unknown	88	9	101	8	82	6	107	7	173	10
Total	961	100	1214	100	1320	100	1516	100	1820	100

Year Causes of Death	2007		2008		2009		2010		2011	
	n	%	n	%	n	%	n	%	n	%
Cardiovascular	518	26	685	31	880	34	965	34	1059	38
Died at home	343	17	423	19	493	19	540	19	521	19
Sepsis	224	11	348	16	571	22	662	23	605	22
PD peritonitis	16	1	25	1	31	1	35	1	23	1
GIT bleed	34	2	45	2	47	2	54	2	48	2
Cancer	34	2	56	3	57	2	75	3	73	3
Liver disease	37	2	44	2	27	1	31	1	32	1
Withdrawal	27	1	24	1	35	1	36	1	39	1
Others	552	28	365	17	193	7	110	4	105	4
Unknown	201	10	175	8	255	10	323	11	306	11
Total	1986	100	2190	100	2589	100	2831	100	2811	100

**Table 3.2.1(a): Patient survival by dialysis modality analysis
(censored for change of modality)**

Dialysis Modality Interval (month)	PD			HD			All		
	n	% survival	SE	n	% survival	SE	n	% survival	SE
0	6334	100		44761	100		51095	100	
6	5425	93	0	39345	94	0	44770	94	0
12	4514	87	0	34364	89	0	38878	88	0
24	3091	74	1	26630	79	0	29721	78	0
36	2044	62	1	20548	71	0	22592	70	0
48	1346	51	1	15746	63	0	17092	62	0
60	911	44	1	12024	56	0	12935	55	0
72	608	37	1	9165	50	0	9772	49	0
84	395	31	1	6967	44	0	7361	43	0
96	249	26	1	5324	40	0	5570	38	0
108	152	22	1	4045	36	0	4196	34	0
120	92	19	1	3080	32	0	3172	31	0

Figure 3.2.1(a): Patient survival by dialysis modality analysis (censored for change of modality)

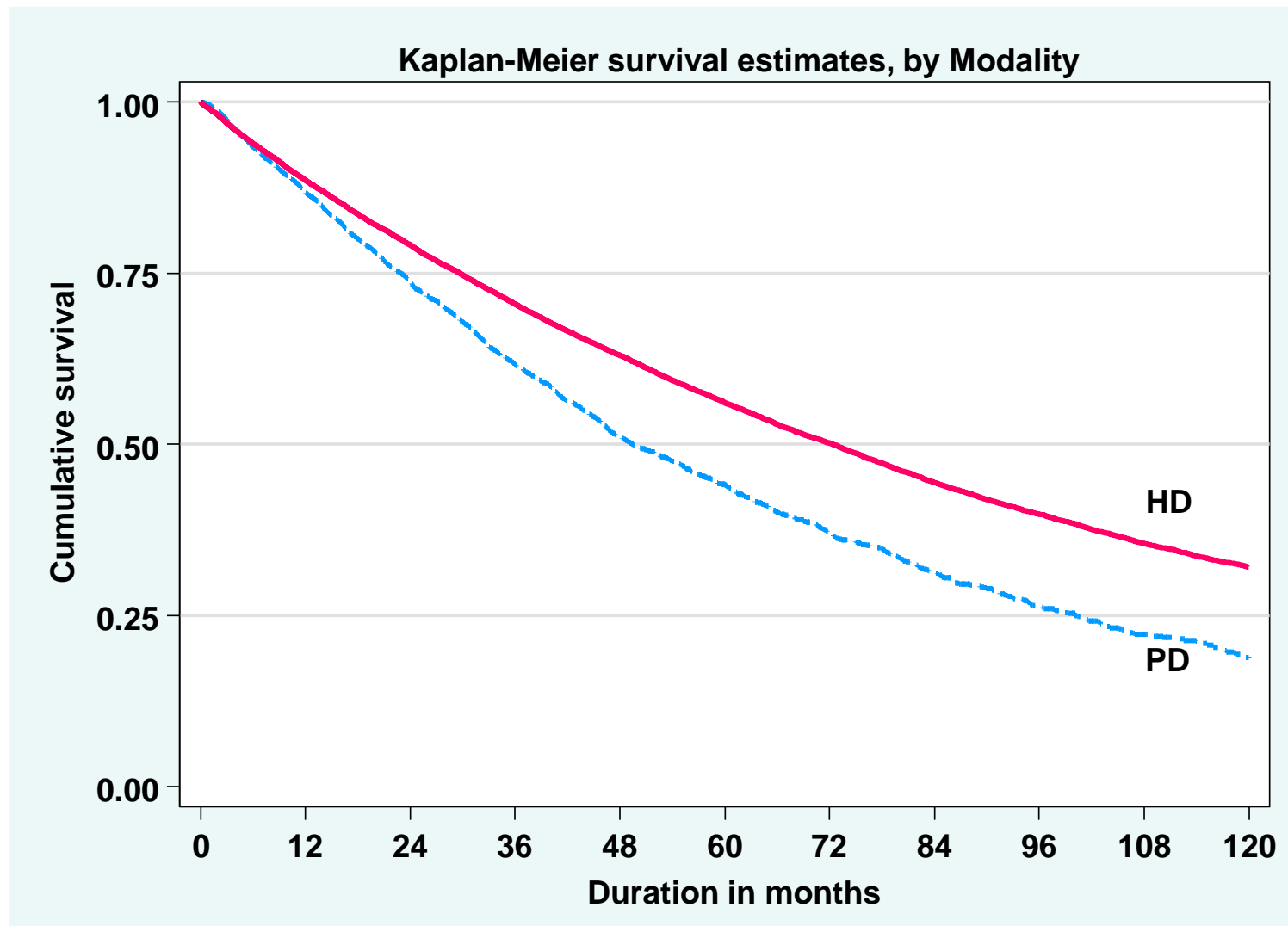


Table 3.2.1(b): Patient survival by dialysis modality analysis (not censored for change of modality)

Dialysis modality Interval (month)	PD			HD			All		
	n	% survival	SE	n	% survival	SE	n	% survival	SE
0	6334	100		44761	100		51095	100	
6	5620	93	0	39912	94	0	45532	94	0
12	4946	87	0	35297	89	0	40239	88	0
24	3786	74	1	27967	79	0	31737	79	0
36	2848	63	1	21965	71	0	24813	70	0
48	2146	54	1	17156	63	0	19302	62	0
60	1671	47	1	13386	57	0	15056	56	0
72	1343	42	1	10453	51	0	11795	50	0
84	1082	37	1	8155	46	0	9236	45	0
96	871	34	1	6402	41	0	7271	40	0
108	680	30	1	5031	37	0	5710	36	0
120	519	28	1	3956	34	0	4475	33	0

Figure 3.2.1(b): Patient survival by dialysis modality analysis (not censored for change of modality)

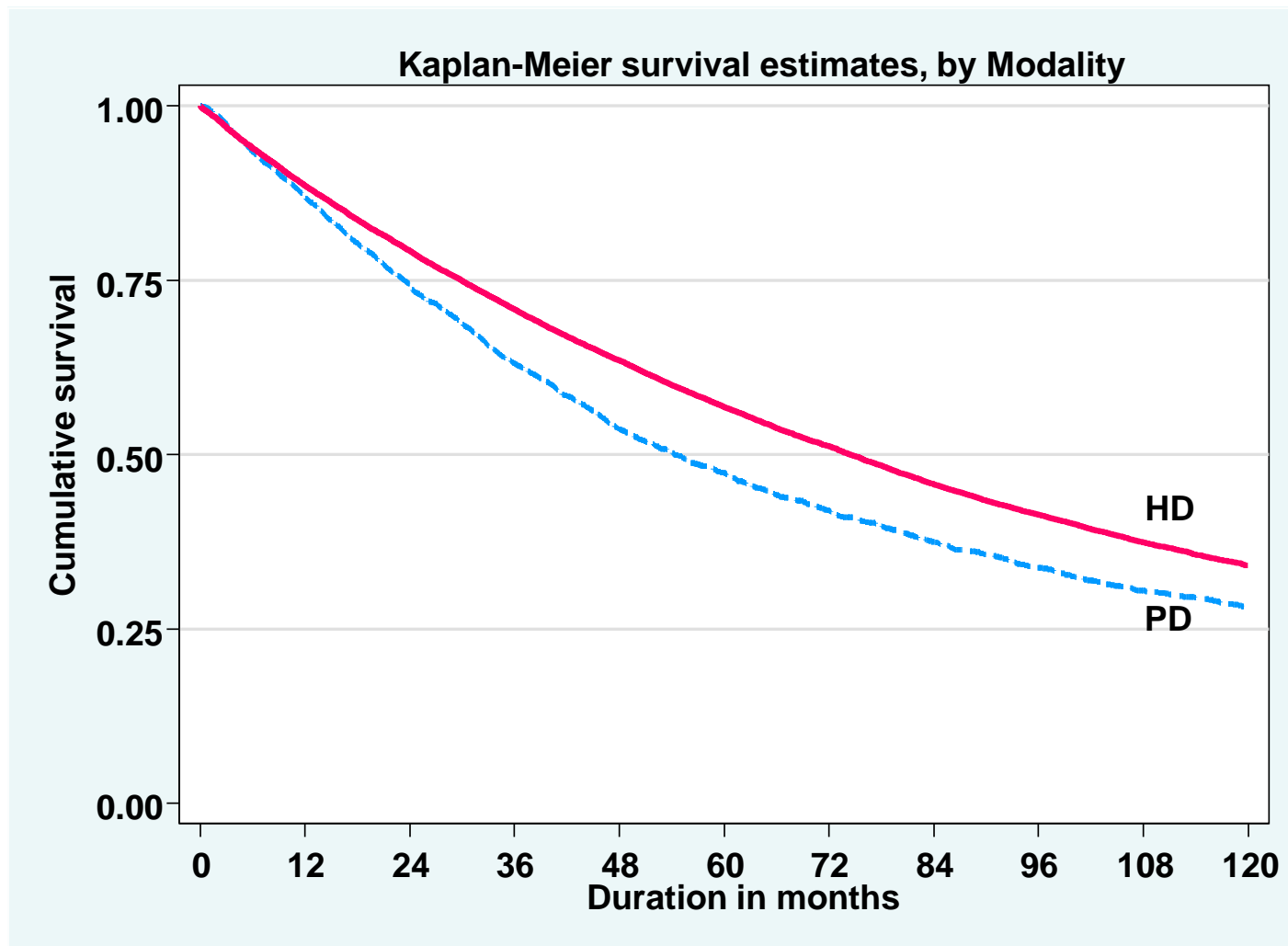


Table 3.2.2: Unadjusted patient survival by year of entry, 2002-2011

Year Interval (month)	2002			2003			2004			2005		
	n	% survival	SE	n	% survival	SE	n	% survival	SE	n	% survival	SE
0	2526	100		2758	100		3084	100		3320	100	
6	2362	95	0	2542	94	0	2872	94	0	3051	93	0
12	2181	89	1	2337	88	1	2640	88	1	2800	87	1
24	1843	79	1	2009	78	1	2284	79	1	2408	77	1
36	1597	70	1	1714	68	1	1952	69	1	2086	68	1
48	1384	61	1	1487	60	1	1691	60	1	1793	59	1
60	1196	54	1	1290	53	1	1462	53	1	1551	52	1
72	1038	48	1	1118	47	1	1269	47	1	1366	47	1
84	884	42	1	938	40	1	1095	41	1	16	-	-
96	780	38	1	830	36	1	2	-	-	-	-	-
108	670	33	1	8	-	-	-	-	-	-	-	-
120	2	-	-	-	-	-	-	-	-	-	-	-

Year Interval (month)	2006			2007			2008			2009		
	n	% survival	SE	n	% survival	SE	n	% survival	SE	n	% survival	SE
0	3880	100		4276	100		4847	100		5170	100	
6	3565	93	0	3973	94	0	4493	94	0	4794	94	0
12	3284	87	1	3670	88	0	4147	88	0	4423	89	0
24	2836	77	1	3169	78	1	3521	77	1	3826	79	1
36	2462	68	1	2736	69	1	3065	68	1	90	-	-
48	2164	61	1	2360	61	1	100	-	-	-	-	-
60	1894	54	1	36	-	-	-	-	-	-	-	-
72	31	-	-	-	-	-	-	-	-	-	-	-

Year Interval (month)	2010			2011		
	n	% survival	SE	n	% survival	SE
0	5503	100		5571	100	
6	4993	93	0	2783	94	0
12	4619	87	0	168		
24	78	-	-	-	-	-

