

HAEMODIALYSIS
IN
NON-GOVERNMENTAL ORGANISATION (NGO)
CENTRES

Stock and Flow
Death on Haemodialysis and Transfer to PD
NGO Haemodialysis Centres
Haemodialysis Patient Characteristics
Survival Analysis
Work related rehabilitation and quality of life
Haemodialysis practices
Dyslipidaemia in HD patients
Treatment of Renal Bone Disease
Management of Blood Pressure
Management of Anaemia
Nutritional status
Prevalence of anti-HCV antibodies and HBsAg

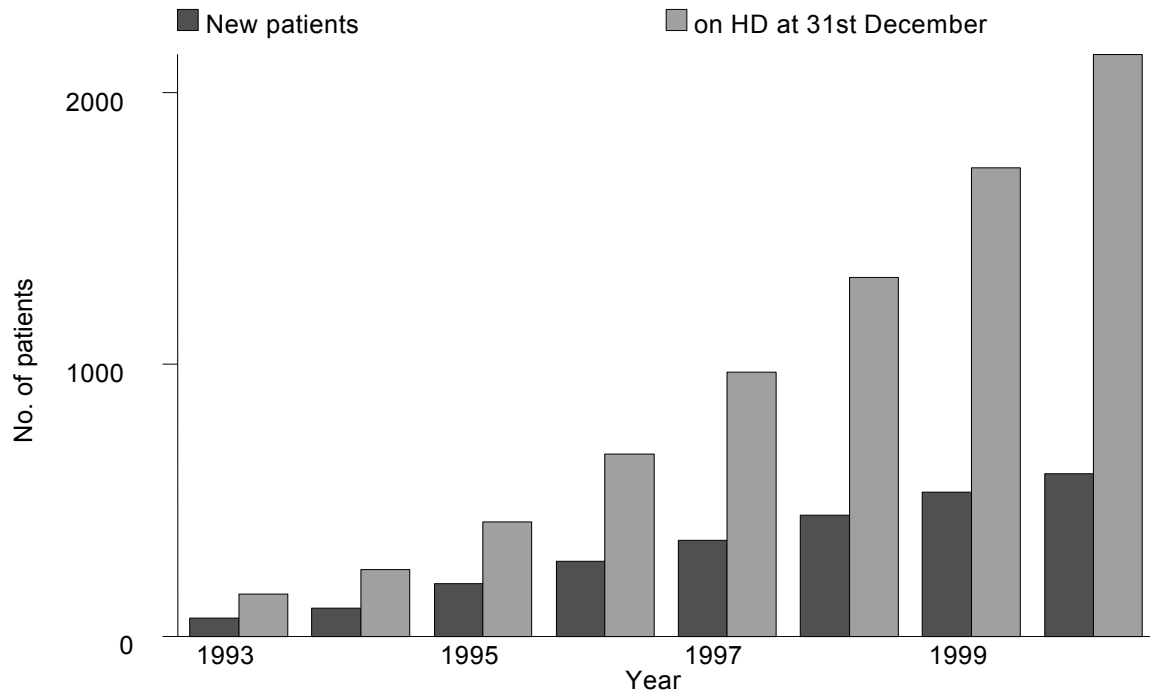
3.2: HAEMODIALYSIS IN NON-GOVERNMENTAL ORGANISATION (NGO) CENTRES

3.2.1 STOCK AND FLOW

Table 3.2.01: Stock and Flow HD patients, NGO Centres 1993 - 2000

Year	1993	1994	1995	1996	1997	1998	1999	2000
New patients	68	104	193	277	353	445	530	598
Died	0	8	15	20	42	81	108	144
Transferred to PD	0	0	0	0	0	1	4	8
Transplanted	0	6	2	5	8	13	15	24
Lost to Follow up	0	0	1	2	1	1	2	4
On HD at 31st December	155	245	420	670	972	1321	1722	2140

Figure 3.2.01: Stock and Flow HD patients, NGO Centres 1993 - 2000



3.2 3 DEATH ON HAEMODIALYSIS, NGO CENTRES

Table 3.2.04: Death Rate on HD and Transfer to PD, NGO Centres 1993 – 2000

Year	1993	1994	1995	1996	1997	1998	1999	2000
No. of patients at risk	155	200	333	545	821	1147	1522	1931
Deaths	0	8	15	20	42	81	108	144
Death rate %	0	4	5	4	5	7	7	7
Transfer to PD	0	0	0	0	0	1	4	8
Transfer to PD rate %	0	0	0	0	0	0	0	0
All Losses	0	8	15	20	42	82	112	152
All Losses rate %	0	4	5	4	5	7	7	8

Figure 3.2.04: Death Rate on HD, NGO Centres, 1993 - 2000

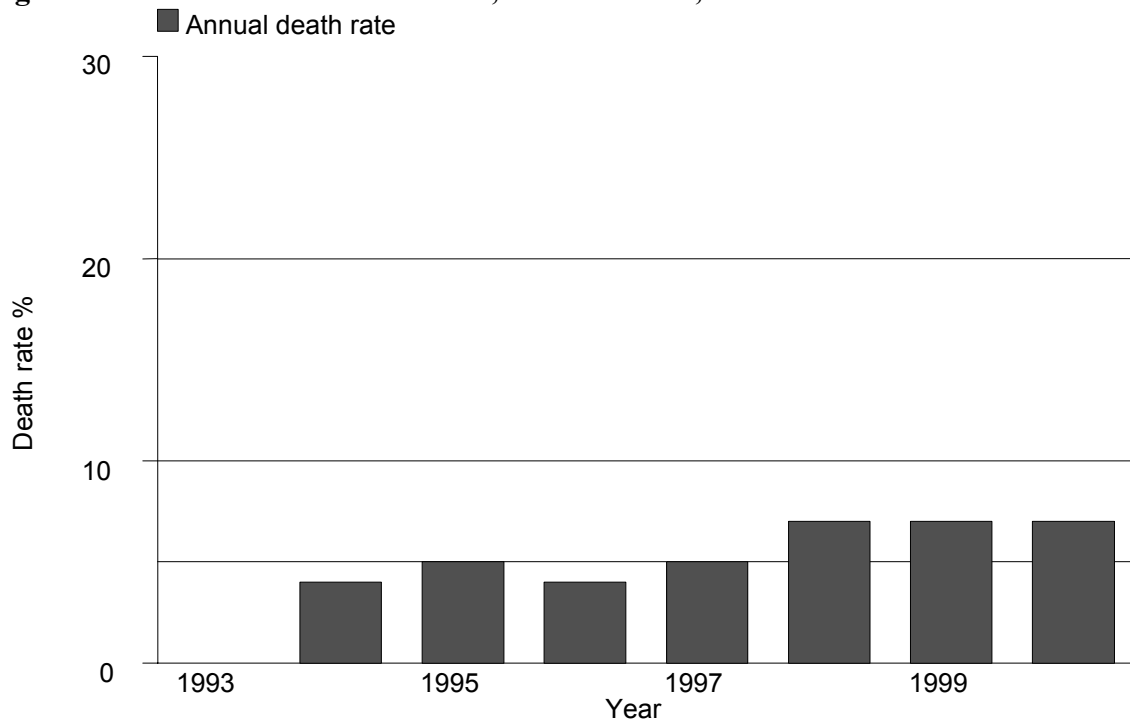


Table 3.2.05: Causes of Death, NGO Centres 1997 – 2000

Causes of death	1997		1998		1999		2000	
	No.	%	No.	%	No.	%	No.	%
Cardiovascular	10	24	37	46	33	31	51	35
Died at home	5	12	6	7	16	15	38	26
Sepsis	4	10	6	7	11	10	15	10
GIT bleed	0	0	2	2	3	3	1	1
Cancer	1	2	1	1	2	2	1	1
Liver disease	0	0	1	1	4	4	3	2
Others	16	38	25	31	30	28	35	24
Unknown	6	14	3	4	9	8	0	0
Total	42	100	81	100	108	100	144	100

3.2.4 NGO HAEMODIALYSIS CENTRES

Table 3.2.07: Centre Distribution of HD patients, NGO Centres, 2000

	Centre	No	percent
	No.on HD at 31st December	2140	100
1	AMD Rotary Dialysis Centre, Penang	7	0
2	Amitabha Haemodialysis Centre	17	1
3	Bakti-NKF Dialysis Centre, Kelang	52	2
4	Batu Pahat Rotary Haemodialysis Centre	52	2
5	Berjaya NKF Dialysis Centre, Petaling Jaya	53	2
6	Buddhist Tzu-Chi Dialysis Centre	35	2
7	Charis-NKF Dialysis Centre, Cheras	63	3
8	Che Eng Khor Haemodialysis Centre	27	1
9	CHKMUS-MAA Medical Charity Dialysis Centre, Kuching	50	2
10	Haemodialysis Association Klang	36	2
11	JB Lion MAA-Medicare Charity Dialysis	78	4
12	KAS-Rotary/NKF Dialysis Centre, Sarawak	19	1
13	KB Rotary-MAA Dialysis Centre	19	1
14	Kiwanis Dialysis Centre	1	0
15	Kluang Rotary Haemodialysis Centre	31	1
16	Kulai Rotary Haemodialysis Centre	71	3
17	Lion Club of Alor Setar-NKF Dialysis Centre	49	2
18	MAA Medicalre Charity Dialysis Centre, Butterworth	58	3
19	MAA Medicare Charity Dialysis Centre, Cheras	60	3
20	MAA Medicare Charity Dialysis Centre, Kajang	37	2
21	MAA Medicare Charity Dialysis Centre, Kuala Lumpur	97	5
22	MAA Medicare Charity Dialysis Centre, Teluk Intan	43	2
23	Mersing Rotary Haemodialysis Centre	3	0
24	Moral Uplifting-NKF Dialysis Centre, Ipoh	64	3
25	Muar Lions Renal Centre	77	4
26	NKF Dialysis Centre, Kuala Lumpur	56	3
27	Pahang Buddhist Association Haemodialysis Centre	29	1
28	Persatuan Buah Pinggang Sabah	23	1
29	Persatuan Bulan Sabit Merah Cawangan Miri	21	1
30	Persatuan Membaiki Akhlak Che Luan Khor	24	1
31	Pertubuhan Bakti Fo En Bandar Kulim	3	0
32	Pertubuhan Hemodialisis Seberang Perai Selatan	23	1

33	Pontian Rotary Haemodialysis Centre	47	2
34	Pusat Dialisis Klinik Waqaf An-nur	9	0
35	Pusat Hemodialisis Darul Iltizam	38	2
36	Pusat Hemodialisis Manjung_NKF	41	2
37	Pusat Hemodialisis Mawar N. Sembilan, Bahau	11	1
38	Pusat Hemodialisis Mawar N. Sembilan, Lukut	14	1
39	Pusat Hemodialisis Mawar N. Sembilan, Seremban	117	5
40	Pusat Hemodialisis MCA Pasar Meru	2	0
41	Pusat Hemodialisis Rotary Kota Tinggi	12	1
42	Pusat Hemodialisis SJAM Bacang Melaka	78	4
43	Pusat Hemodialisis Yayasan Felda	44	2
44	Pusat Muhibah Hemodialisis Pesatuan Tionghua Segamat	66	3
45	Pusat Rawatan Islam, Kuala Lumpur	26	1
46	Pusat Rawatan Islam, Petaling Jaya	3	0
47	Rotary Club Damansara-NKF Dialysis Centre, Kepong	55	3
48	Rotary Club Tawau Tanjung Haemodialysis Centre	3	0
49	Rotary Haemodialysis Centre, Johor Bahru	36	2
50	Sibu Kidney Foundation Haemodialysis Centre	35	2
51	SJAM-KPS Haemodialysis, Kelang	45	2
52	Superkids Trinity-NKF Dialysis Centre, Alor Setar	1	0
53	TDC-NKF Trengganu Dialysis Centre	24	1
54	The Nayang-NKF Dialysis Centre, Kuala Lumpur	5	0
55	The Penang Community Haemodialysis Society	28	1
56	Woh Peng Cheang Seah Dialysis Centre	32	1
57	Yayasan Dialisis Pertubohan Pendidikan Akhlak-NKF, Taiping	15	1
58	Yayasan Kebajikan SSL Heamodialisis	73	3
59	Yayasan Pembangunan Keluarga Johor-NKF	2	0