Figure 3.2.2: Unadjusted patient survival by year of entry, 2002-2011

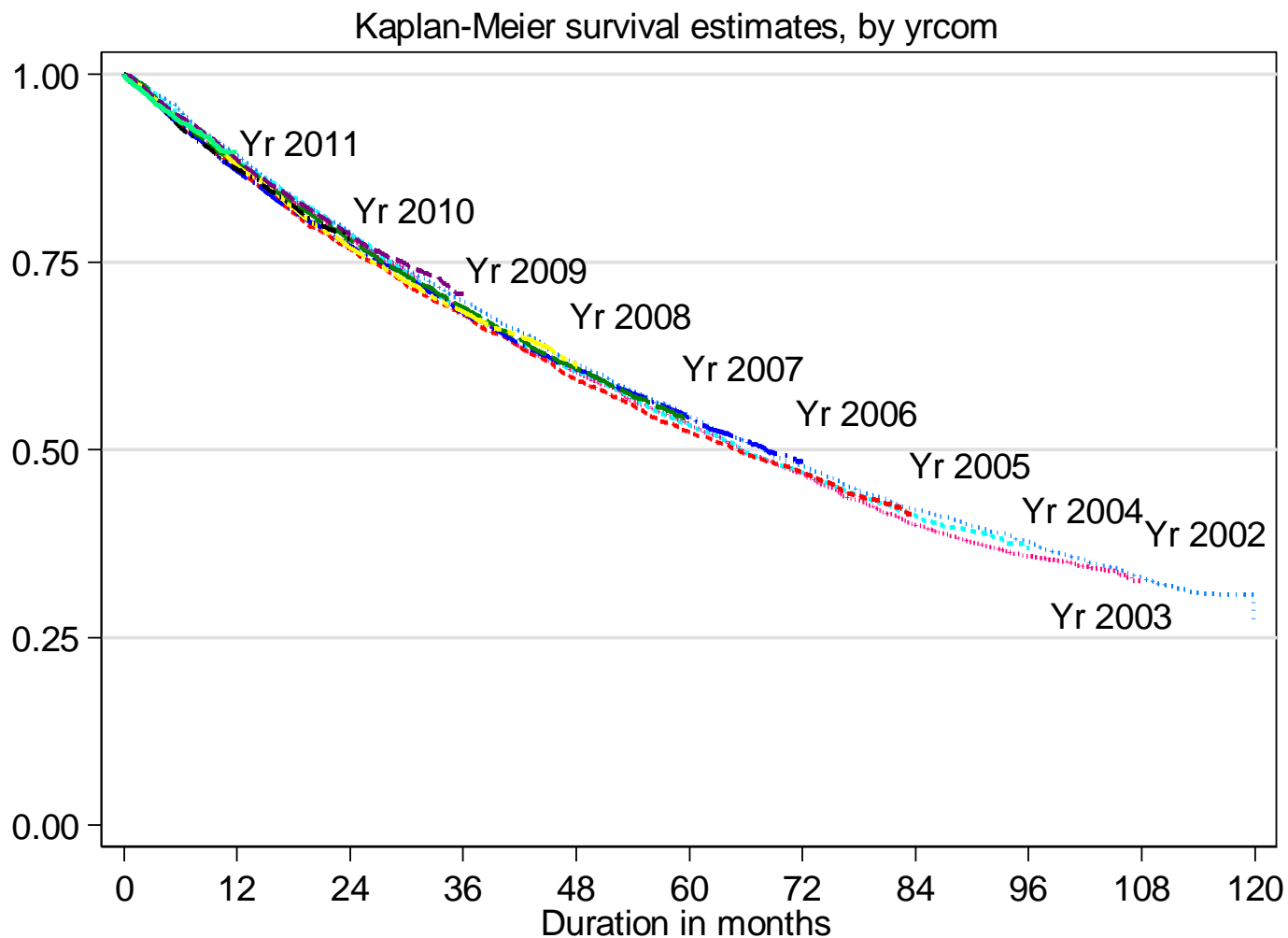


Table 3.2.3: Unadjusted patient survival by age, 2002-2011

Age group (years) Interval (month)	<=14			15-24			25-34			35-44		
	n	% survival	SE	n	% survival	SE	n	% survival	SE	n	% survival	SE
0	459	100		1481	100		2739	100		4610	100	
6	412	97	1	1337	97	0	2428	97	0	4109	96	0
12	359	95	1	1181	94	1	2117	94	0	3577	92	0
24	265	89	2	904	89	1	1624	91	1	2763	86	1
36	174	86	2	688	86	1	1271	87	1	2151	81	1
48	117	82	2	542	83	1	963	84	1	1580	76	1
60	77	76	3	400	81	1	702	80	1	1191	71	1
72	50	71	4	284	78	2	504	77	1	832	67	1
84	30	64	5	192	73	2	359	74	1	539	61	1
96	17	61	6	112	73	2	226	72	1	315	58	1
108	10	61	6	49	69	3	103	67	2	150	55	1
120	1			1			1			1		

Age group (years) Interval (month)	45-54			55-64			>=65		
	n	% survival	SE	n	% survival	SE	n	% survival	SE
0	10038	100		11799	100		9809	100	
6	8836	95	0	10166	94	0	8133	90	0
12	7608	90	0	8591	87	0	6672	82	0
24	5670	81	0	6105	76	0	4568	67	1
36	4157	73	1	4235	66	1	2936	54	1
48	2960	66	1	2879	57	1	1841	43	1
60	2074	59	1	1868	48	1	1104	35	1
72	1323	53	1	1170	41	1	631	28	1
84	803	46	1	668	35	1	336	21	1
96	452	41	1	343	29	1	150	16	1
108	201	37	1	111	23	1	48	13	1
120	2			1			1		

Figure 3.2.3: Unadjusted patient survival by age, 2002-2011

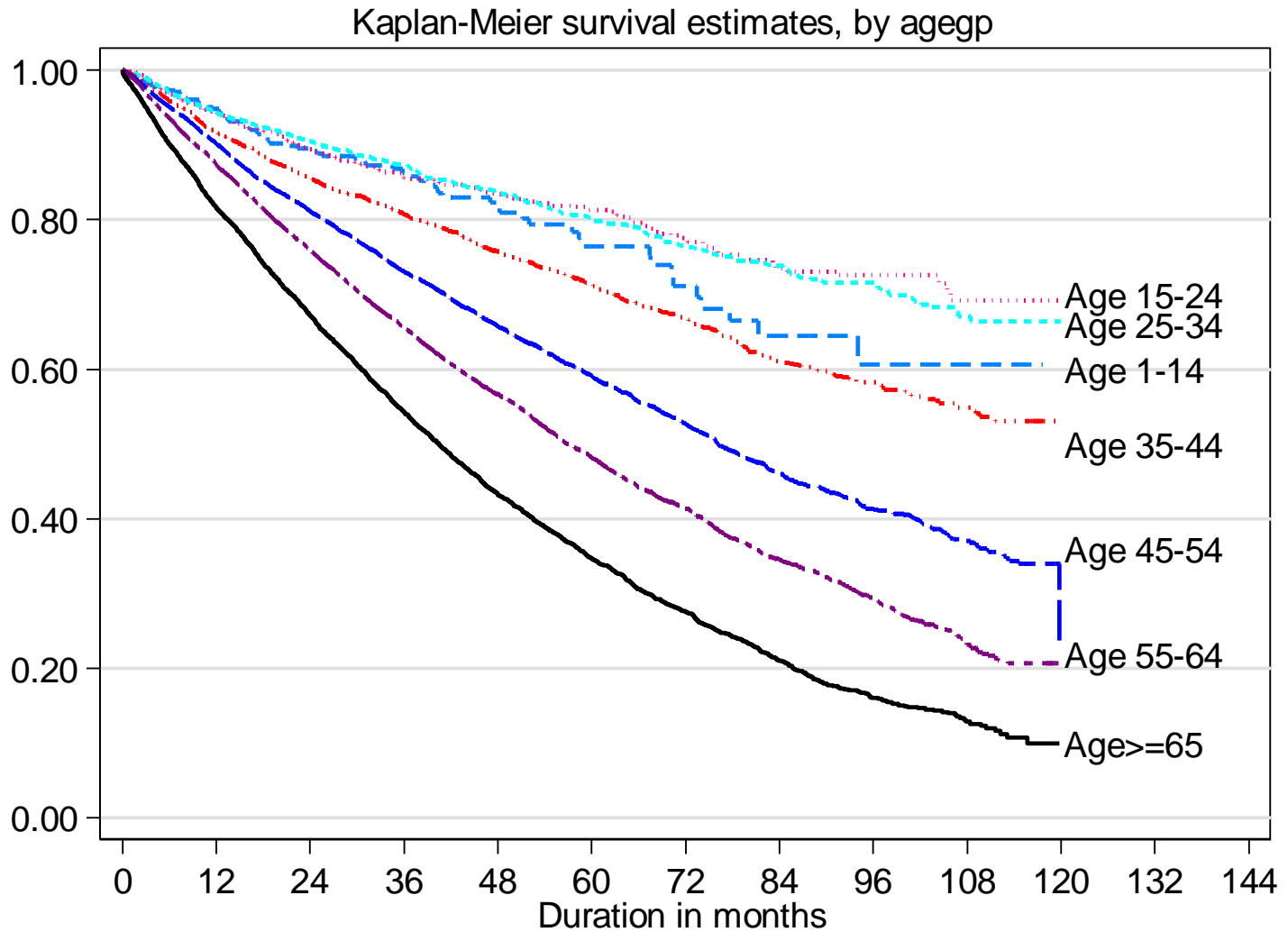


Table 3.2.4: Unadjusted patient survival by diabetes mellitus status, 2002-2011

Diabetes status Interval (month)	Non-diabetic			Diabetic		
	n	% survival	SE	n	% survival	SE
0	17785	100		23150	100	
6	15415	94	0	20005	93	0
12	13279	91	0	16822	86	0
24	10067	84	0	11823	73	0
36	7624	78	0	7987	62	0
48	5610	72	0	5264	52	0
60	4075	67	0	3315	44	0
72	2831	62	1	1958	37	0
84	1827	56	1	1089	30	1
96	1066	53	1	544	25	1
108	470	49	1	200	20	1
120	1			1		

Figure 3.2.4: Unadjusted patient survival by diabetes mellitus status, 2002-2011

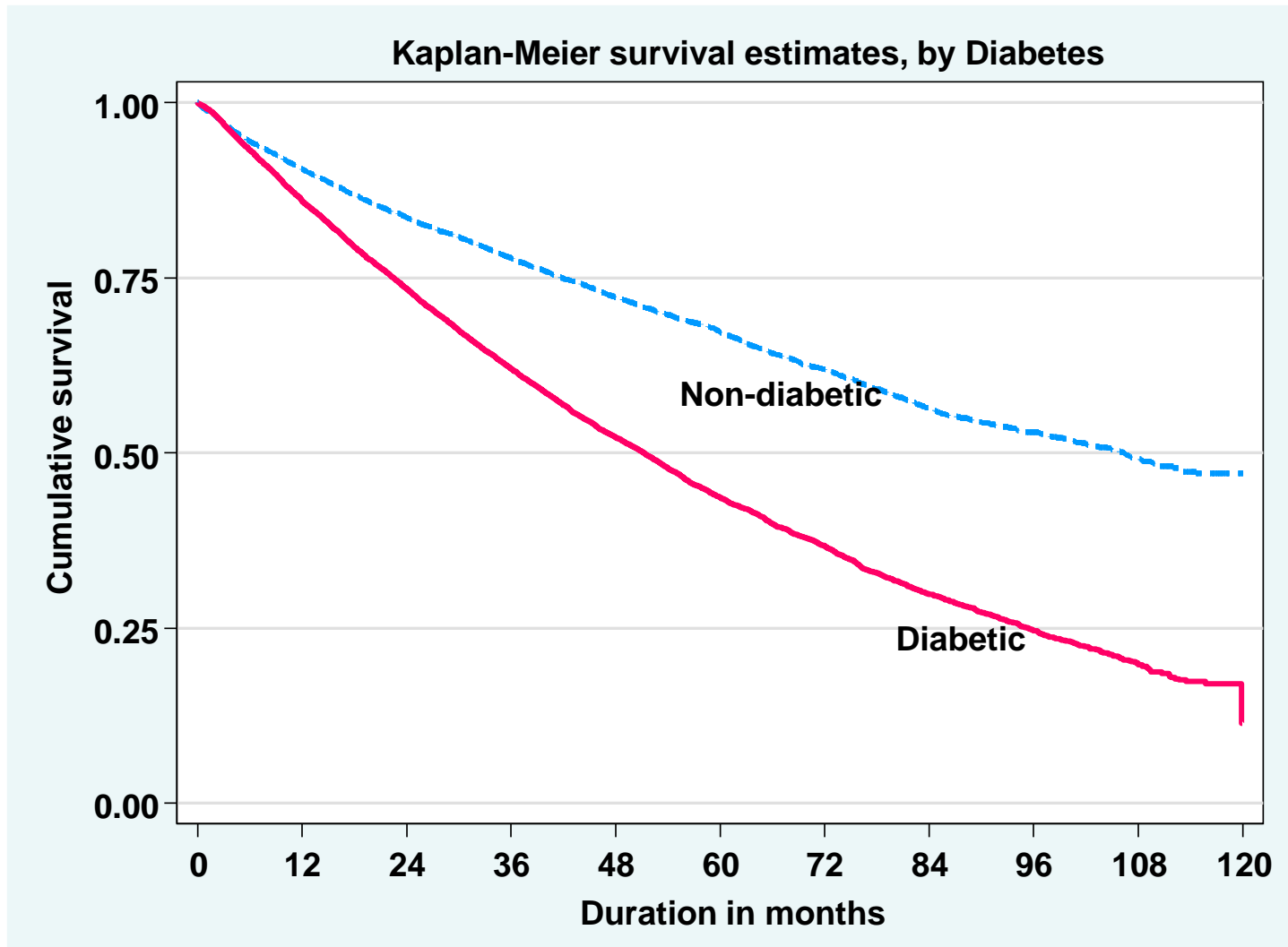
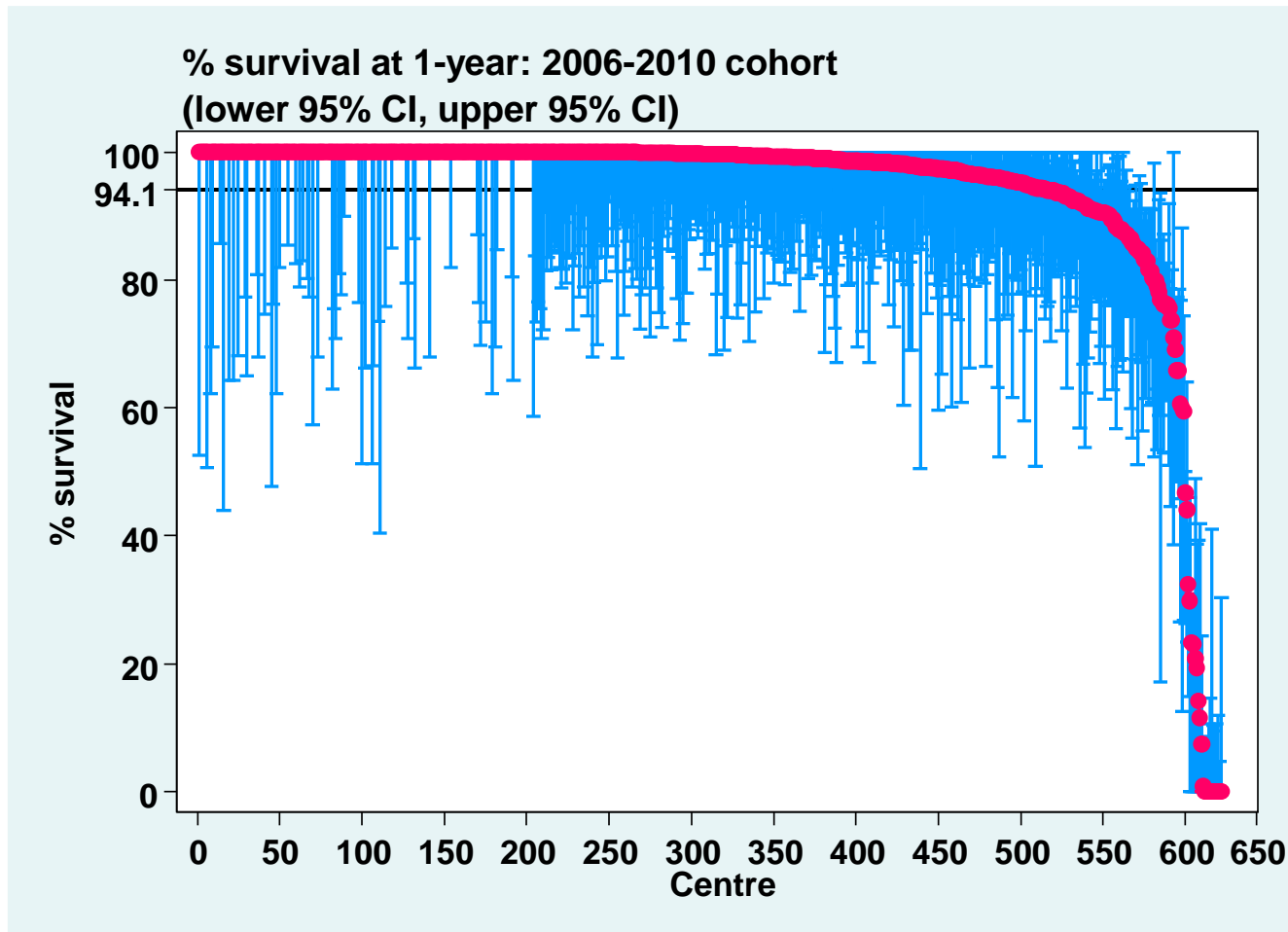
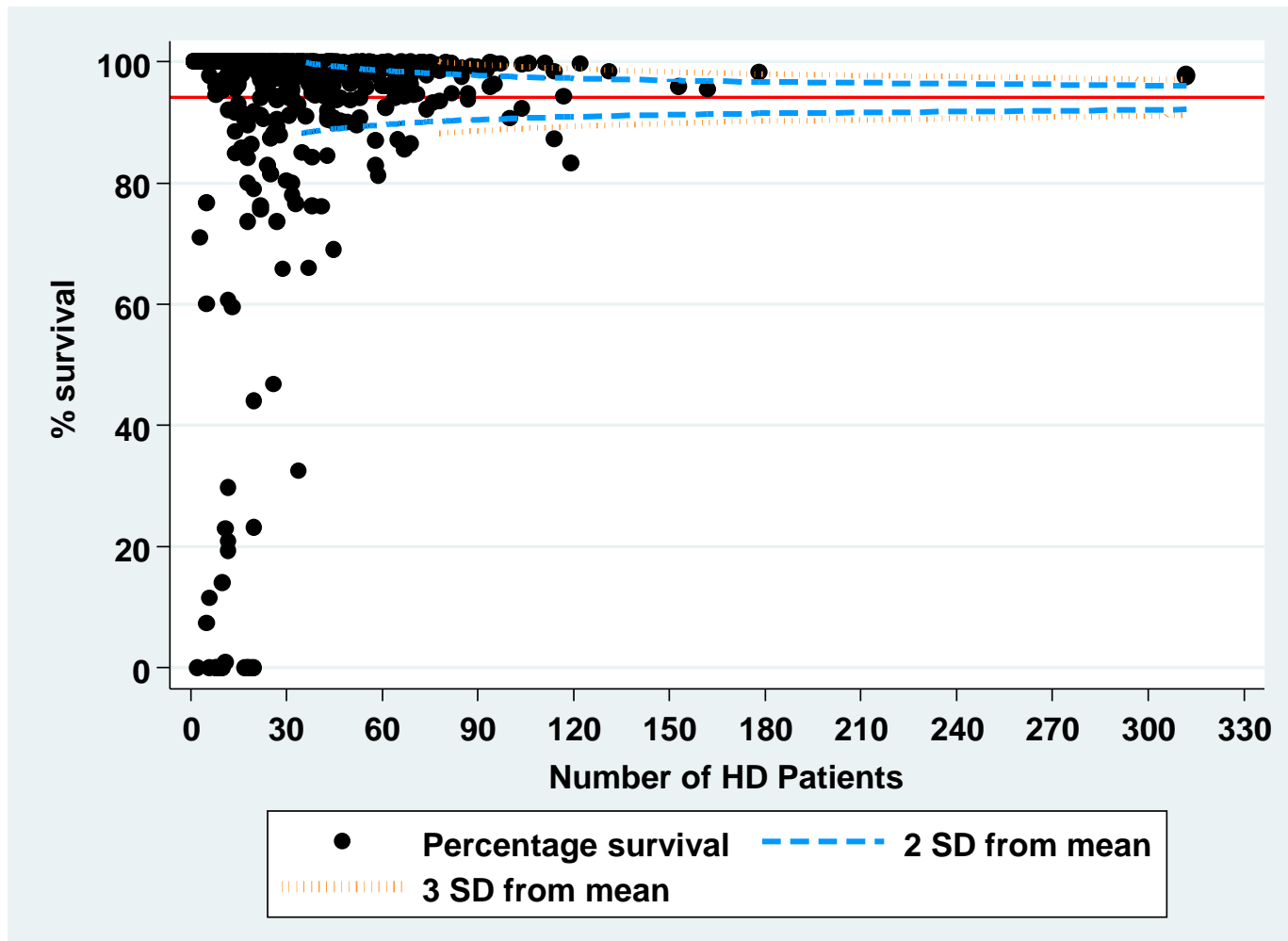


Figure 3.3.1 (a): Variation in patient survival at 1-year among HD centres adjusted for age and diabetes mellitus status, 2006-2010



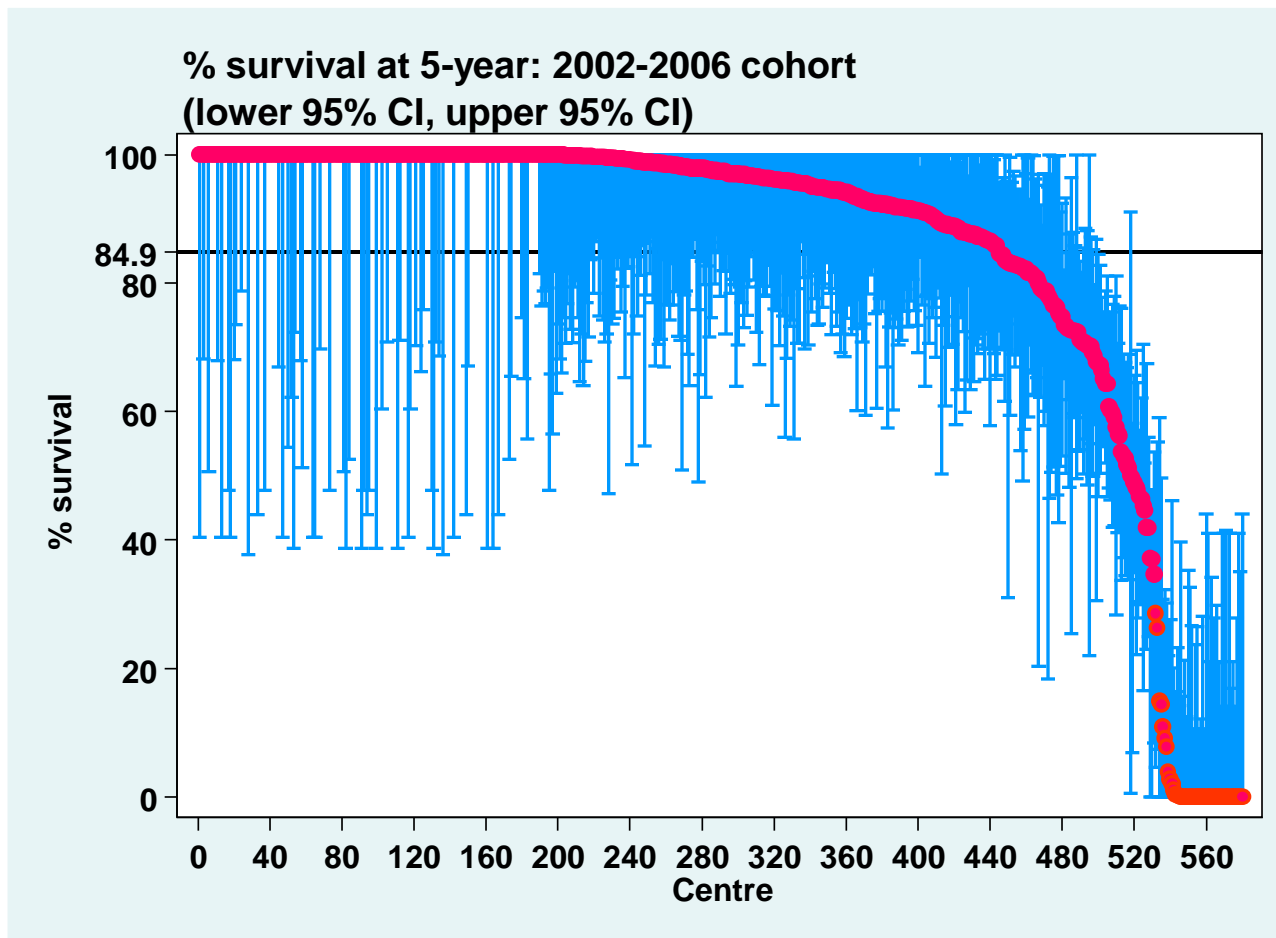
***Horizontal line represents the mean % survival among HD centres**