3.2.5 HAEMODIALYSIS PATIENTS' CHARACTERISTICS, NGO CENTRES

Table 3.2.08: Age Distribution of Dialysis Patients, NGO Centres 1997 – 2000

Year	1997	1998	1999	2000
New Dialysis patients	353	445	530	598
1-14 years	0	0	0	0
15-24 years	5	3	2	2
25-34 years	10	11	11	10
35-44 years	22	19	16	18
45-54 years	25	28	31	31
55-64 years	26	25	26	25
≥65 years	12	13	13	15
Dialysing at 31 st December	972	1321	1722	2140
1-14 years	0	0	0	0
15-24 years	4	4	4	3
25-34 years	15	14	13	12
35-44 years	23	23	22	21
45-54 years	27	28	28	29
55-64 years	21	22	23	23
≥65 years	9	10	10	11

Table 3.2.09: Patients' Characteristics , NGO Centres 1997 – 2000

Year	1997	1998	1999	2000
New Dialysis patients	353	445	530	598
Mean age±sd	49±13	50±13	50±13	51±13
% male	57	52	59	58
% Diabetic	33	45	42	46
% HbsAg+	5	4	4	5
% Anti-HCV+	6	5	7	4

3.2.6 SURVIVAL ANALYSIS, NGO CENTRES

Table 3.2.10: HD Patient Survival, NGO Centres 1995 - 2000

Year Interval (months)	1995			1996			1997		
	% survival	SE	No	% survival	SE	No	% survival	SE	No
6	97	1	186	97	1	268	95	1	337
12	93	2	176	96	1	260	92	1	319
24	91	2	169	91	2	245	83	2	286
36	87	2	161	78	3	212	77	2	261
48	83	3	152	74	3	198			
60	77	3	131						

Year Interval (months)	1998			1999			2000		
	% survival	SE	No	% survival	SE	No	% survival	SE	No
6	97	1	429	97	1	511	96	1	284
12	95	1	410	94	1	486			
24	88	2	365						

No. = number at risk SE = standard error

Figure 3.2.10: HD Patient Survival, NGO Centres 1996 -2000

Kaplan-Meier survival estimates, by Year

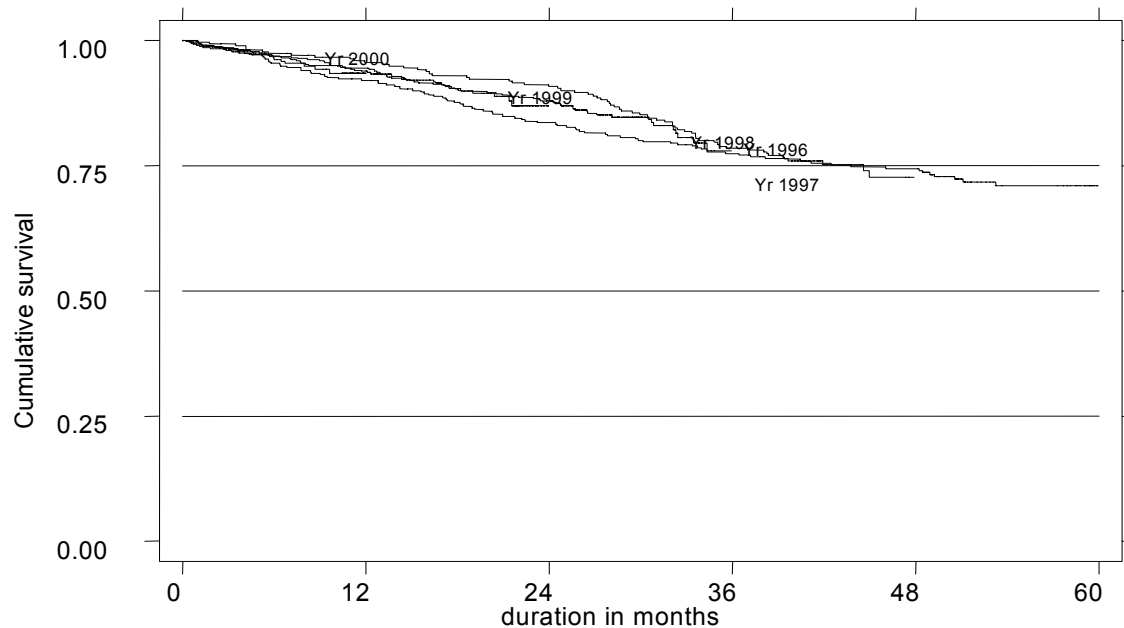


Table 3.2.11: HD Technique Survival, NGO Centres 1995-2000

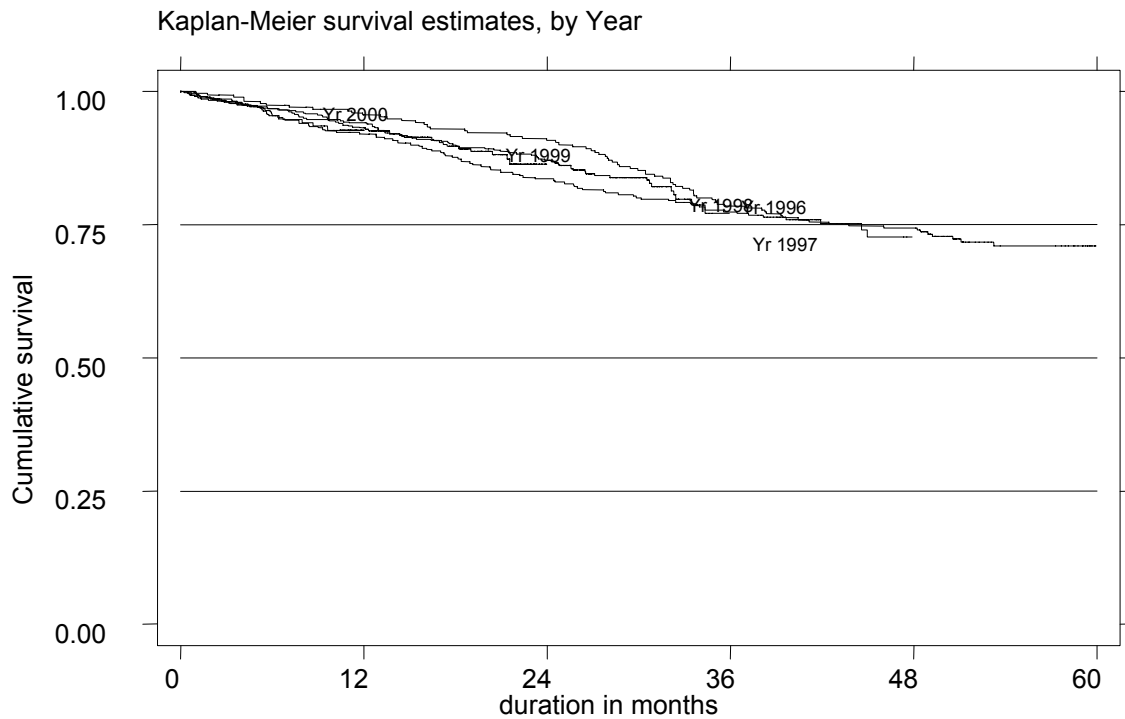
Year	1995			1996			1997		
Interval (months)	% survival	SE	No	% survival	SE	No	% survival	SE	No
6	97	1	186	97	1	268	95	1	337
12	93	2	176	96	1	260	92	1	319
24	91	2	169	91	2	245	83	2	286
36	87	2	161	78	3	212	77	2	261
48	83	3	152	74	3	198			
60	77	3	131						

Year	1998			1999			2000		
Interval (months)	% survival	SE	No	% survival	SE	No	% survival	SE	No
6	97	1	429	97	1	511	96	1	284
12	94	1	409	93	1	486			
24	87	2	367						

No. = number at risk

SE = standard error

Figure 3.2.11 HD Technique Survival by year of entry, NGO centres 1996 -2000



3.2.7 WORK RELATED REHABILITATION AND QUALITY OF LIFE ON HAEMODIALYSIS, NGO CENTRES

Table 3.2.12: Work Related Rehabilitation on HD, NGO centres 1997-2000

REHABILITATION STATUS	1997		1998		1999		2000	
	No.	%	No.	%	No.	%	No.	%
Full time work for pay	93	29	73	20	115	18	197	16
Part time work for pay	52	16	55	15	108	17	187	16
Able to work but unable to get a job	15	5	15	4	31	5	67	6
Able to work but not yet due to dialysis schedule	7	2	10	3	37	6	28	2
Able but disinclined to work	10	3	3	1	22	3	32	3
Home maker	70	22	111	31	183	28	317	26
Full time student	1	0	0	0	1	0	2	0
Age<15 years	1	0	0	0	0	0	0	0
Retired	17	5	24	7	46	7	107	9
Age>65 years	17	5	23	6	33	5	126	11
Unable to work due to poor health	39	12	48	13	77	12	135	11
Total	322	100	362	100	653	100	1198	100

Table 3.2.13: Quality of Life on Haemodialysis, NGO Centres 1997 – 2000

QOL Index Summated Score	1997		1998		1999		2000	
	No.	%	No.	%	No.	%	No.	%
0 (Worst QOL)	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	2	0
2	0	0	0	0	2	0	4	0
3	4	1	4	1	4	1	21	2
4	15	5	12	3	16	2	26	2
5	13	4	9	3	25	4	40	3
6	25	8	22	6	30	5	74	6
7	31	9	19	5	58	9	85	7
8	43	13	36	10	73	11	100	8
9	42	13	30	9	73	11	142	12
10 (Best QOL)	154	47	217	62	368	57	718	59
Total	327	100	349	100	649	100	1212	100

3.2.8 HAEMODIALYSIS PRACTICES IN NGO CENTRES

Table 3.2.14: Vascular Access on Haemodialysis, NGO Centres 1997 – 2000

Access types	1997		1998		1999		2000	
	No	%	No	%	No	%	No	%
Wrist AVF	291	89	356	87	602	84	1310	86
BCF*	29	9	43	10	91	13	180	12
Venous graft	2	1	3	1	2	0	3	0
Artificial graft	3	1	3	1	5	1	11	1
PERMCATH	0	0	0	0	2	0	2	0
Temporary CVC*	3	1	5	1	11	2	15	1
Total	328	100	410	100	713	100	1521	100

* BCF = Brachiocephalic fistula

* CVC = Central venous catheter

Table 3.2.15: Difficulties reported with Vascular Access, NGO Centres 1997 – 2000

Access difficulty	1997		1998		1999		2000	
	No	%	No	%	No	%	No	%
Difficulty with needle placement	14	4	12	3	23	3	41	3
Difficulty in obtaining desired blood flow rate	6	2	11	3	18	3	37	2
Other difficulty	4	1	4	1	11	2	9	1
No difficulty	304	93	394	94	665	93	1440	94
Total	328	100	421	100	717	100	1527	100

Table 3.2.16: Complications reported with Vascular Access, NGO Centres 1997 – 2000

Complication	1997		1998		1999		2000	
	No.	%	No.	%	No.	%	No.	%
Thrombosis	19	6	9	2	24	3	47	3
Bleed	6	2	8	2	3	0	5	0
Aneurysmal dilatation	14	4	4	1	15	2	42	3
Swollen limb	3	1	1	0	8	1	14	1
Access related infection, local/Systemic	1	0	3	1	3	0	8	1
Distal Limb ischaemia	0	0	2	0	0	0	15	1
Venous outflow obstruction	7	2	8	2	17	2	19	1
Carpal tunnel	1	0	0	0	1	0	4	0
Other	3	1	8	2	13	2	9	1
No complication	274	84	378	90	633	88	1368	89
Total	328	100	421	100	717	100	1531	100

Table 3.2.17: Blood Flow Rates in NGO HD Units 1997 – 2000

Blood flow rates	1997		1998		1999		2000	
	No.	%	No.	%	No.	%	No.	%
<150 ml/min	0	0	0	0	0	0	3	0
150-199 ml/min	7	2	8	2	12	2	31	2
200-249 ml/min	189	62	212	54	342	49	522	35
250-299 ml/min	86	28	145	37	282	41	765	52
300-349 ml/min	24	8	28	7	57	8	139	9
> 350 ml/min	0	0	1	0	1	0	12	1
Total	306	100	394	100	694	100	1472	100

Table 3.2.18: Number of HD Sessions per week, NGO HD Units 1997 – 2000

HD sessions Per week	1997		1998		1999		2000	
	No.	%	No.	%	No.	%	No.	%
1	0	0	0	0	1	0	3	0
2	2	1	3	1	20	3	86	6
3	322	99	410	99	693	97	1418	93
4	2	1	0	0	1	0	5	0
Total	326	100	413	100	715	100	1521	100

Table 3.2.19: Duration of HD in NGO HD Units 1997 – 2000

Duration of HD per session	1997		1998		1999		2000	
	No.	%	No.	%	No.	%	No.	%
≤3 hours	0	0	0	0	1	0	2	0
3.5 hours	0	0	0	0	1	0	2	0
4 hours	324	99	411	99	708	99	1491	98
4.5 hours	2	1	3	1	2	0	17	1
5 hours	1	0	0	0	2	0	7	0
≥5 hours	0	0	0	0	0	0	3	0
Total	327	100	414	100	714	100	1522	100

Table 3.2.20: Dialyser membrane types in NGO HD Units 1997 – 2000

Dialyser membrane	1997		1998		1999		2000	
	No.	%	No.	%	No.	%	No.	%
Cellulosic	225	74	257	68	332	56	457	39
Cellulose acetate	70	23	84	22	156	26	188	16
Synthetic	8	3	37	10	105	18	532	45
Total	303	100	378	100	593	100	1177	100

Table 3.2.21: Dialyser Reuse Frequency in NGO HD Units 1997 – 2000

Dialyser reuse frequency	1997		1998		1999		2000	
	No.	%	No.	%	No.	%	No.	%
1*	3	1	1	0	6	1	44	3
2	2	1	0	0	2	0	4	0
3	46	15	29	7	43	7	74	5
4	47	16	11	3	24	4	58	4
5	141	47	29	7	98	15	166	12
6	57	19	300	77	399	60	578	41
7	0	0	1	0	3	0	2	0
8	0	0	2	1	40	6	196	14
9	5	2	0	0	5	1	38	3
10	0	0	15	4	30	5	161	11
11	0	0	0	0	0	0	0	0
12	0	0	0	0	11	2	51	4
≥13	0	0	0	0	0	0	49	3
Total	301	100	388	100	661	100	1421	100

1* is single use i.e. no reuse

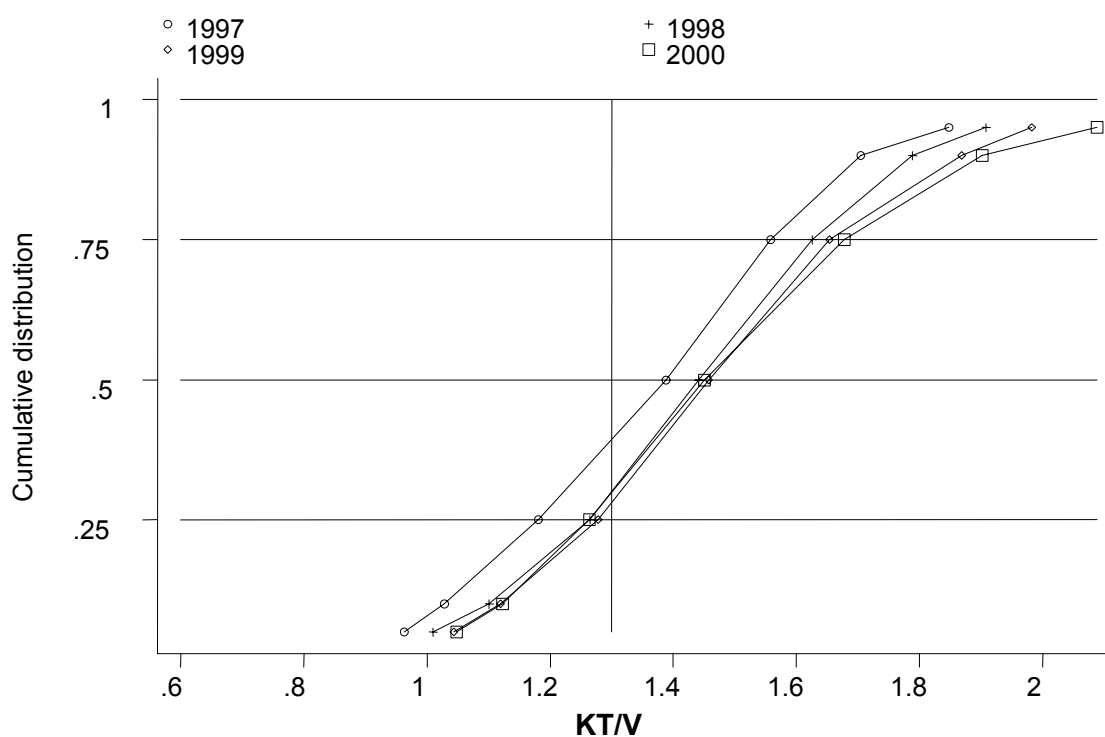
Table 3.2.22: Dialysate Buffer used in NGO HD Units 1997 – 2000

Dialysate buffer	1997		1998		1999		2000	
	No.	%	No.	%	No.	%	No.	%
Acetate	33	10	41	10	37	5	13	1
Bicarbonate	294	90	366	90	666	95	1502	99
Total	327	100	407	100	703	100	1515	100

**Table 3.2.23: Distribution of Prescribed KT/V, NGO Centres
1997 – 2000**

Year	No of subjects	No of observations	median	LQ	UQ	% > 1.3
1997	288	2378	1.4	1.2	1.6	60
1998	373	3661	1.4	1.3	1.6	71
1999	663	6584	1.5	1.3	1.7	72
2000	1327	13313	1.5	1.3	1.7	71

Figure 3.2.23: Cumulative distribution of Prescribed KT/V by year



3.2.9 DYSLIPIDAEMIA IN HD PATIENTS, NGO CENTRES

Table 3.2.24: Distribution of serum Cholesterol Concentrations (mmol/l), HD patients, NGO Centres 1997 - 2000

year	No of subjects	No of observations	median	LQ	UQ	% patients < 5.3 mmol/l
1997	293	471	4.9	4	5.9	65
1998	88	143	4.7	4.1	5.6	73
1999	142	230	4.9	4.1	5.6	69
2000	932	1459	5	4.2	5.9	65

Figure 3.2.24: Cumulative distribution of serum cholesterol concentration by year

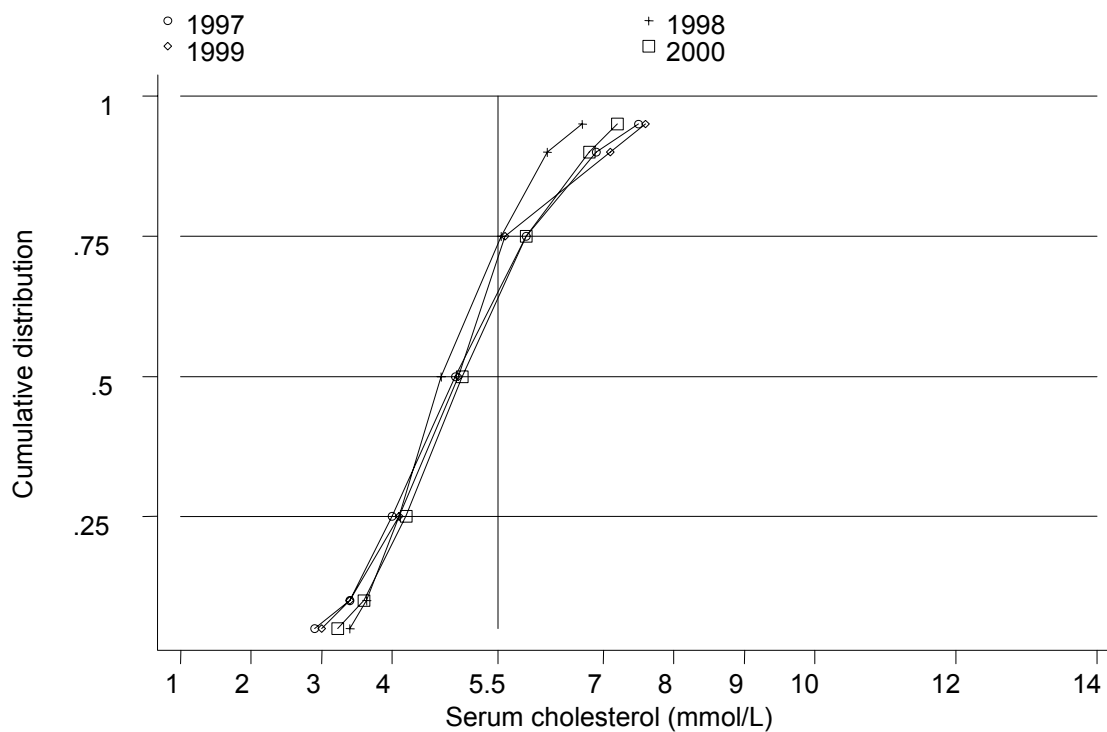


Table 3.2.25: Distribution of serum Triglyceride (mmol/l), HD patients, NGO Centres 1997 – 2000

Year	No of subjects	No of observations	median	LQ	UQ	% patients < 3.5 mmol/l
1997	265	423	1.7	1.3	2.5	88
1998	75	118	1.8	1.3	2.8	87
1999	123	197	1.8	1.3	2.7	85
2000	583	887	1.9	1.3	2.7	86

Figure 3.2.25: Cumulative distribution of serum triglyceride concentration by year

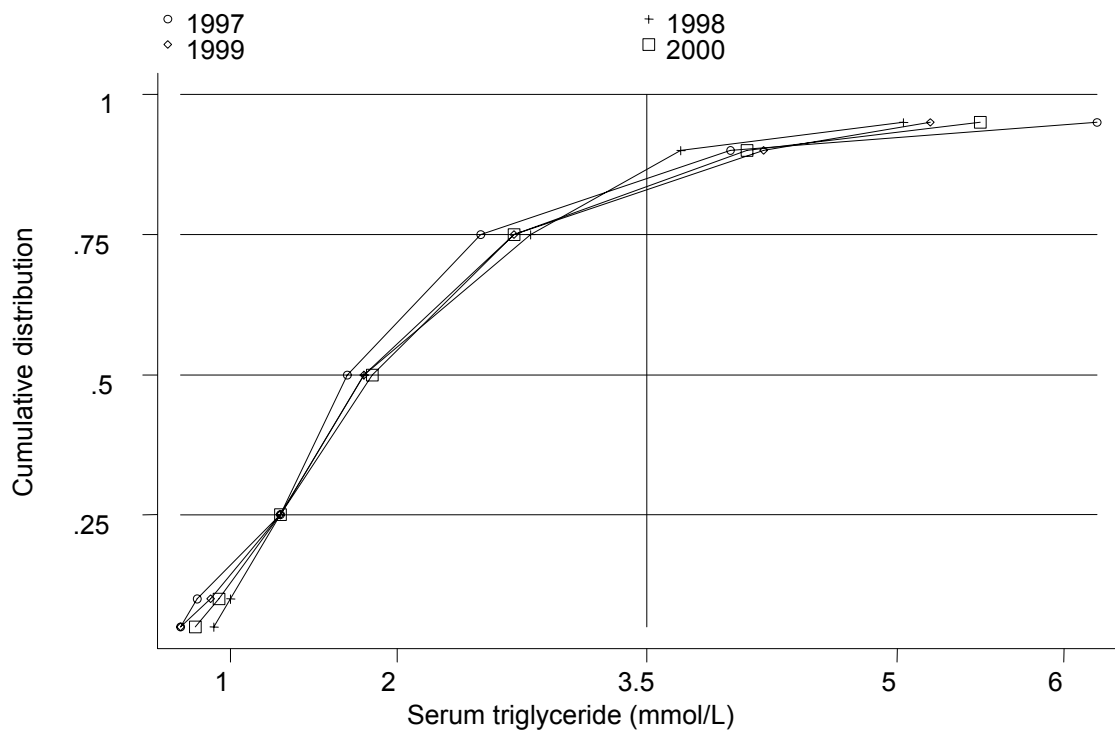


Table 3.2.26: Distribution of serum LDL (mmol/l), HD patients, NGO Centres 1997 – 2000

year	No of subjects	No of observations	median	LQ	UQ	% patients <5 mmol/l
1997	227	340	2.9	2.2	3.7	94
1998	29	42	2.7	1.7	3.2	98
1999	32	40	2.8	2.5	3.3	98
2000	442	620	2.8	2.2	3.6	97