Figure 3.3.1 (b): Funnel plot for adjusted age at 1-year among HD centres adjusted for age and diabetes mellitus status, 2006-2010 cohort



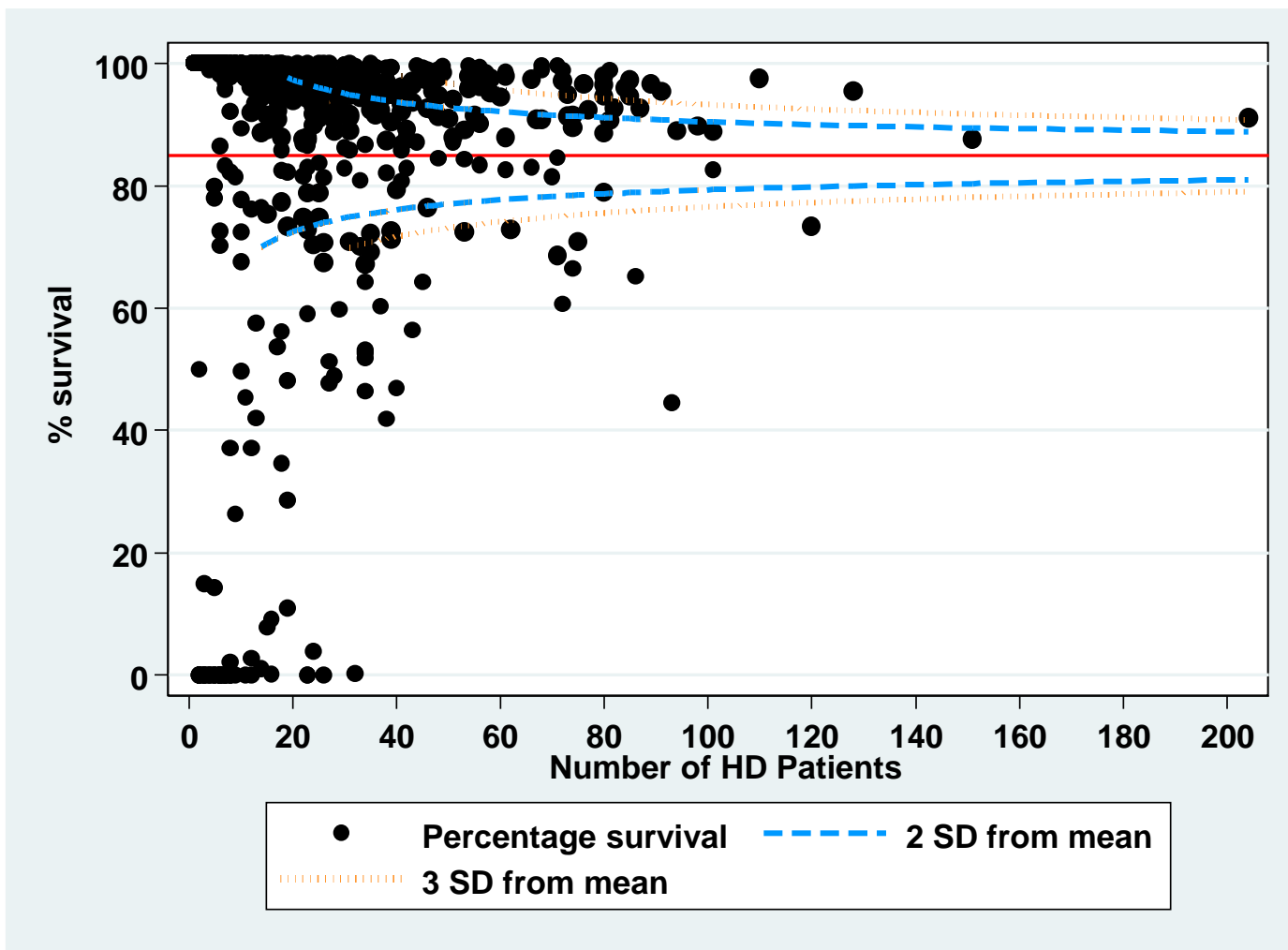
*Horizontal line represents the mean % survival among HD centres

Figure 3.3.1 (c): Variation in patient survival at 5-years among HD centres adjusted for age and diabetes mellitus status, 2002-2006



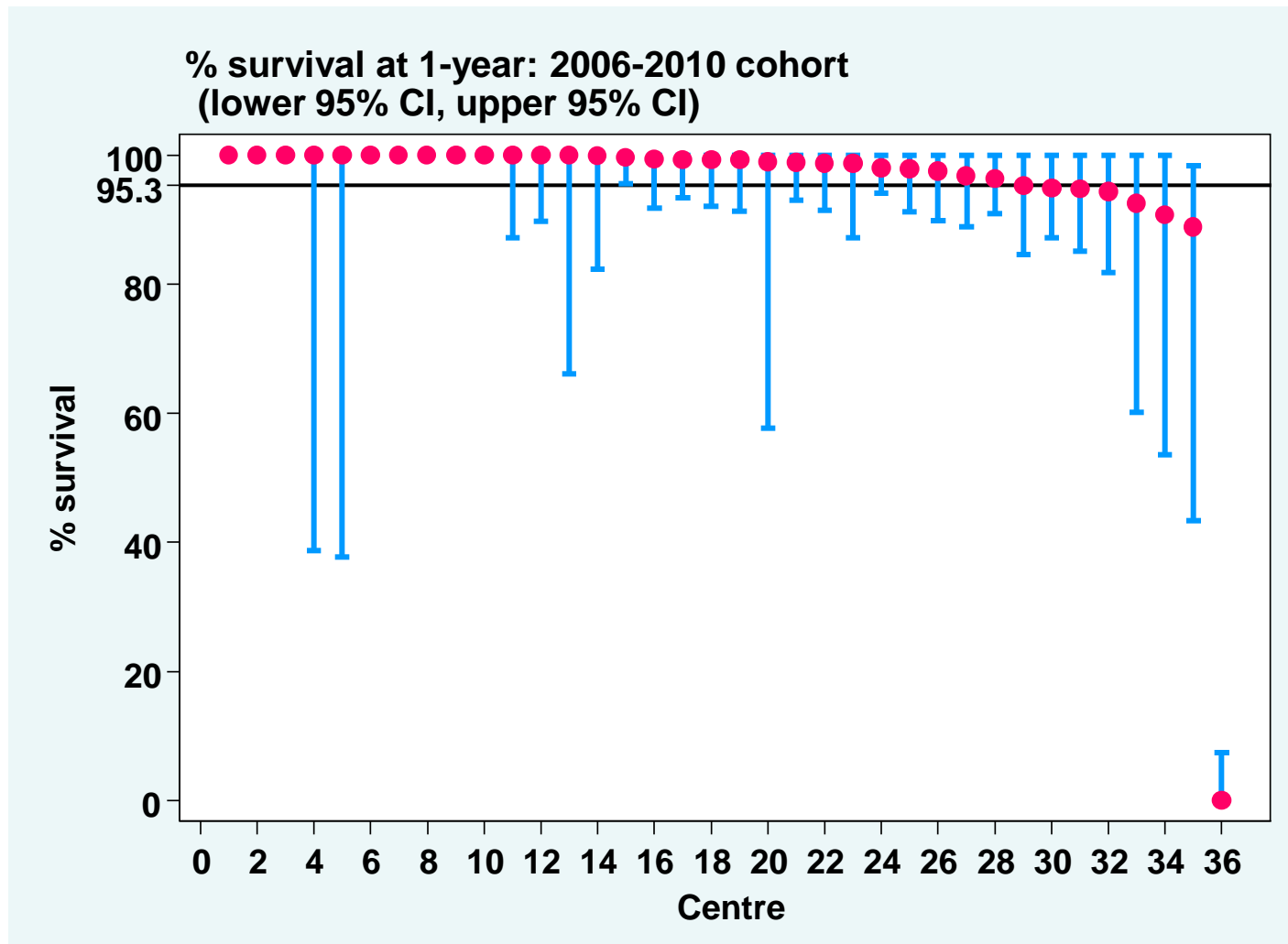
***Horizontal line represents the mean % survival among HD centres**

Figure 3.3.1 (d): Funnel plot for patient survival at 5-years among HD centres adjusted age and diabetes mellitus, 2002-2006 cohort



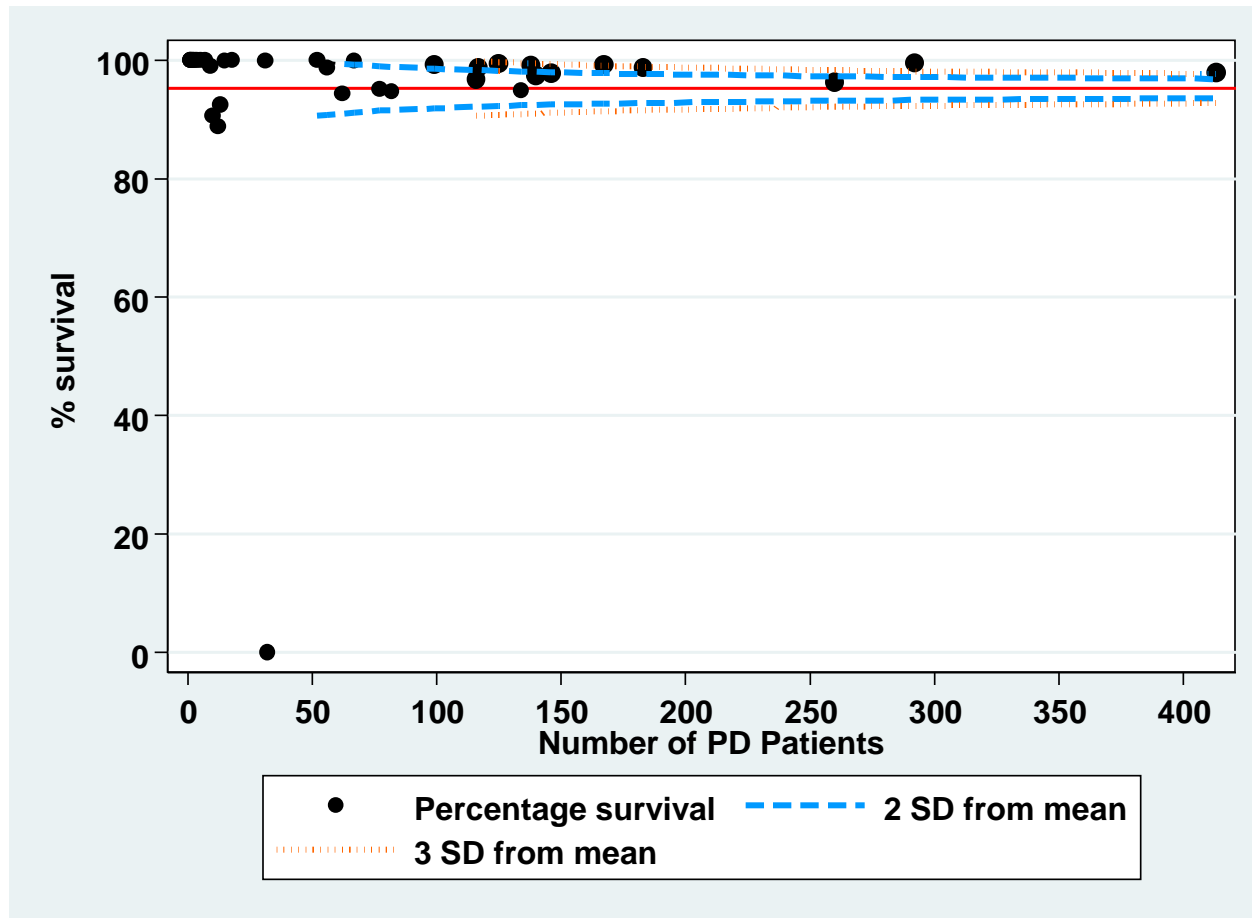
*Horizontal line represents the mean % survival among HD centres