Figure 3.2.26 : Cumulative distribution of serum LDL by year

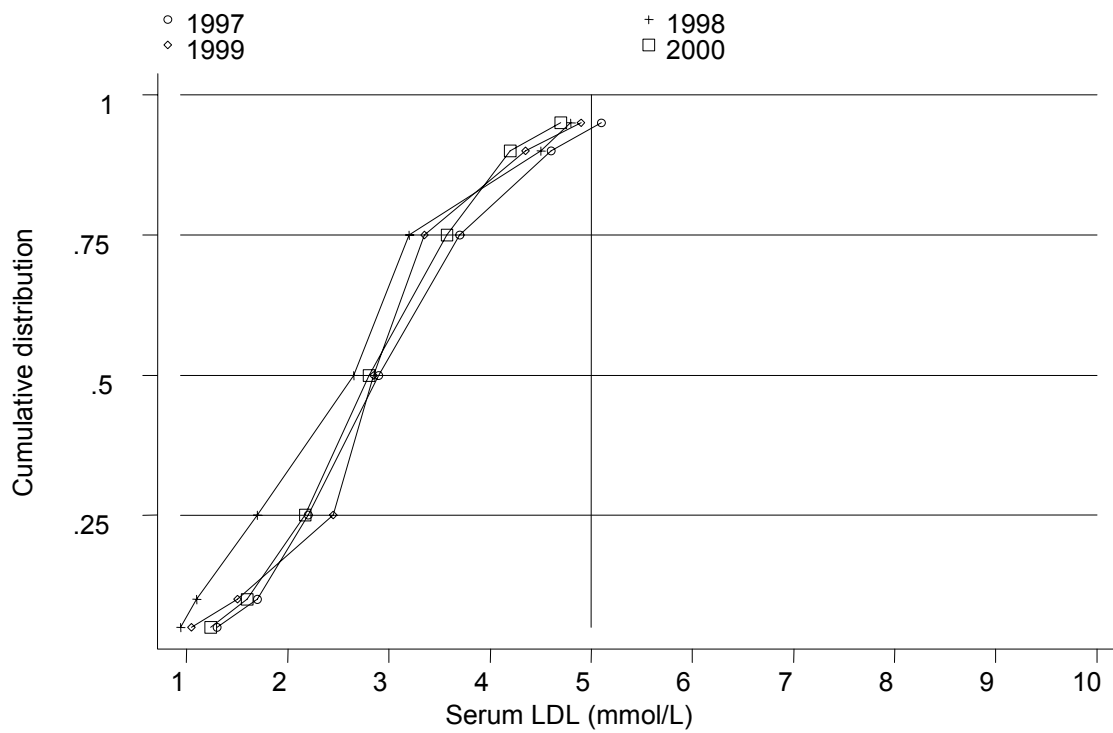
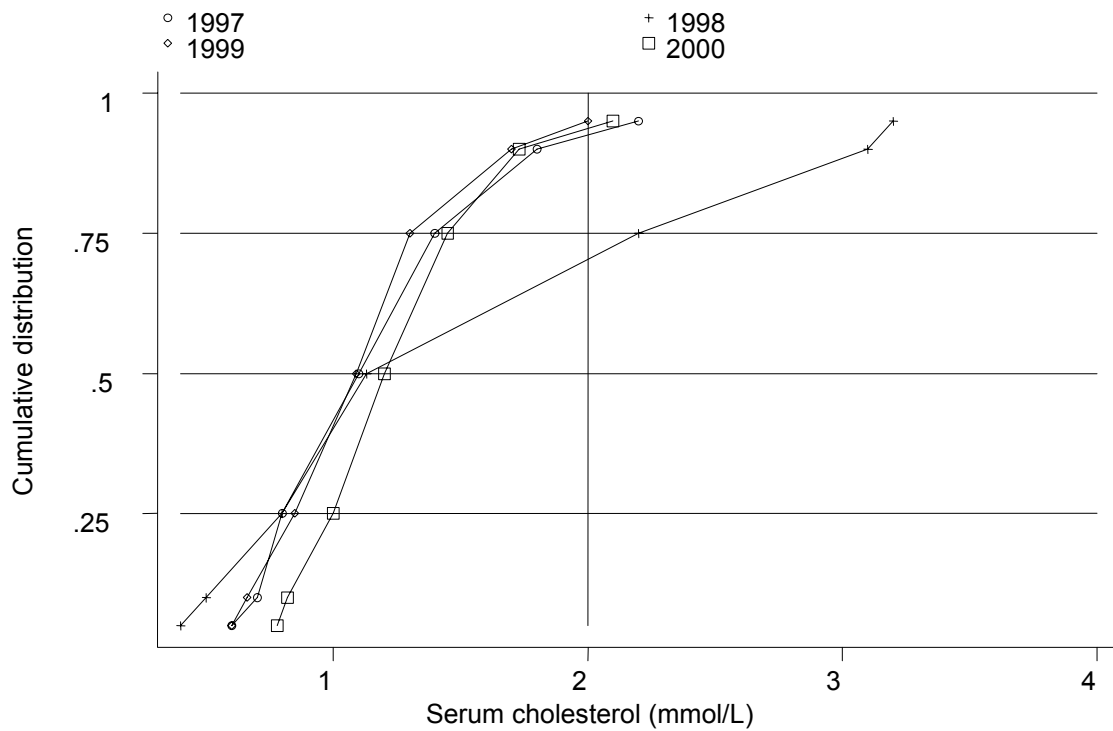


Table 3.2.27: Distribution of serum HDL (mmol/l), HD patients, NGO Centres 1997 – 2000

year	No of subjects	No of observations	median	LQ	UQ	% patients < 2mmol/l
1997	241	367	1.1	.8	1.4	91
1998	30	44	1.1	.8	2.2	73
1999	34	41	1.1	.9	1.3	93
2000	471	675	1.2	1	1.5	94

Figure 3.2.27: Cumulative distribution of serum HDL by year



3.2.10 MANAGEMENT OF RENAL BONE DISEASE, NGO CENTRES

Table 3.2.28: Treatment for Renal Bone Disease, HD patients, NGO Centres 1997 - 2000

year	No of subjects	% on CaCO ₃	% on Al(OH) ₃	% on Vitamin D
1997	330	95	17	40
1998	422	96	8	39
1999	719	91	6	30
2000	1543	92	3	22

Table 3.2.29: Distribution of serum Phosphate (mmol/l), HD patients, NGO Centres 1997 – 2000

Year	No of subjects	No of observations	median	LQ	UQ	% patients < 1.6 mmol/l
1997	320	968	2	1.5	2.5	28
1998	399	1096	1.9	1.5	2.3	29
1999	683	1865	1.9	1.5	2.3	30
2000	1401	3697	1.8	1.5	2.2	32

Figure 3.2.29: Cumulative distribution of serum Phosphate by year

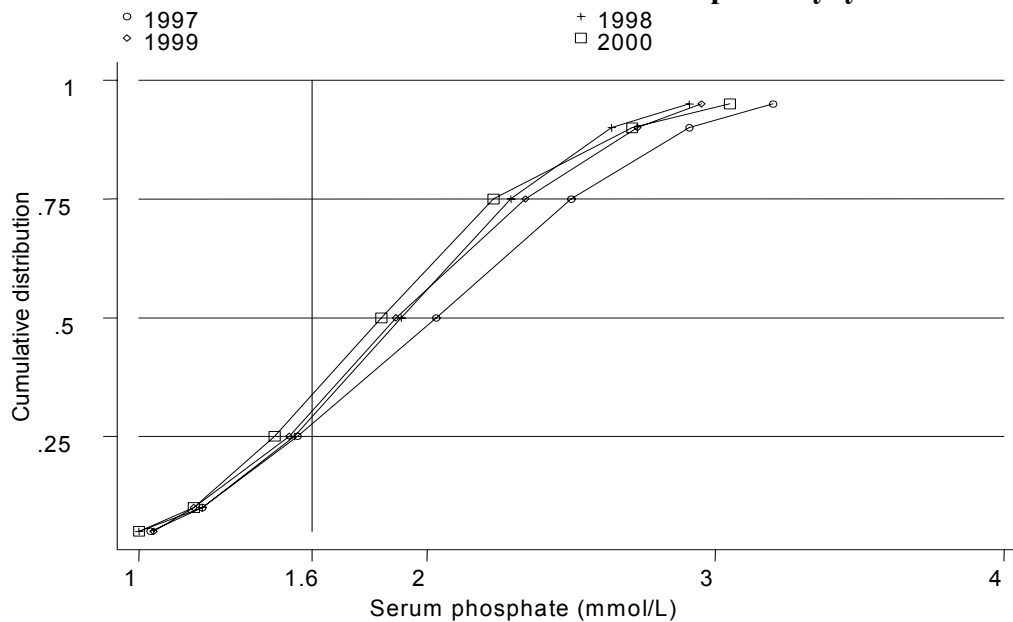


Table 3.2.30: Distribution of serum Calcium (mmol/l), HD patients, NGO Centres 1997 – 2000

year	No of subjects	No of observations	median	LQ	UQ	% patients ≥ 2.2 & ≤ 2.6 mmol/l
1997	321	967	2.3	2.2	2.5	57
1998	404	1107	2.3	2.2	2.5	56
1999	691	1884	2.3	2.2	2.5	57
2000	1394	3720	2.3	2.2	2.5	61

Figure 3.2.30: Cumulative distribution of serum Calcium by year

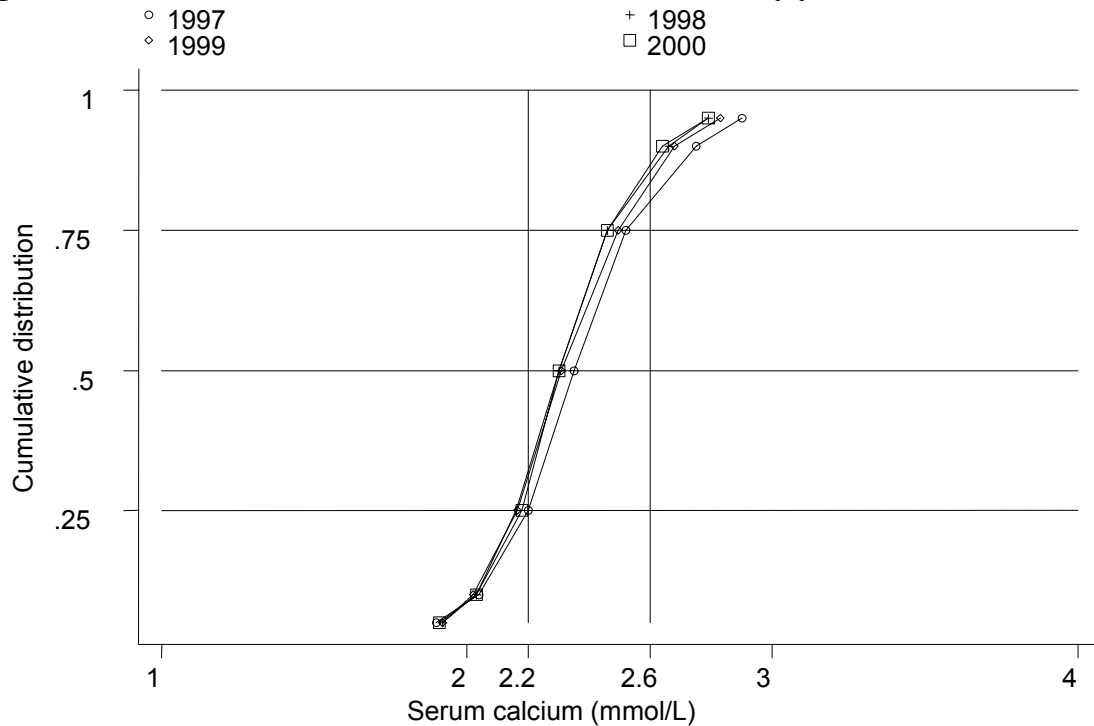
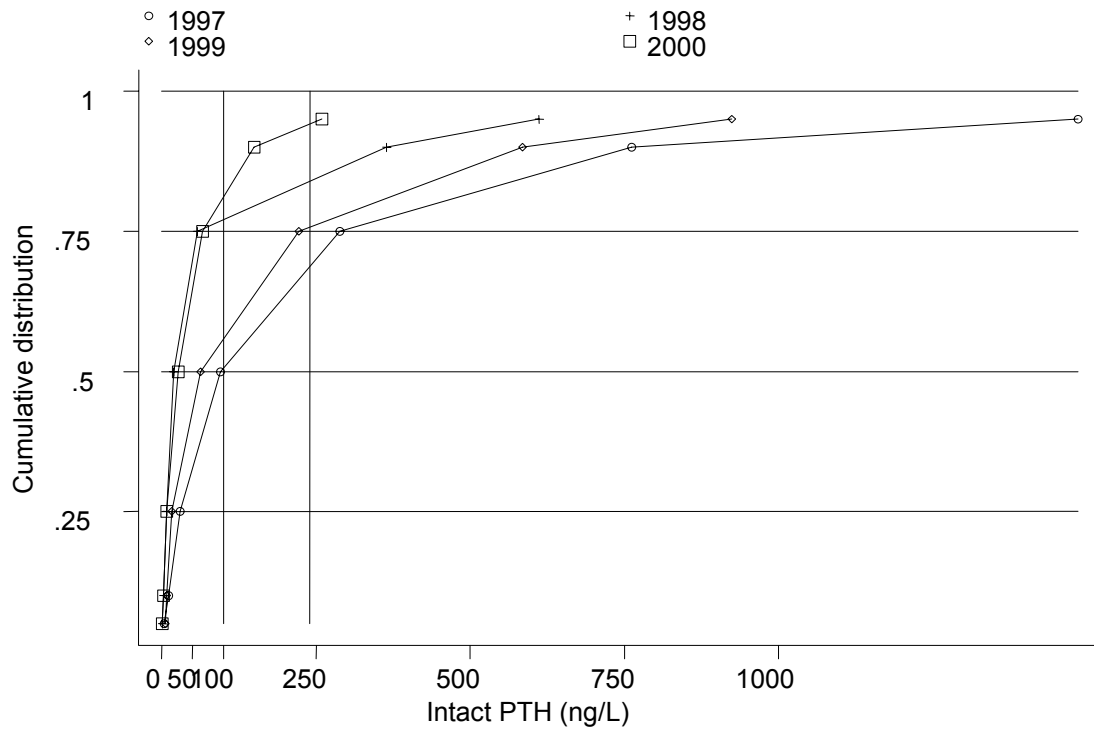


Table 3.2.31: Distribution of serum iPTH (ng/L), HD patients, NGO Centres 1997 – 2000

year	No of subjects	No of observations	median	LQ	UQ	% patients ≥ 100 & ≤ 250 ng/l
1997	249	369	95	30	289	18
1998	166	173	20	8	58.4	6
1999	263	299	62.7	16.4	223	19
2000	627	836	27.2	8.4	66	10

Figure 3.2.31: Cumulative distribution of serum iPTH by year



3.2.11 MANAGEMENT OF BLOOD PRESSURE, NGO CENTRES

Table 3.2.32: Treatment for hypertension, HD patients, NGO Centres 1997 - 2000

Year	No.	% on anti-hypertensives	% on 1 anti-hypertensives	% on 2 anti-hypertensives	% on 3 anti-hypertensives
1997	330	59	30	20	9
1998	422	62	34	21	7
1999	719	69	38	22	9
2000	1543	67	39	22	7

Table 3.2.33: Distribution of Systolic BP without anti-hypertensives, HD patients, NGO Centres 1997 – 2000

year	No of subjects	No of observations	median	LQ	UQ	% patients < 160 mmHg
1997	125	1042	134	120	150	84
1998	157	1603	140	125	157	77
1999	223	2285	142	125	160	74
2000	501	5041	140	123	160	75

Figure 3.2.33: Cumulative distribution of Systolic BP without anti-hypertensives by year

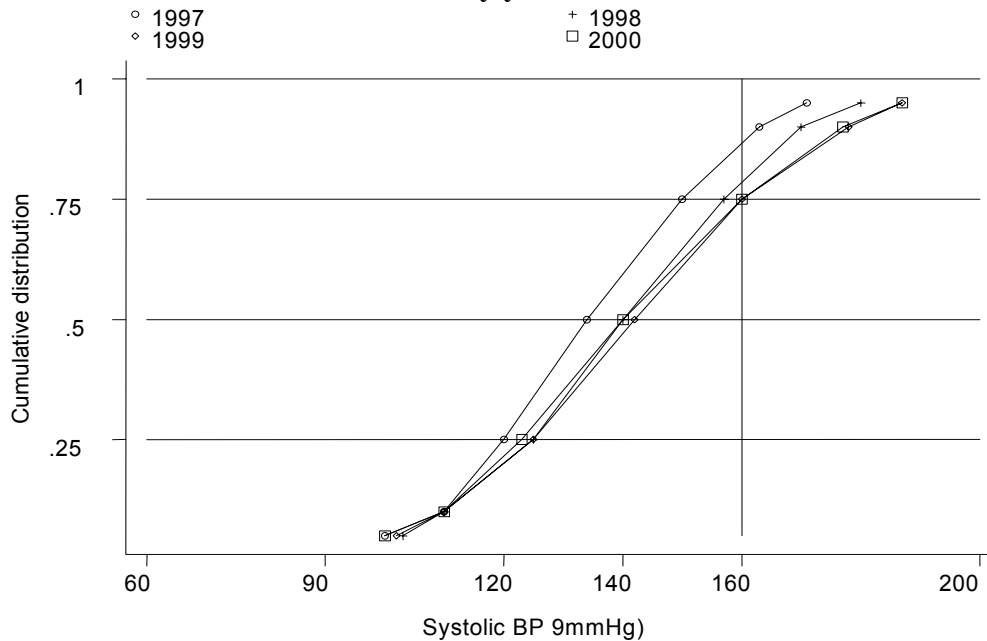


Table 3.2.34: Distribution of Diastolic BP without anti-hypertensives, HD patients, NGO Centres 1997 – 2000

Year	No of subjects	No of observations	median	LQ	UQ	% patients < 90 mmHg
1997	126	1042	80	70	90	71
1998	157	1604	80	70	90	74
1999	223	2282	80	70	90	72
2000	501	5039	80	70	88	77

Figure 3.2.34: Cumulative distribution of Diastolic BP without anti-hypertensives by year

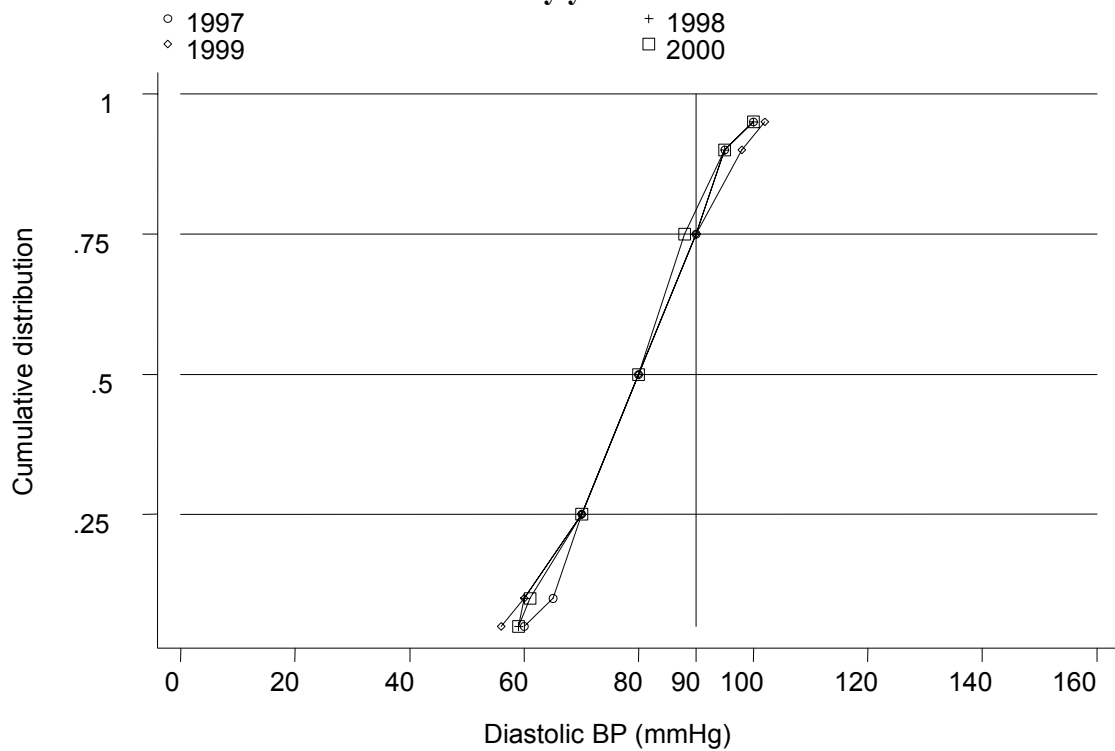


Table 3.2.35: Distribution of systolic BP on anti-hypertensives, HD patients, NGO Centres 1997 – 2000

Year	No of subjects	No of observations	median	LQ	UQ	% patients < 160 mmHg
1997	193	1534	152	140	170	55
1998	253	2457	158	140	174	52
1999	493	4811	160	142	179	49
2000	1004	9927	153	140	172	55

Figure 3.2.35: Cumulative distribution of systolic BP on anti-hypertensives by year