Figure 3.3.2 (a): Variation in patient survival at 1-year among PD centres adjusted for age and diabetes mellitus , 2006-2010



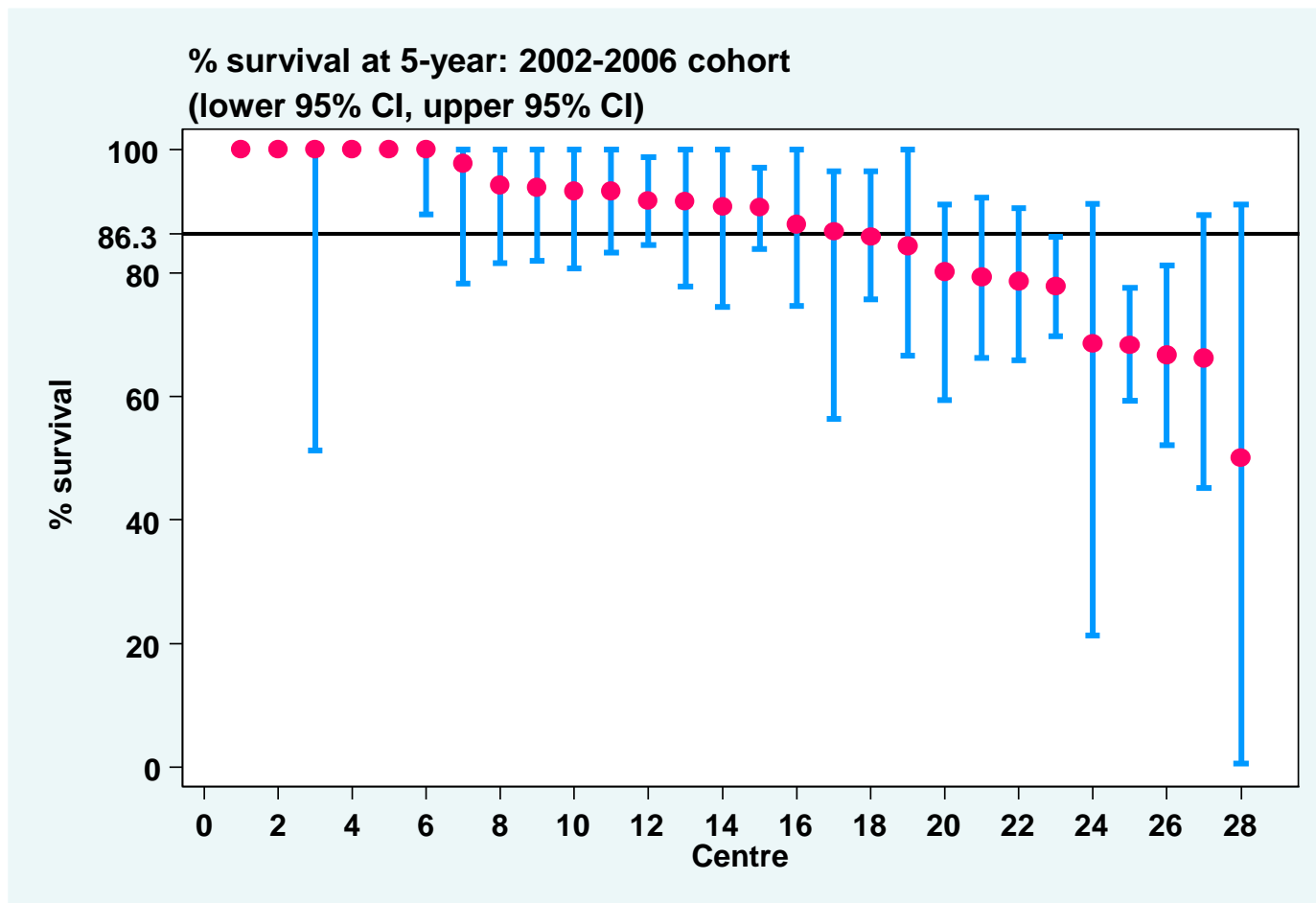
*Horizontal line represents the mean % survival among PD centres

Figure 3.3.2 (b): Funnel plot of 1-year patient survival from the 90th day of dialysis adjusted for age and diabetes mellitus among PD centres, 2006-2010 cohort



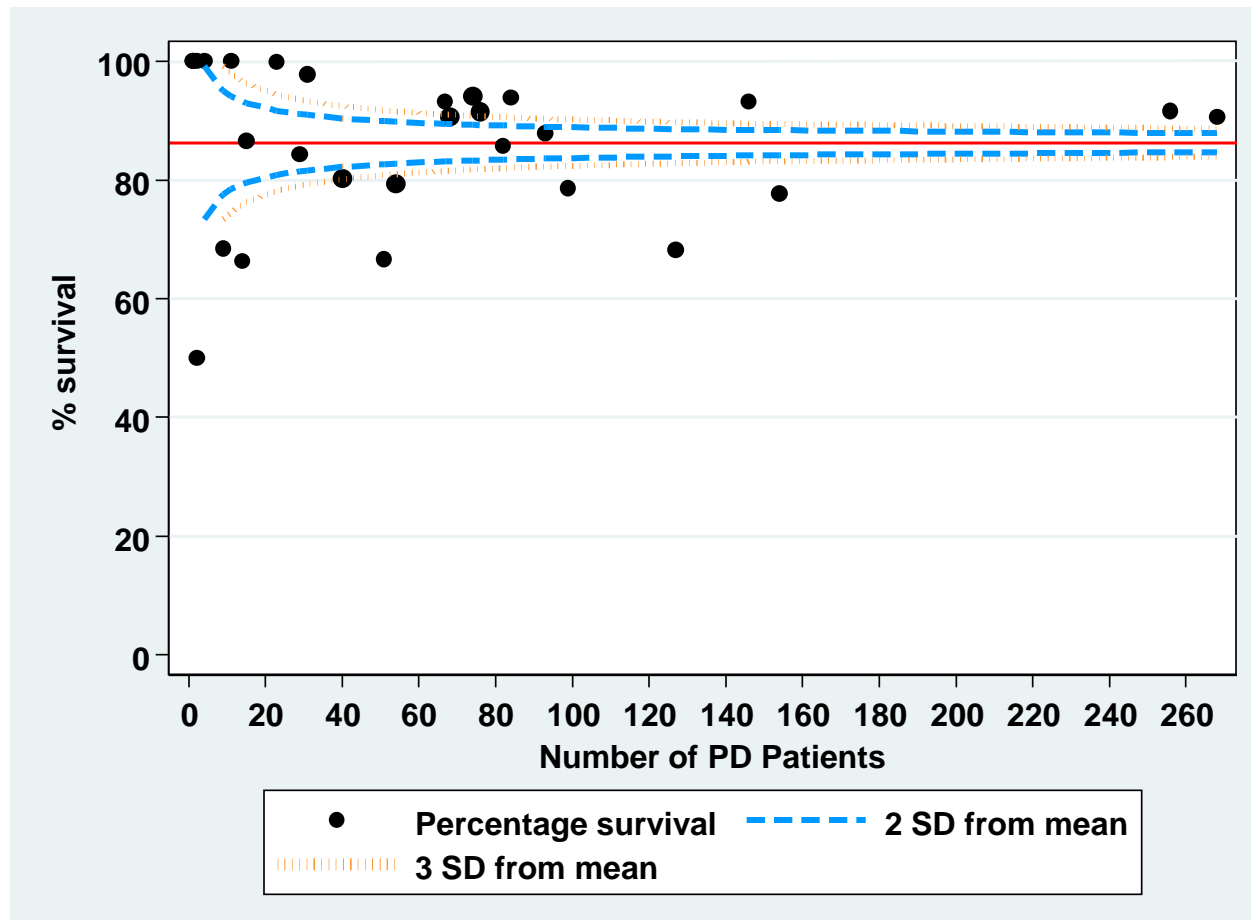
*Horizontal line represents the mean % survival among PD centres

Figure 3.3.2 (c): Variation in patient survival at 5-years among PD centres adjusted for age and diabetes mellitus, 2002-2006



*Horizontal line represents the mean % survival among PD centres

Figure 3.3.2 (d): Funnel plot of 5-years patient survival from 90 day of dialysis adjusted for age and diabetes mellitus among PD centres, 2002-2006 cohort



*Horizontal line represents the mean % survival among PD centres

Table 3.4.1: Adjusted hazard ratio for mortality of dialysis patients uncensored for change of modality (2002-2011)

Factors	N	Hazard Ratio	95% CI	P-value
Age (years):				
• Age 1-14 ^(ref)	395	1.00		
• Age 15-24	1258	1.26	(0.96; 1.66)	0.100
• Age 25-34	2447	1.32	(1.01; 1.71)	0.041
• Age 35-44	4252	1.93	(1.5; 2.49)	<0.001
• Age 45-54	9482	2.70	(2.1; 3.47)	<0.001
• Age 55-64	11262	3.52	(2.74; 4.53)	<0.001
• Age >=65	9436	4.86	(3.78; 6.25)	<0.001
Gender:				
• Male ^(ref)	21437	1.00		
• Female	17095	0.80	(0.77; 0.83)	<0.001
Primary diagnosis:				
• Unknown primary	10514	1.20	(1.08; 1.35)	0.001
• Diabetes mellitus	21542	1.69	(1.51; 1.88)	<0.001
• GN/SLE ^(ref)	1751	1.00		
• Polycystic kidney	359	0.94	(0.75; 1.19)	0.625
• Obstructive nephropathy	878	1.16	(1; 1.36)	0.056
• Others	3488	1.11	(0.98; 1.25)	0.097
Year start dialysis:				
• 2001-2002 ^(ref)	2352	1.00		
• 2003-2004	5499	1.00	(0.94; 1.07)	0.929
• 2005-2006	6809	1.03	(0.97; 1.1)	0.297
• 2007-2008	8654	1.00	(0.94; 1.07)	0.964
• 2009-2010	10017	0.92	(0.86; 0.99)	0.025
Modality:				
• HD ^(ref)	34094	1.00		
• PD	4438	1.03	(0.97; 1.1)	0.380
BMI:				
• BMI<18.5	2709	1.26	(1.17; 1.35)	<0.001
• BMI 18.5-25	22848	1.11	(1.07; 1.15)	<0.001
• >=25 ^(ref)	12975	1.00		
Serum albumin (g/L):				
• <30	2578	4.18	(3.87; 4.52)	<0.001
• 30-<35	5489	2.31	(2.17; 2.45)	<0.001
• 35-<40	18835	1.85	(1.77; 1.93)	<0.001
• >=40 ^(ref)	11630	1.00		
Serum cholesterol (mmol/L):				
• <3.5	3522	0.91	(0.83; 0.99)	0.037
• 3.5-<5.2	27213	0.97	(0.91; 1.05)	0.501
• 5.2-<6.2	5418	0.86	(0.79; 0.94)	0.001
• >=6.2 ^(ref)	2379	1.00		

Factors	N	Hazard Ratio	95% CI	P-value
Diastolic BP (mmHg):				
• <70	6192	0.89	(0.84; 0.94)	<0.001
• 70-<80	15554	1.11	(1.06; 1.15)	<0.001
• 80-<90 ^(ref)	12387	1.00		
• 90-<100	3524	1.04	(0.97; 1.12)	0.239
• >=100	875	1.45	(1.27; 1.65)	<0.001
Hemoglobin:				
• <10	19182	1.87	(1.8; 1.94)	<0.001
• 10-<12 ^(ref)	17046	1.00		
• >=12	2304	0.78	(0.72; 0.85)	<0.001
Serum calcium (mmol/L):				
• <2.1	7974	1.03	(0.98; 1.07)	0.249
• 2.1-<=2.37 ^(ref)	24689	1.00		
• >2.37	5869	0.83	(0.79; 0.87)	<0.001
Calcium Phosphate product (mmol²/L²):				
• <3.5	14675	0.83	(0.79; 0.87)	<0.001
• 3.5-<4.5 ^(ref)	16010	1.00		
• 4.5-<5.5	5613	0.79	(0.74; 0.85)	<0.001
• >=5.5	2234	1.02	(0.9; 1.16)	0.787
Serum Phosphate (mmol/L):				
• <0.8	257	1.82	(1.54; 2.15)	<0.001
• 0.8-<1.3 ^(ref)	5091	1.00		
• 1.3-<1.8	18458	0.95	(0.9; 1)	0.047
• 1.8-<2.2	10095	0.82	(0.76; 0.88)	<0.001
• >=2.2	4631	0.86	(0.76; 0.97)	0.014
HBsAg:				
• Negative ^(ref)	37246	1.00		
• Positive	1286	1.09	(1; 1.19)	0.064
Anti-HCV:				
• Negative ^(ref)	37683	1.00		
• Positive	849	1.06	(0.95; 1.17)	0.294
Cardiovascular disease (CVD)				
• No CVD ^(ref)	32590	1.00		
• CVD	5942	1.31	(1.26; 1.37)	<0.001