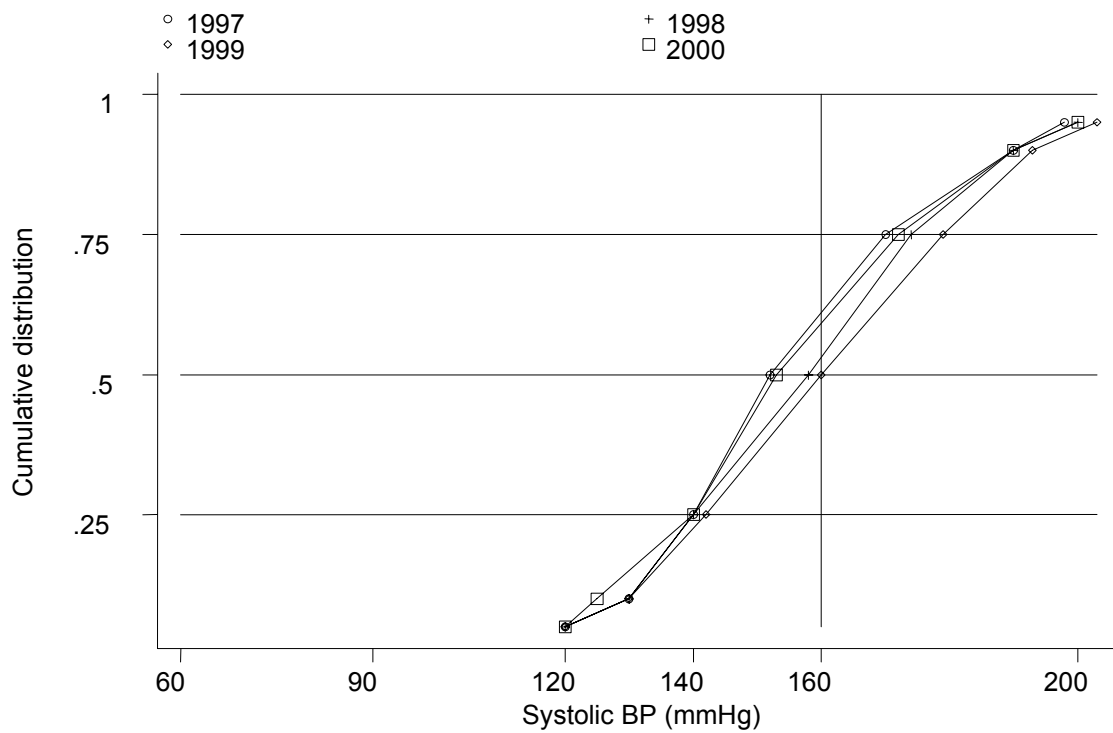
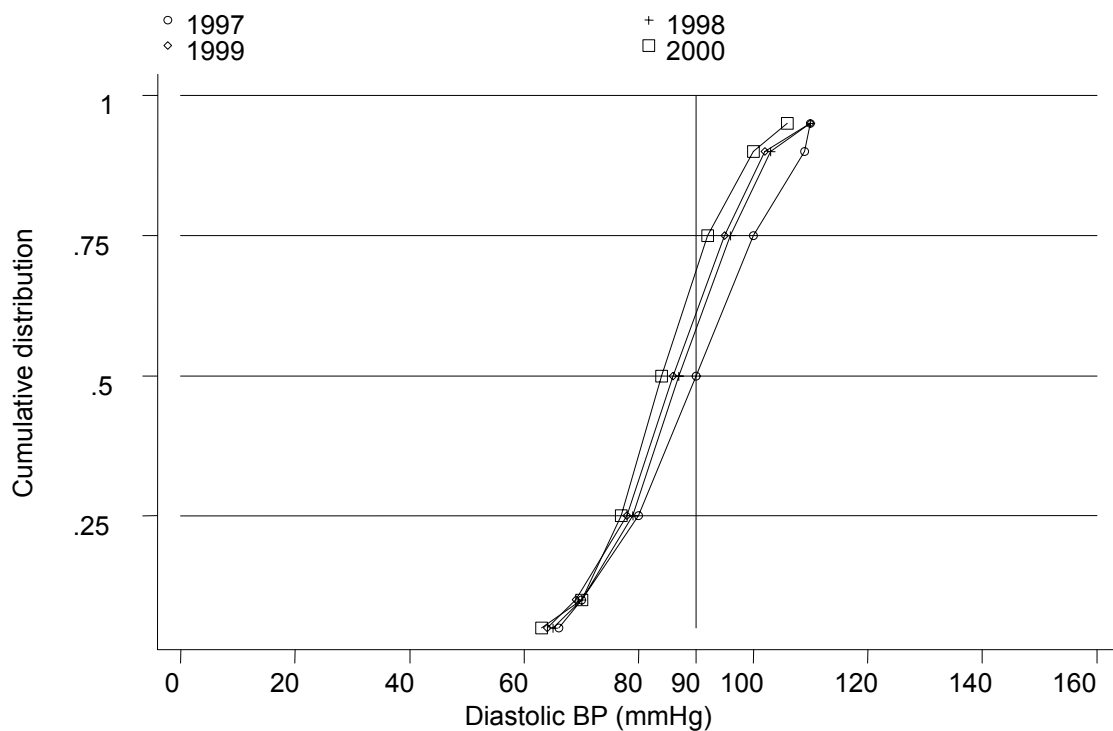


Table 3.2.36: Distribution of diastolic BP on anti-hypertensives, HD patients, NGO Centres 1997 – 2000

year	No of subjects	No of observations	median	LQ	UQ	% patients < 90 mmHg
1997	193	1534	90	80	100	44
1998	253	2459	87	79	96	55
1999	493	4816	86	78	95	57
2000	1003	9910	84	77	92	59

Figure 3.2.36: Cumulative distribution of diastolic BP on anti-hypertensives by year



3.2.12 TREATMENT OF ANAEMIA, NGO HD CENTRES

**Table 3.2.37: Treatment for Anaemia, HD patients, NGO Centres
1997 - 2000**

year	No	% on rHuEpo	% received blood transfusion	% received oral iron	% received parenteral iron
1997	330	51	9	88	1
1998	422	50	7	92	1
1999	719	54	9	87	1
2000	1543	56	12	88	3

**Table 3.2.38: Distribution of rHuEpo dose per week, HD patients,
NGO Centres 1997 - 2000**

Year	1997	1998	1999	2000
No. of patients	163	201	370	819
% on 2000 u/week	55	63	69	58
% on 2-4000 u/week	39	32	26	37
% on 4-6000 u/week	2	3	4	3
% on 6-8000 u/week	1	2	1	0
% on 8-12000 u/week	1	0	1	0
% on >12000 u/week	1	0	0	0

Table 3.2.39: Distribution of serum Iron without rHuEpo, HD patients, NGO Centres 1997 – 2000

Year	No of subjects	No of observations	median	LQ	UQ	% patients > 10 umol/l
1997	140	252	15.1	10.7	19.6	79
1998	25	64	14.5	9	21.8	67
1999	28	72	14	10.6	17	81
2000	200	327	15.5	10.2	25.9	76

Figure 3.2.39: Cumulative distribution of serum Iron without rHuEpo by year

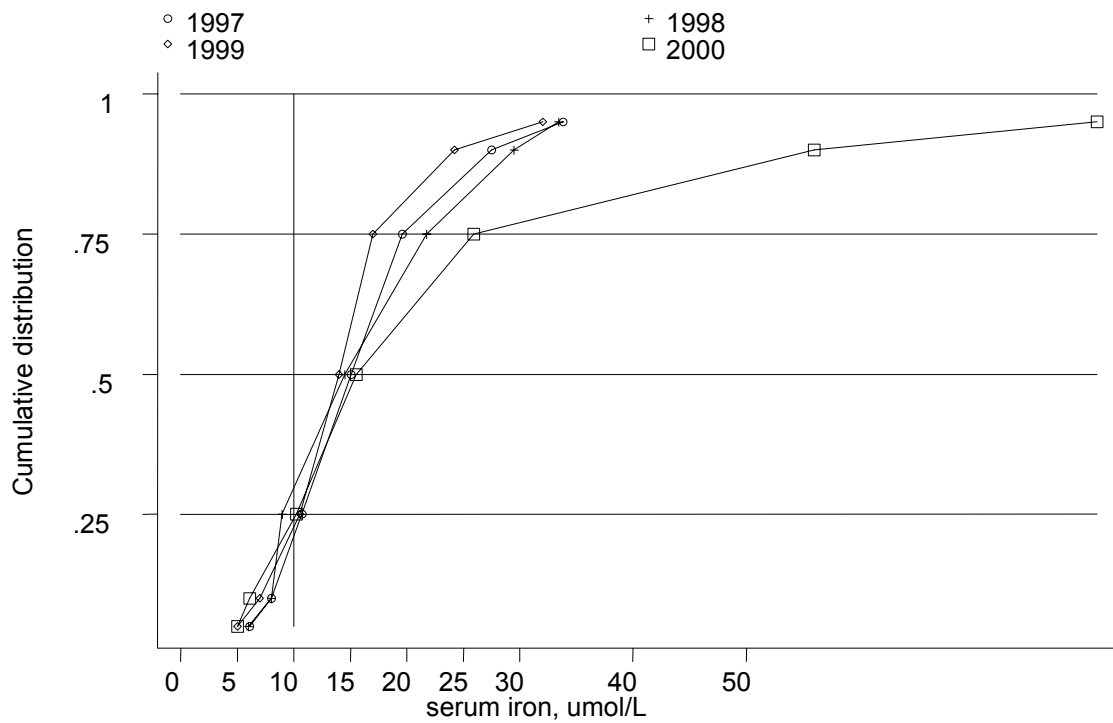


Table 3.2.40: Distribution of serum Iron on rHuEpo,HD patients, NGO Centres 1997 - 2000

Year	No of subjects	No of observations	median	LQ	UQ	% patients > 10 umol/l
1997	6	13	10.6	9.7	12.2	54
1998	6	11	12	11	15	82
1999	74	99	12.4	9.1	18.3	67
2000	63	87	12.7	9.1	19.5	67

Figure 3.2.40: Cumulative distribution of serum Iron on rHuEpo by year

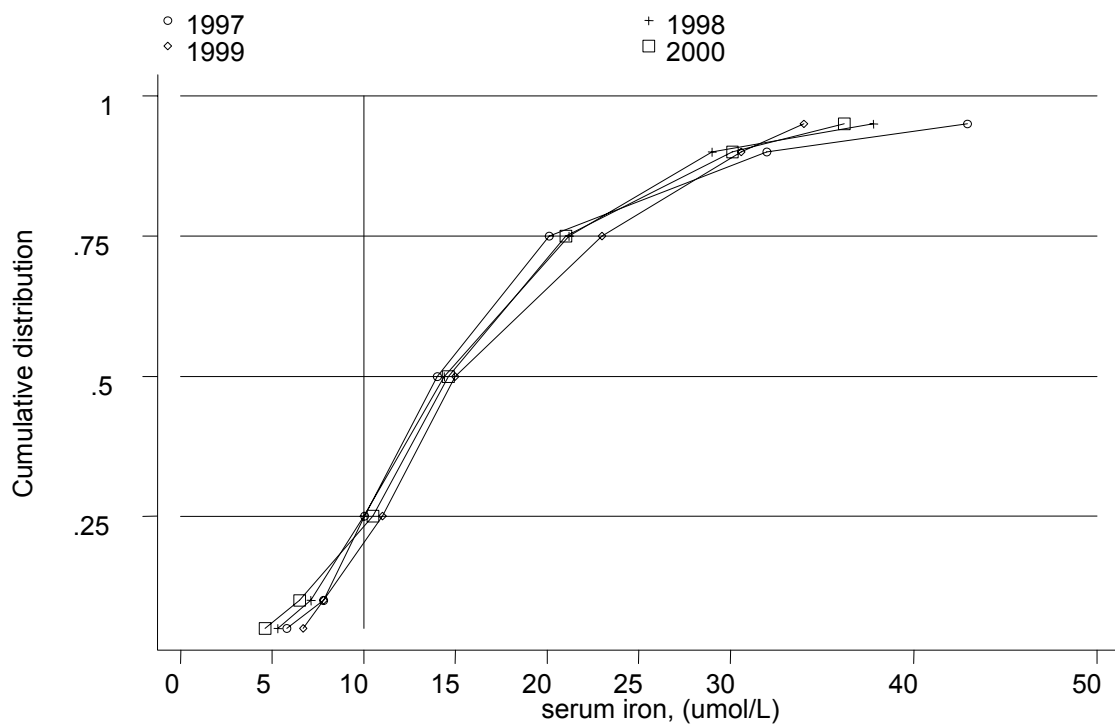


Table 3.2.41: Distribution of serum Transferrin Saturation without rHuEpo, HD patients, NGO Centres 1997 – 2000

Year	No of subjects	No of observations	median	LQ	UQ	% patients > 20%
1997	116	464	30.5	21.4	42.7	79
1998	20	80	24.6	19.4	32	75
1999	20	80	27.7	21.3	39.4	80
2000	143	572	27.6	17.9	44.6	71

Figure 3.2.41: Cumulative distribution of serum Transferrin Saturation without rHuEpo by year

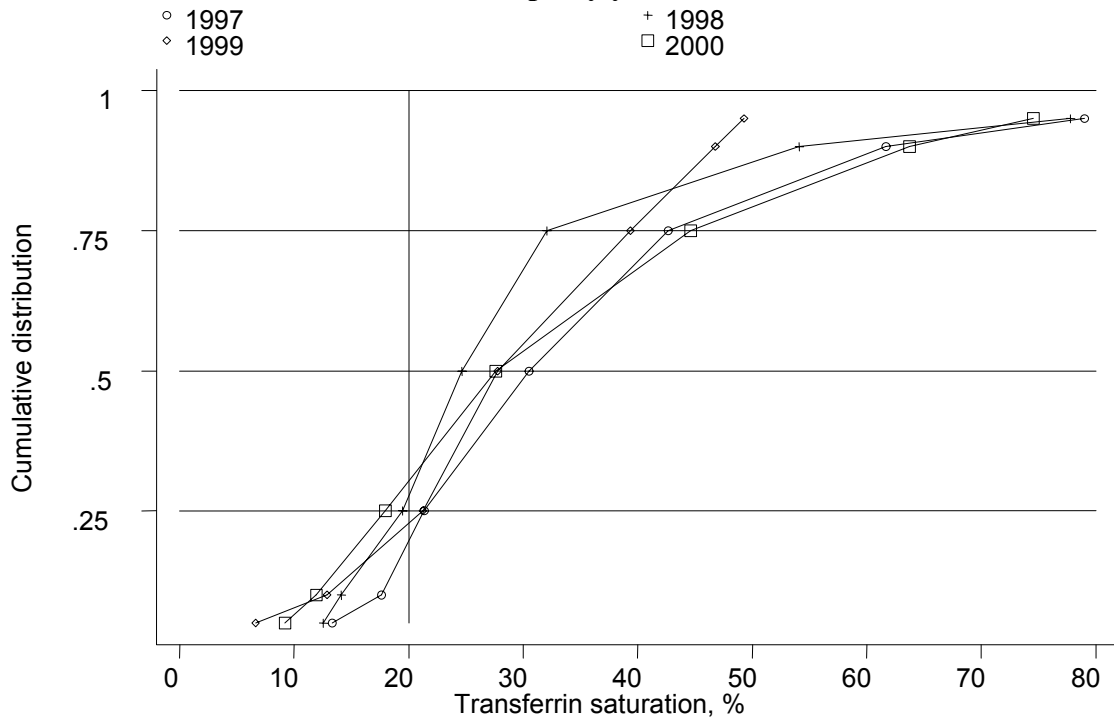


Table 3.2.42: Distribution of serum Transferrin Saturation on rHuEpo, HD patients, NGO Centres 1997 - 2000

Year	No of subjects	No of observations	median	LQ	UQ	% patients > 20%
1997	133	532	32.2	25.7	42.5	87
1998	22	88	18.1	13.2	35	45
1999	27	108	31.1	18.6	42.1	74
2000	291	1164	30.5	21	45.1	77

Figure 3.2.42: Cumulative distribution of serum Transferrin Saturation on on rHuEpo by year

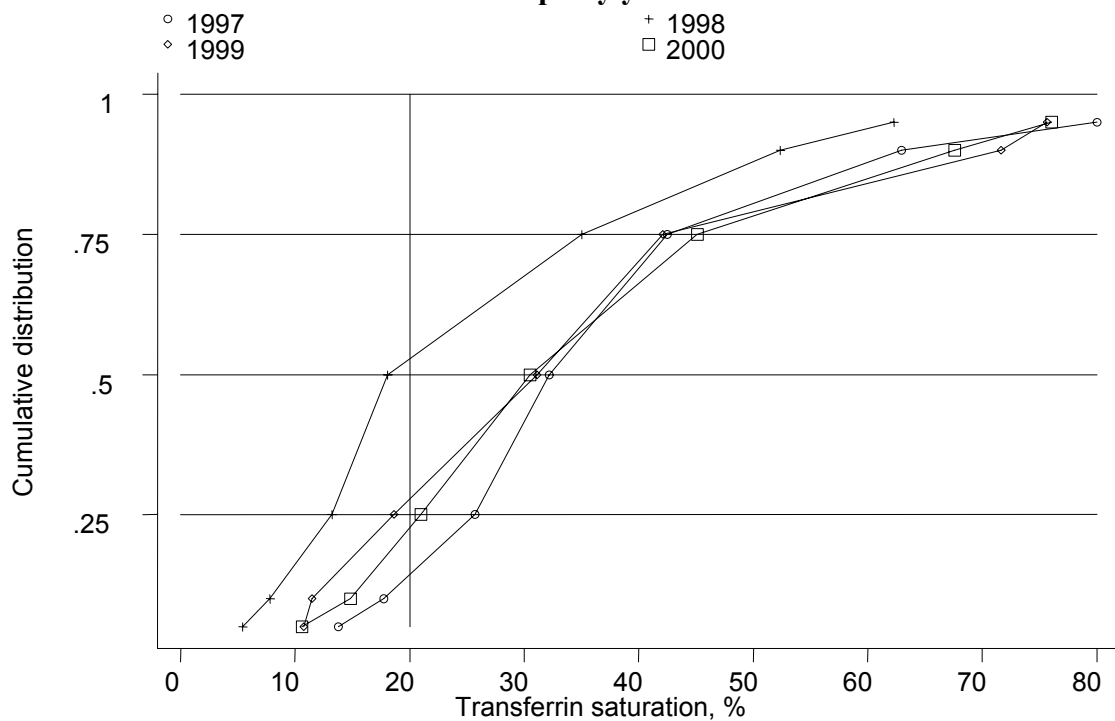


Table 3.2.43: Distribution of serum Ferritin without rHuEpo, HD patients, NGO Centres 1997 – 2000

year	No of subjects	No of observations	median	LQ	UQ	% patients > 100 ug/l
1997	127	198	438.5	157	907	86
1998	27	46	514.5	222.6	842	91
1999	22	35	520	200	782	86
2000	166	219	423	181	874	88

Figure 3.2.43: Cumulative distribution of serum Ferritin without rHuEpo by year

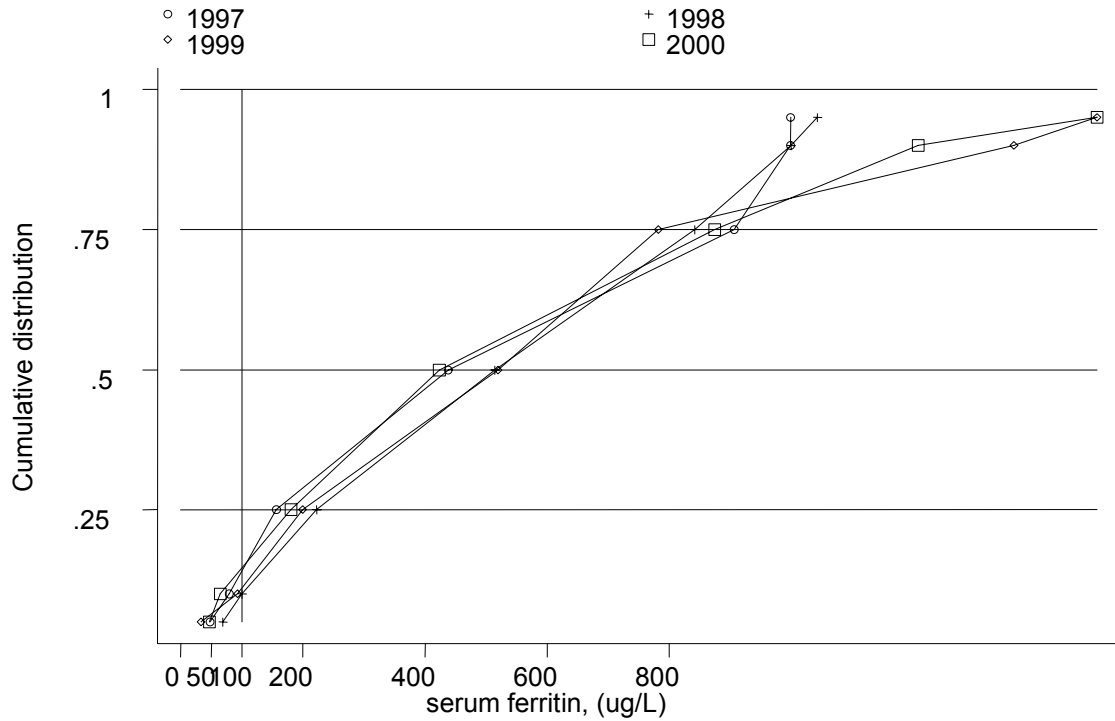


Table 3.2.44: Distribution of serum Ferritin on rHuEpo, HD patients, NGO Centres 1997 – 2000

year	No of subjects	No of observations	median	LQ	UQ	% patients > 100 ug/l
1997	147	216	630.5	270.5	999	90
1998	26	44	377.8	232	989	93
1999	33	53	406	217	1000	94
2000	364	516	499.5	238	975	91

Figure 3.2.44: Cumulative distribution of serum Ferritin on rHuEpo by year

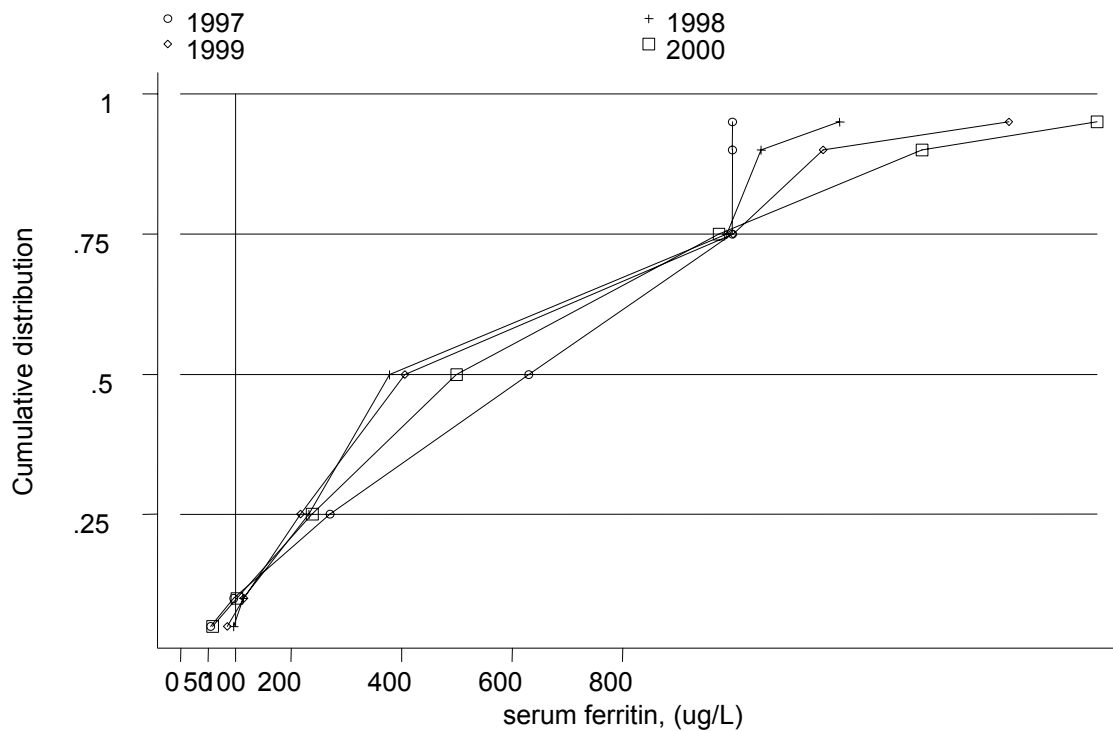


Table 3.2.45: Distribution of Haemoglobin without rHuEpo, HD patients, NGO Centres 1997 – 2000

year	No of subjects	No of observations	median	LQ	UQ	% patients <10 g/dl	% patients ≥ 10 & ≤ 12 g/dl	% patients >12 g/dl
1997	158	472	9.1	7.9	10.8	65	23	12
1998	198	552	8.8	7.5	10.1	71	19	10
1999	313	825	9.1	7.9	10.3	67	25	8
2000	582	1475	9.1	7.9	10.8	63	24	13