Figure 3.4.1 (a): Adjusted hazard ratio for mortality of dialysis patients uncensored for change of modality by diastolic blood pressure (2002-2011 cohort)

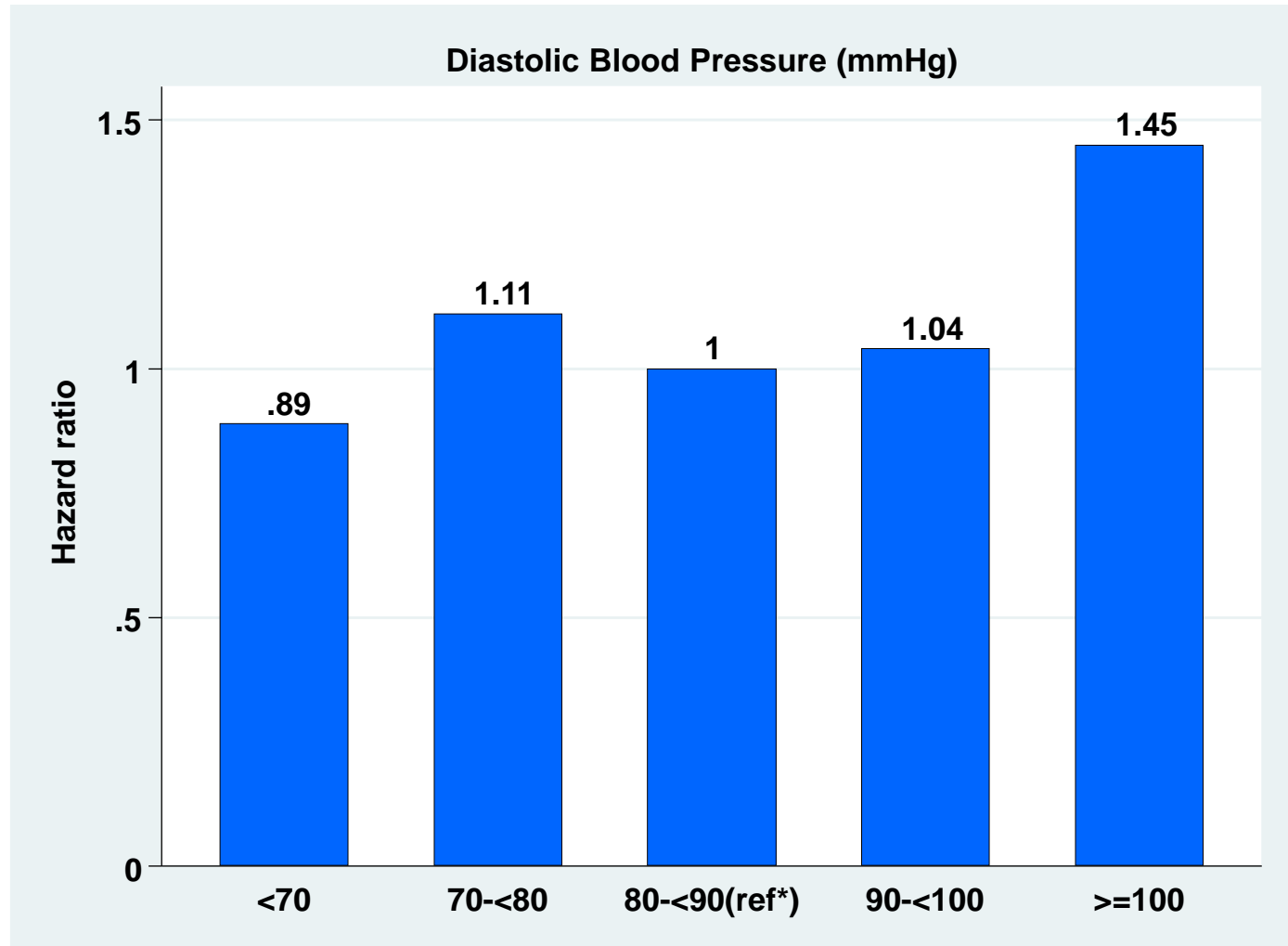


Figure 3.4.1 (b): Adjusted hazard ratio for mortality of dialysis patients uncensored for change of modality by serum phosphate (2002-2011 cohort)

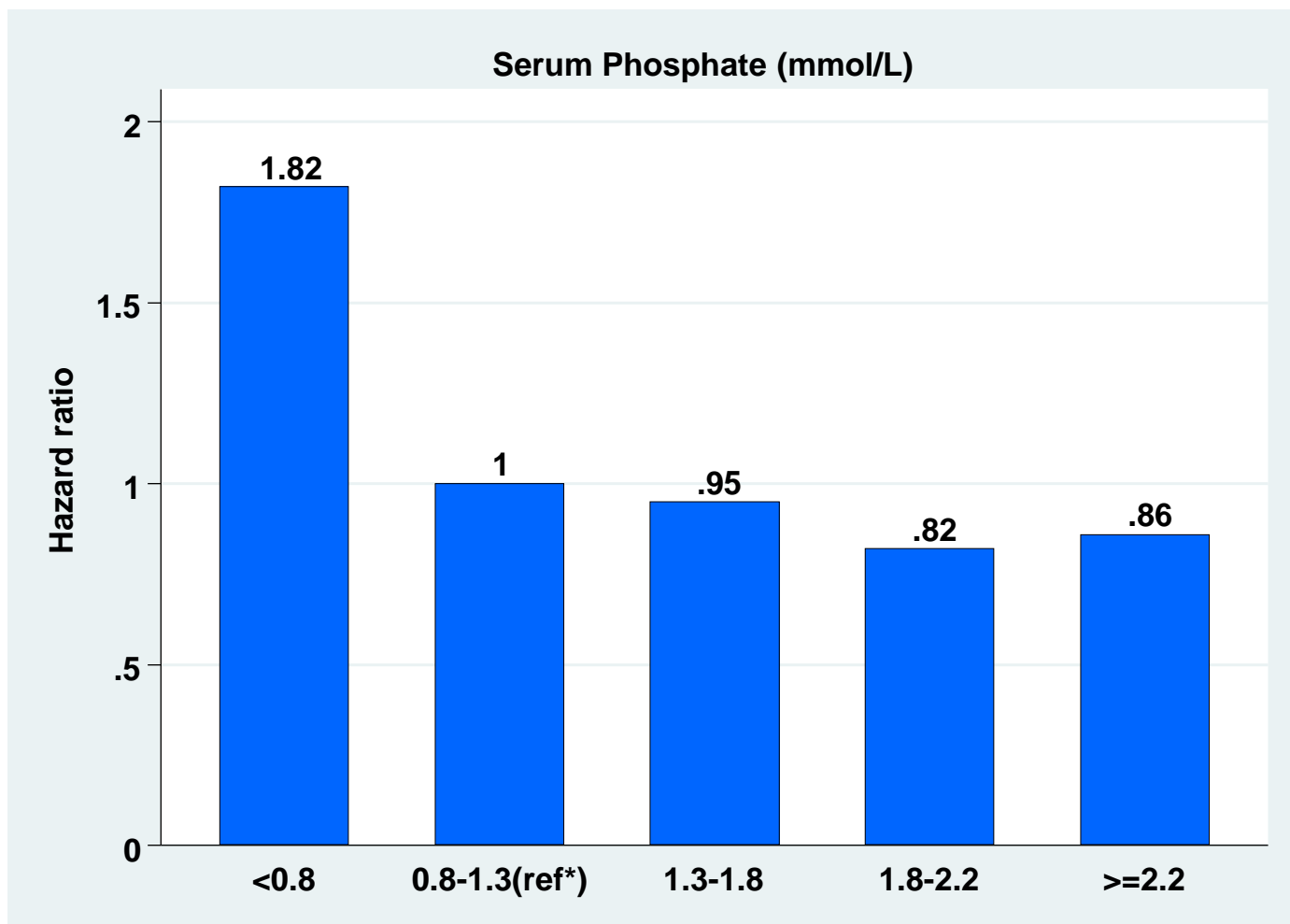


Figure 3.4.1 (c): Adjusted hazard ratio for mortality of dialysis patients uncensored for change of modality by hemoglobin (2002-2011 cohort)

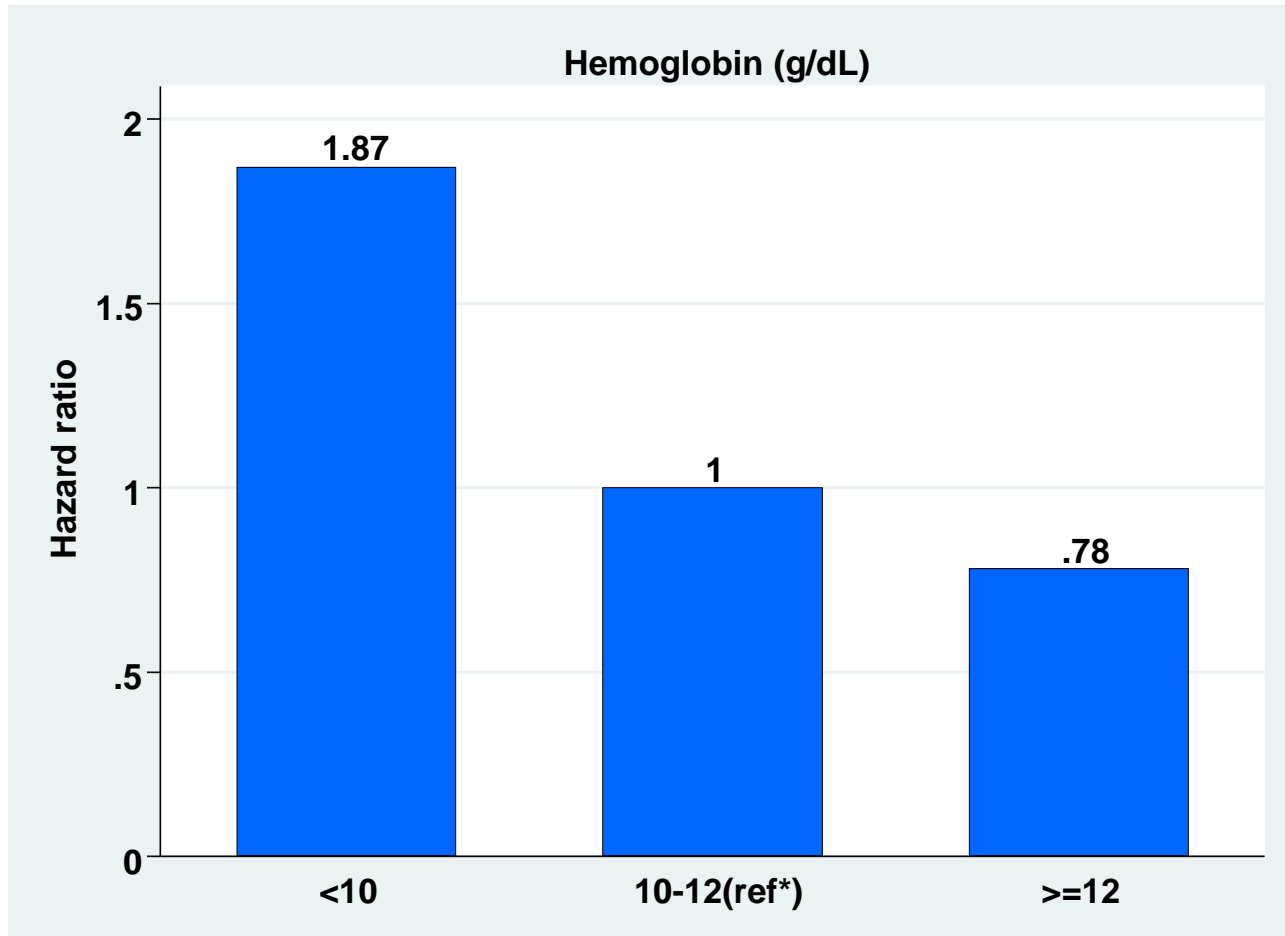


Table 3.4.2: Adjusted hazard ratio for mortality of HD patients uncensored for change of modality (2002-2011 cohort)

Factors	N	Hazard Ratio	95% CI	P-value
Age (years):				
• Age 1-14 (ref [†])	77	1.00		
• Age 15-24	875	0.87	(0.5; 1.51)	0.617
• Age 25-34	2079	0.86	(0.5; 1.48)	0.588
• Age 35-44	3735	1.23	(0.73; 2.1)	0.437
• Age 45-54	8555	1.76	(1.04; 2.99)	0.036
• Age 55-64	10174	2.31	(1.36; 3.92)	0.002
• Age >=65	8599	3.16	(1.86; 5.35)	<0.001
Gender:				
• Male (ref [†])	19193	1.00		
• Female	14901	0.79	(0.76; 0.83)	<0.001
Primary diagnosis:				
• Unknown primary (ref [†])	9515	1.00		
• Diabetes mellitus	19362	1.37	(1.31; 1.44)	<0.001
• GN/SLE	1222	0.81	(0.71; 0.92)	0.001
• Polycystic kidney	326	0.80	(0.64; 1)	0.048
• Obstructive nephropathy	703	0.95	(0.83; 1.08)	0.452
• Others	2966	0.94	(0.87; 1.01)	0.106
Year start dialysis:				
• 2001-2002 (ref [†])	2043	1.00		
• 2003-2004	4838	1.01	(0.95; 1.08)	0.676
• 2004-2006	6097	1.04	(0.98; 1.12)	0.203
• 2007-2008	7570	1.00	(0.94; 1.07)	0.940
• 2009-2010	8933	0.94	(0.87; 1.02)	0.119
BMI:				
• BMI<18.5	2145	1.31	(1.2; 1.42)	<0.001
• BMI 18.5-25	20584	1.12	(1.07; 1.18)	<0.001
• >=25 (ref [†])	11365	1.00		
Serum albumin (g/L):				
• <30	1219	4.80	(4.38; 5.25)	<0.001
• 30-<35	3807	2.31	(2.17; 2.47)	<0.001
• 35-<40	17754	1.87	(1.78; 1.96)	<0.001
• >=40 (ref [†])	11314	1.00		
Serum cholesterol (mmol/L):				
• <3.5	3331	0.87	(0.78; 0.97)	0.009
• 3.5-<5.2	24985	0.96	(0.88; 1.05)	0.351
• 5.2-<6.2	4182	0.80	(0.72; 0.89)	<0.001
• >=6.2 (ref [†])	1596	1.00		
Kt/V				
• <1	815	1.44	(1.28; 1.62)	<0.001
• 1-<1.2	2890	1.09	(1.02; 1.18)	0.018
• 1.2-<1.4 (ref [†])	6166	1.00		
• 1.4-<1.6	8784	1.11	(1.05; 1.17)	<0.001
• >=1.6	15439	1.03	(0.98; 1.09)	0.268

Factors	N	Hazard Ratio	95% CI	P-value
Diastolic BP (mmHg):				
• <70	5588	0.85	(0.8; 0.91)	<0.001
• 70-<80	13953	1.11	(1.06; 1.16)	<0.001
• 80-<90 (ref [†])	10714	1.00		
• 90-<100	3027	1.04	(0.96; 1.13)	0.292
• >=100	812	1.52	(1.33; 1.75)	<0.001
Hemoglobin:				
• <10	17540	1.94	(1.87; 2.02)	<0.001
• 10-<12 (ref [†])	14702	1.00		
• >=12	1852	0.74	(0.67; 0.81)	<0.001
Serum calcium (mmol/L):				
• <2.1	6855	1.03	(0.98; 1.08)	0.317
• 2.1-<=2.37 (ref [†])	22245	1.00		
• >2.37	4994	0.79	(0.75; 0.84)	<0.001
Calcium Phosphate product (mmol²/L²):				
• <3.5	12074	0.80	(0.76; 0.84)	<0.001
• 3.5-<4.5 (ref [†])	14757	1.00		
• 4.5-<5.5	5191	0.78	(0.72; 0.84)	<0.001
• >=5.5	2072	1.00	(0.88; 1.15)	0.960
Serum Phosphate (mmol/L):				
• <0.8	204	1.69	(1.39; 2.05)	0.000
• 0.8-<1.3 (ref [†])	3877	1.00		
• 1.3-<1.8	16320	0.97	(0.91; 1.03)	0.262
• 1.8-<2.2	9404	0.82	(0.75; 0.89)	<0.001
• >=2.2	4289	0.85	(0.74; 0.96)	0.012
HBsAg:				
• Negative (ref [†])	32957	1.00		
• Positive	1137	1.09	(0.99; 1.2)	0.070
Anti-HCV:				
• Negative (ref [†])	33316	1.00		
• Positive	778	1.06	(0.95; 1.18)	0.314
Cardiovascular disease (CVD)				
• No CVD (ref [†])	29076	1.00		
• CVD	5018	1.29	(1.23; 1.35)	<0.001

Figure 3.4.2: Adjusted hazard ratio for mortality of HD patients uncensored for change of modality by Kt/V (2002-2011 cohort)

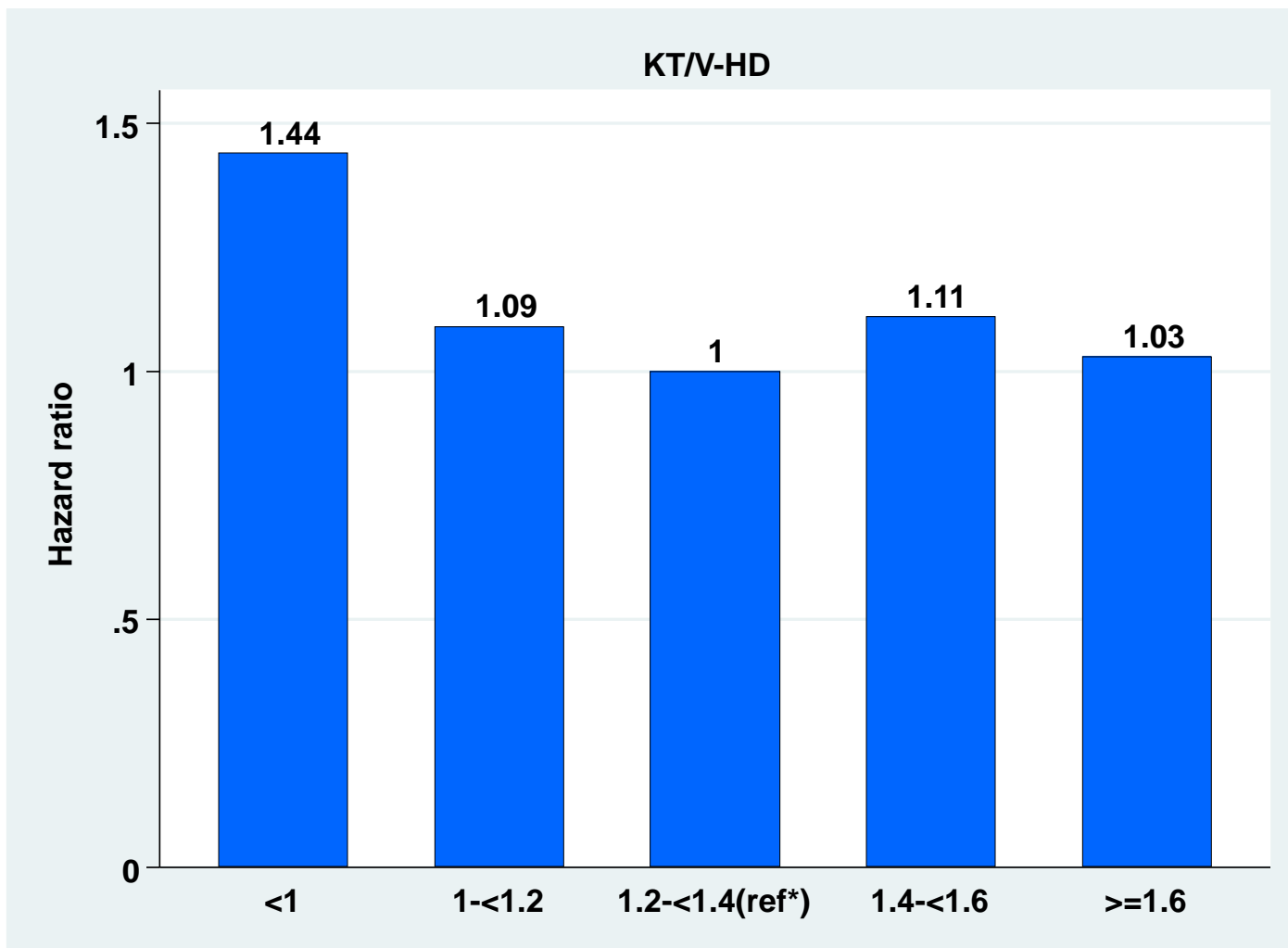


Table 3.4.3: Adjusted hazard ratio for mortality of PD patients uncensored for change of modality (2002-2011 cohort)

Factors	N	Hazard Ratio	95% CI	P-value
Age (years):				
• Age 1-14 (ref)	318	1.00		
• Age 15-24	383	1.50	(1; 2.27)	0.052
• Age 25-34	368	1.66	(0.9; 3.06)	0.108
• Age 35-44	517	2.60	(1.44; 4.73)	0.002
• Age 45-54	927	3.62	(2; 6.54)	<0.001
• Age 55-64	1088	4.46	(2.47; 8.07)	<0.001
• Age >=65	837	6.71	(3.76; 11.96)	<0.001
Gender:				
• Male (ref)	2244	1.00		
• Female	2194	0.97	(0.85; 1.12)	0.700
Primary diagnosis:				
• Unknown primary (ref)	999	1.00		
• Diabetes mellitus	2180	1.64	(1.4; 1.92)	<0.001
• GN/SLE	529	1.00	(0.8; 1.25)	0.997
• Polycystic kidney	33	0.69	(0.36; 1.3)	0.247
• Obstructive nephropathy	175	1.17	(0.87; 1.57)	0.313
• Others	522	0.83	(0.68; 1.01)	0.060
Year start dialysis:				
• 2001-2002 (ref)	369	1.00		
• 2003-2004	661	0.94	(0.79; 1.12)	0.476
• 2004-2006	712	0.95	(0.8; 1.14)	0.584
• 2007-2008	1084	0.88	(0.74; 1.05)	0.159
• 2009-2010	1084	0.72	(0.59; 0.88)	0.002
BMI:				
• BMI<18.5	564	1.30	(1.05; 1.6)	0.014
• BMI 18.5-25	2264	1.13	(1.02; 1.26)	0.019
• >=25 (ref)	1610	1.00		
Serum albumin (g/L):				
• <30	1359	1.75	(1.36; 2.25)	<0.001
• 30-<35	1682	1.15	(0.9; 1.47)	0.278
• 35-<40	1081	0.89	(0.69; 1.14)	0.353
• >=40 (ref)	316	1.00		
Serum cholesterol (mmol/L):				
• <3.5	191	1.07	(0.83; 1.38)	0.576
• 3.5-<5.2	2228	0.95	(0.82; 1.09)	0.429
• 5.2-<6.2	1236	1.00	(0.86; 1.16)	0.979
• >=6.2 (ref)	783	1.00		
Kt/V				
• <1.7	2610	1.13	(0.94; 1.35)	0.190
• 1.7-<2.0 (ref)	1298	1.30	(0.82; 2.05)	0.263
• >=2.0	530	1.00		

Factors	N	Hazard Ratio	95% CI	P-value
Diastolic BP (mmHg):				
• <70	604	1.23	(1.05; 1.43)	0.009
• 70-<80	1601	1.04	(0.93; 1.17)	0.461
• 80-<90 (ref)	1673	1.00		
• 90-<100	497	1.08	(0.9; 1.29)	0.400
• >=100	63	0.81	(0.5; 1.32)	0.400
Hemoglobin:				
• <10	1642	1.44	(1.3; 1.6)	<0.001
• 10-<12 (ref)	2344	1.00		
• >=12	452	0.94	(0.8; 1.12)	0.501
Serum calcium (mmol/L):				
• <2.1	1119	1.05	(0.93; 1.19)	0.417
• 2.1-<=2.37 (ref)	2444	1.00		
• >2.37	875	1.04	(0.91; 1.18)	0.563
Calcium Phosphate product (mmol²/L²):				
• <3.5	2601	1.10	(0.95; 1.28)	0.207
• 3.5-<4.5 (ref)	1253	1.00		
• 4.5-<5.5	422	1.06	(0.83; 1.34)	0.655
• >=5.5	162	1.13	(0.75; 1.71)	0.558
Serum Phosphate (mmol/L):				
• <0.8	53	2.69	(1.89; 3.82)	<0.001
• 0.8-<1.3 (ref)	1214	1.00		
• 1.3-<1.8	2138	0.90	(0.8; 1.02)	0.113
• 1.8-<2.2	691	0.88	(0.69; 1.11)	0.263
• >=2.2	342	1.06	(0.74; 1.52)	0.760
HBsAg:				
• Negative (ref)	4289	1.00		
• Positive	149	1.03	(0.81; 1.31)	0.810
Anti-HCV:				
• Negative (ref)	4367	1.00		
• Positive	71	1.11	(0.79; 1.57)	0.544
Cardiovascular disease (CVD)				
• No CVD (ref)	3514	1.00		
• CVD	924	1.34	(1.2; 1.5)	<0.001