Figure 3.2.45: Cumulative Distribution of Haemoglobin without rHuEpo by year

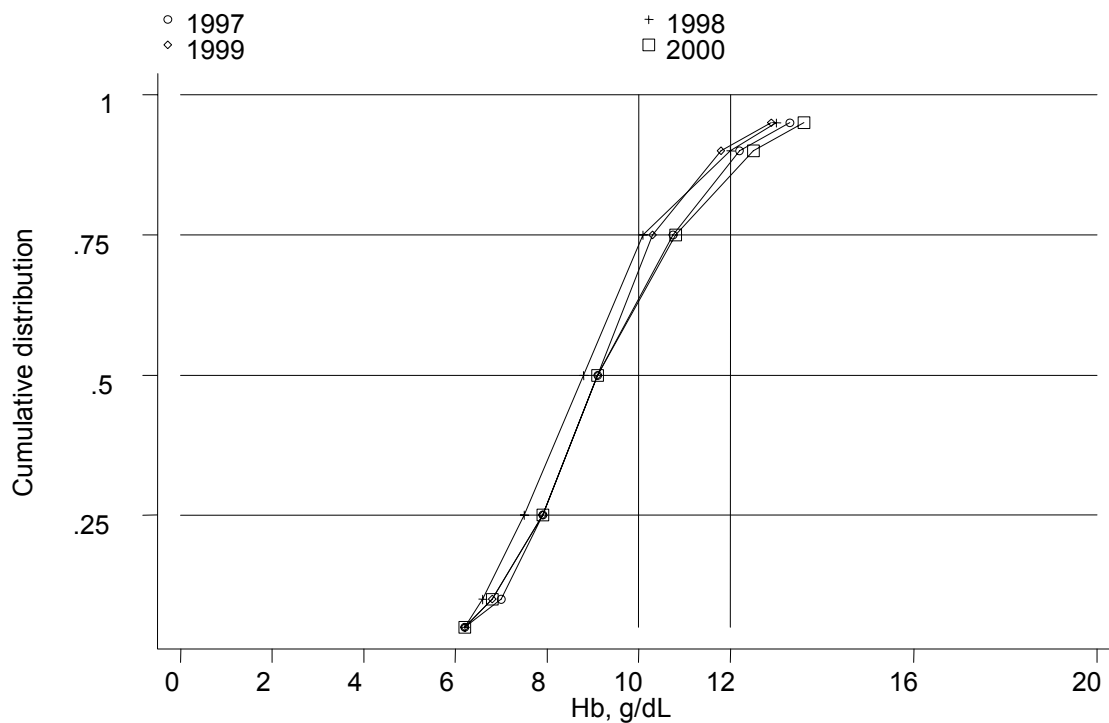
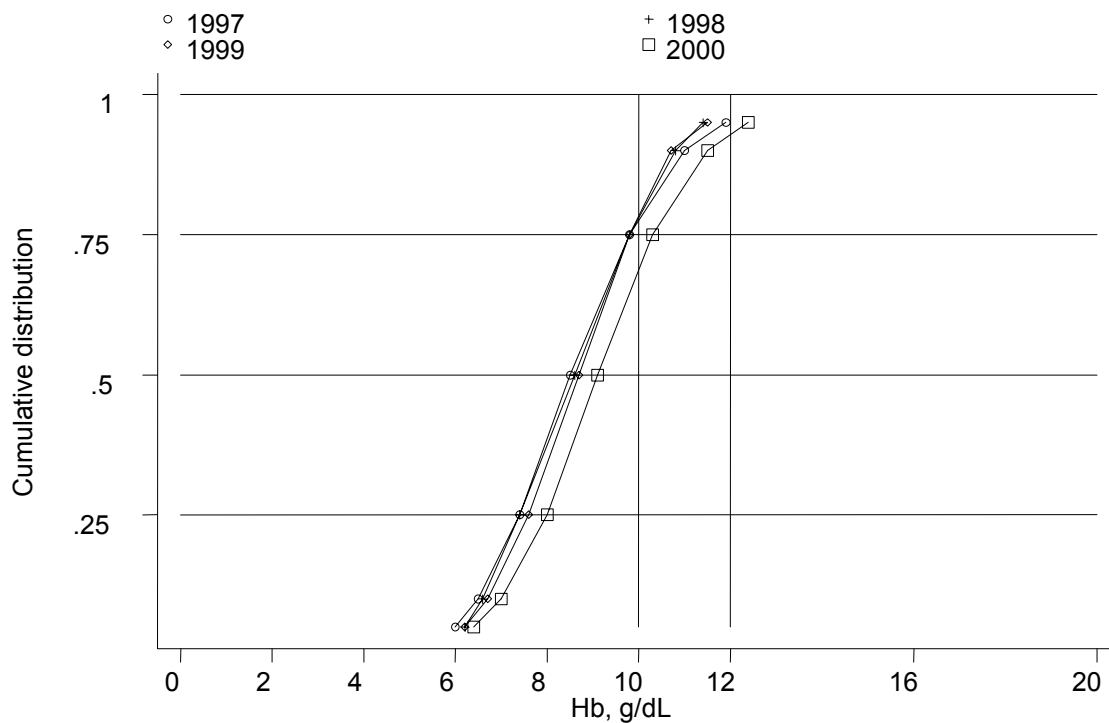


Table 3.2.46: Distribution of Haemoglobin on rHuEpo, HD patients, NGO Centres 1997 - 2000

Year	No of subjects	No of observations	median	LQ	UQ	% patients <10 g/dl	% patients ≥ 10 & ≤ 12 g/dl	% patients >12 g/dl
1997	166	519	8.5	7.4	9.8	77	19	3
1998	202	575	8.6	7.4	9.8	79	18	3
1999	375	1091	8.7	7.6	9.8	77	21	3
2000	764	2173	9.1	8	10.3	68	26	6

Figure 3.2.46: Cumulative distribution of Haemoglobin on rHuEpo by year

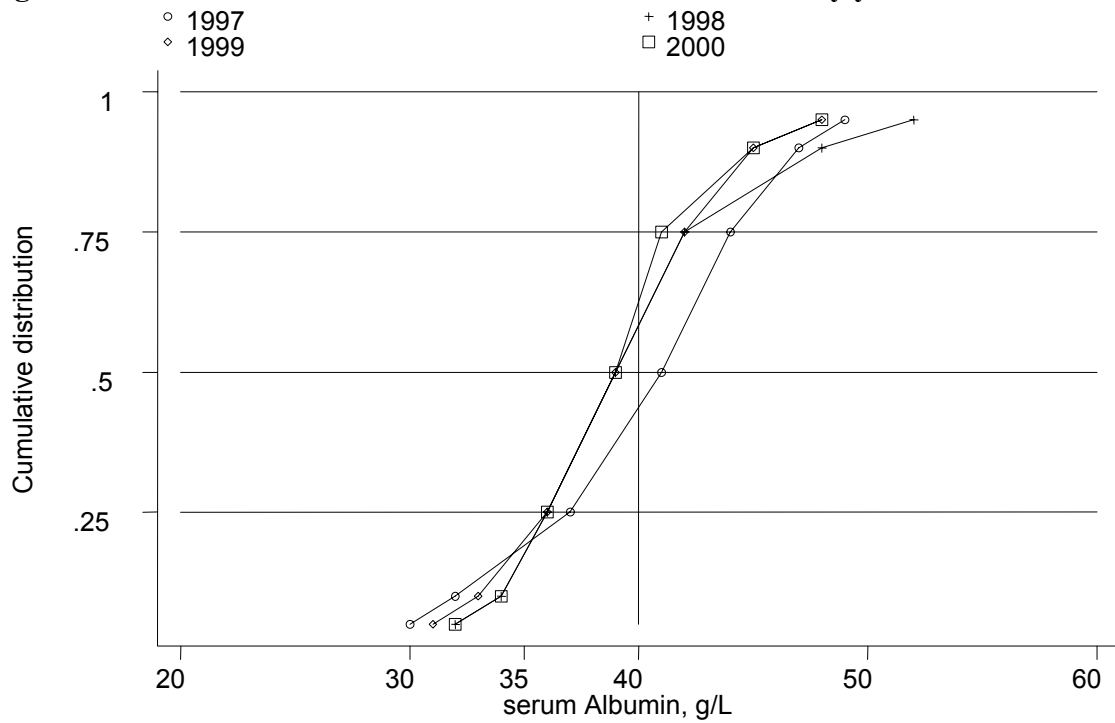


3.2.13 NUTRITIONAL STATUS OF HD PATIENTS, NGO CENTRES

Table 3.2.47: Distribution of serum Albumin (g/L), HD patients, NGO Centres 1997 – 2000

year	No of subjects	No of observations	median	LQ	UQ	% patients >40g/l
1997	320	958	41	37	44	58
1998	392	1023	39	36	42	46
1999	638	1419	39	36	42	42
2000	1237	3337	39	36	41	39

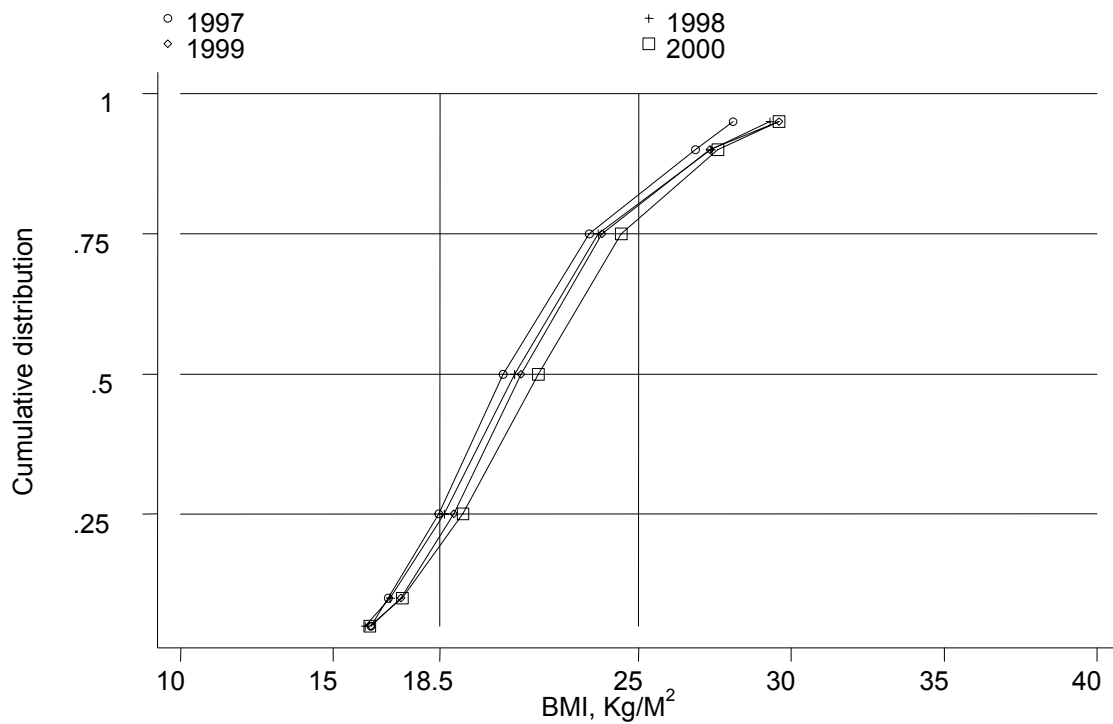
Figure 3.2.47: Cumulative distribution of serum Albumin by year



**Table 3.2.48: Distribution of Body Mass Index
HD patients, NGO Centres 1997 - 2000**

Year	No of subjects	No of observations	median	LQ	UQ	% patients <18.5	% patients ≥ 18.5 & ≤ 25	% patients >25
1997	255	2175	20.6	18.5	23.4	25	57	18
1998	315	3145	20.9	18.6	23.7	24	59	17
1999	592	5781	21.1	18.9	23.8	20	63	18
2000	1201	11875	21.7	19.3	24.4	19	59	22

Figure 3.2.48: Cumulative distribution of BMI by year



3.2.14 SEROLOGICAL STATUS, HD PATIENTS , NGO CENTRES

Table 3.2.49: Prevalence of positive anti-HCV and HBsAg HD patients, NGO Centres 1997 – 2000

Year	No	% HBsAg positive	% anti-HCV positive
1997	330	9	22
1998	422	9	23
1999	719	8	18
2000	1543	6	20

Figure 3.2.49: Prevalence of positive anti-HCV and HBsAg HD patients, NGO Centres 1997 – 2000