Figure 3.4.4(a): Variations in RAMR by HD centre, 2010

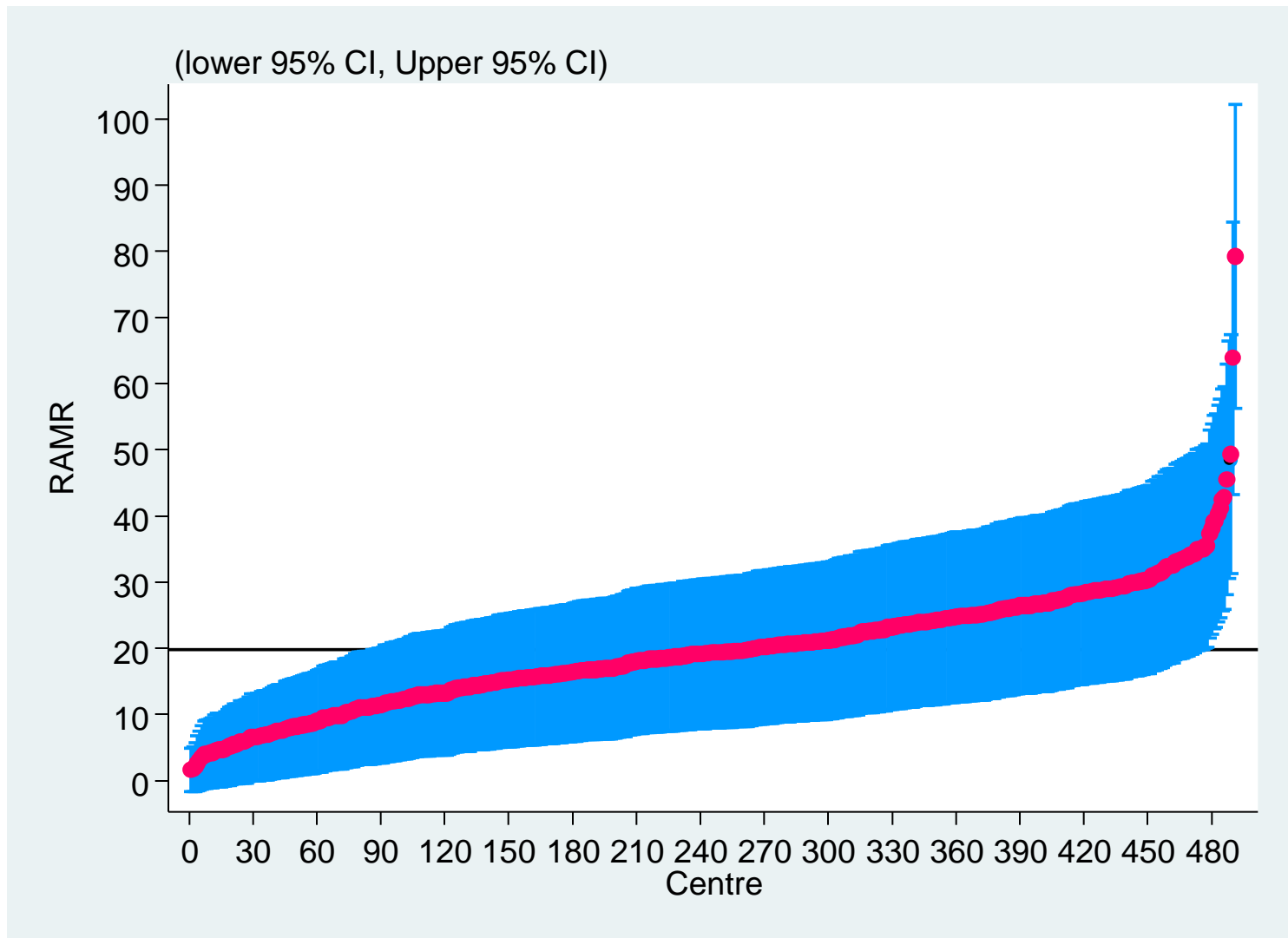


Figure 3.4.4(b): Funnel plot of RAMR by HD centre, 2010

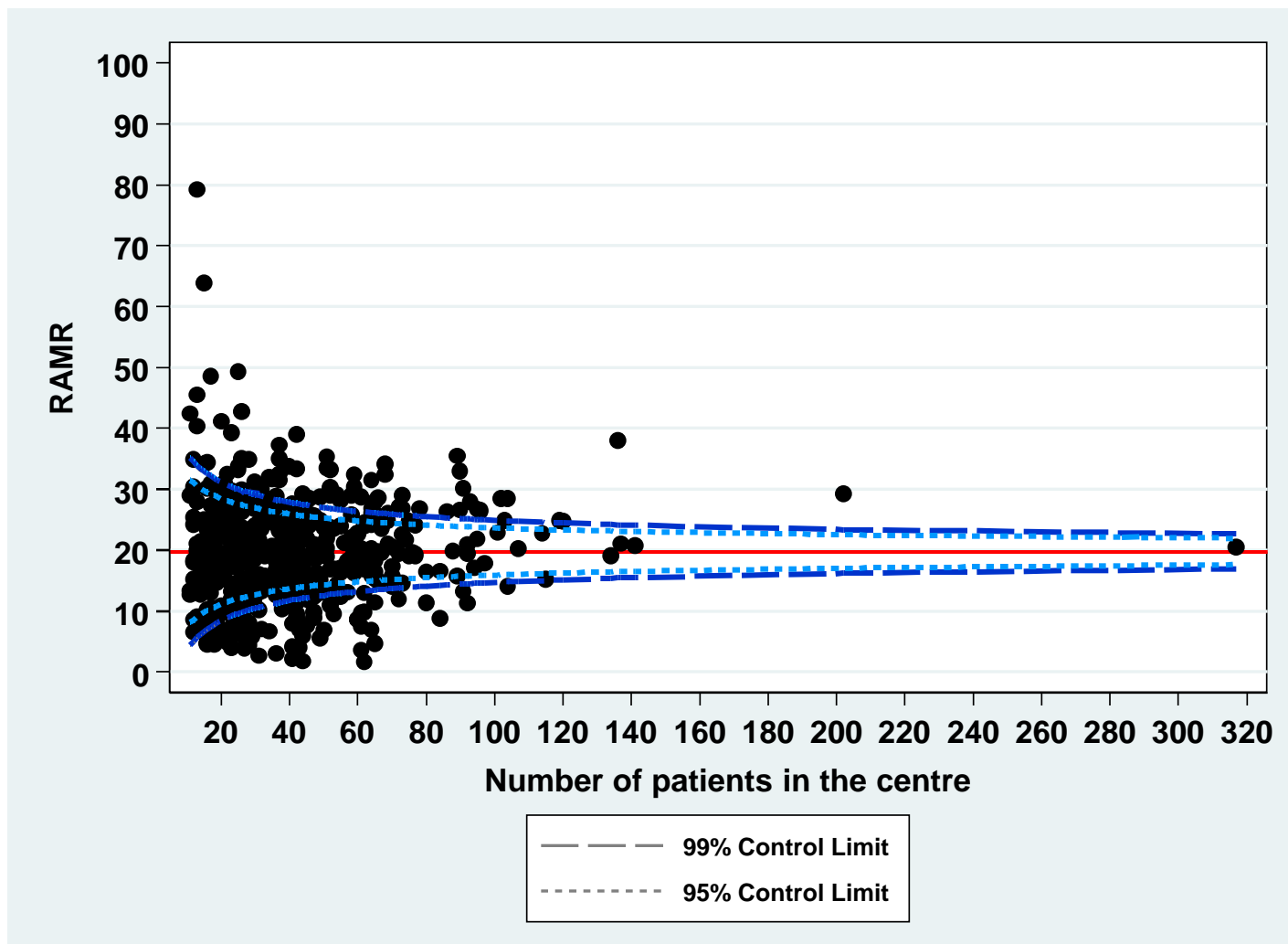


Figure 3.4.5(a): Variations in RAMR by PD centres, 2010

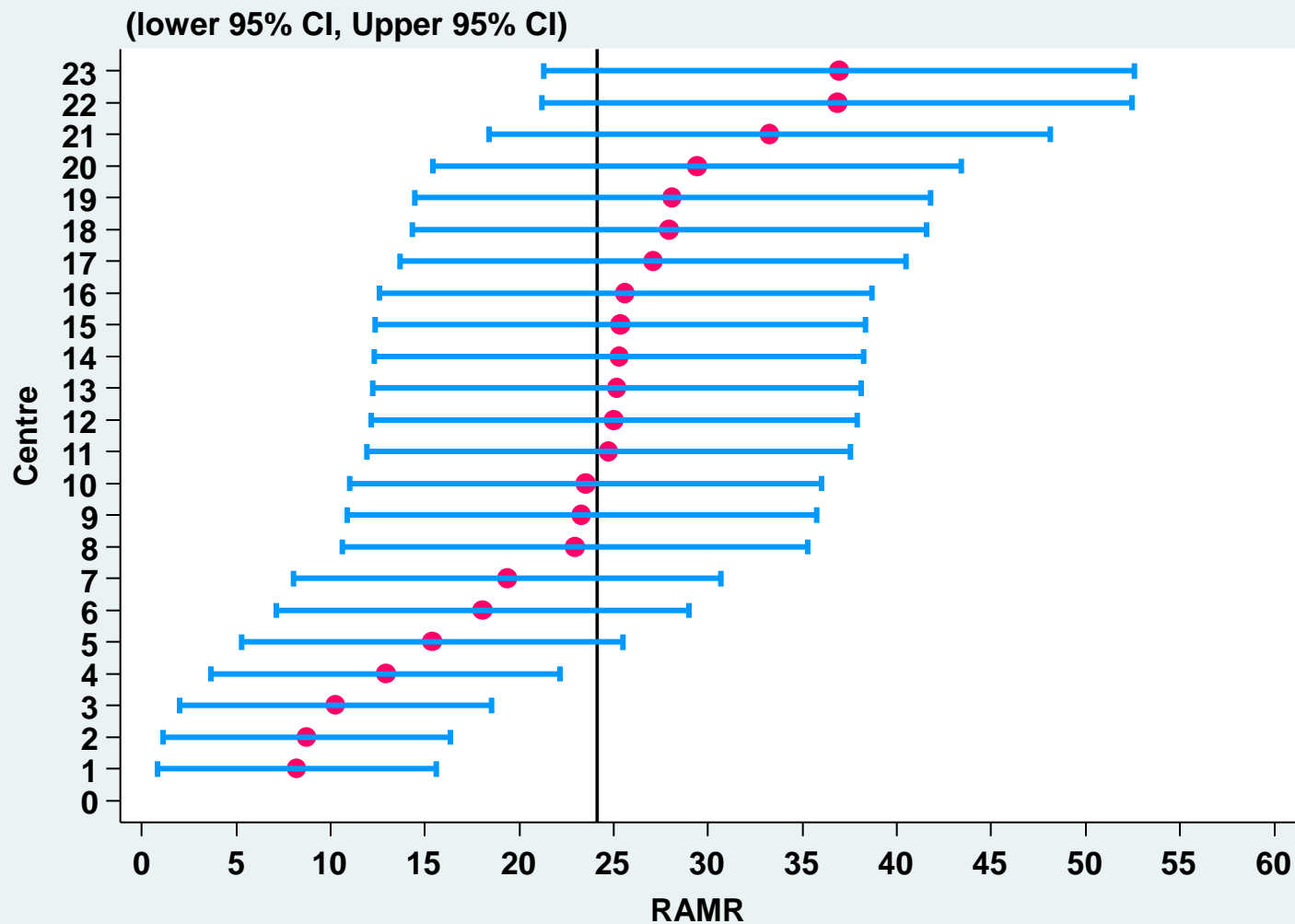


Figure 3.4.5(b): Funnel plot for RAMR by PD centres, 2010

