

# **DIALYSIS IN MALAYSIA**

Dialysis Treatment Provision

Patient Demographics

Method and Location

Primary Renal Disease

Death on Dialysis

## 2. DIALYSIS IN MALAYSIA

### 2.1 DIALYSIS TREATMENT PROVISION

**Table 2.01: Stock and flow – Dialysis Patients 1993 – 2000**

Year	1993	1994	1995	1996	1997	1998	1999	2000
New Dialysis patients	335	508	667	927	1112	1203	1466	1617
Died	102	145	178	220	301	364	463	524
Transplanted	36	45	37	56	58	60	66	91
Lost to Follow-up	3	2	10	9	12	13	10	17
Dialysing at 31st December	1382	1722	2191	2858	3623	4418	5370	6368

**Table 2.02: Dialysis Treatment Rate per million population 1993 – 2000**

Year	1993	1994	1995	1996	1997	1998	1999	2000
Acceptance rate	17	26	32	44	51	54	65	70
Prevalence rate	72	88	106	135	167	199	236	274

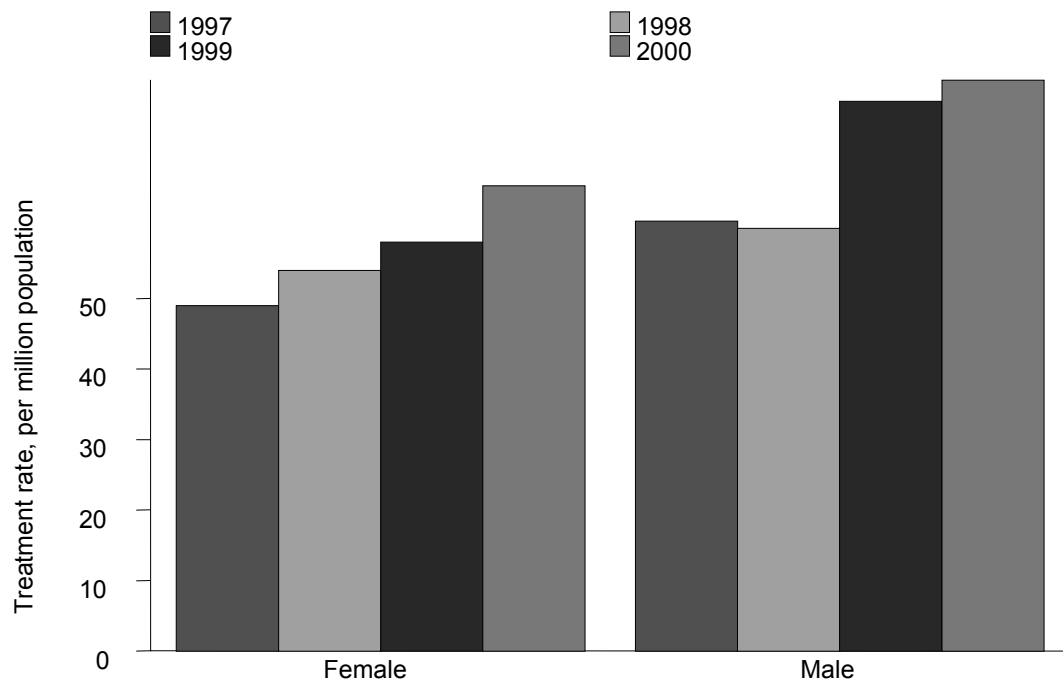
**Table 2.03: Dialysis Treatment Rate by State, per million state population 2000**

State	Acceptance rate
Johor Darul Takzim	116
Negeri Sembilan Darul Khusus	111
Selangor & W.Persekutuan	106
Negeri Melaka	99
Perak Darul Redzuan	97
Pulau Pinang	91
Kedah & Perlis	59
Sarawak	49
Pahang Darul Makmur	41
Trengganu Darul Iman	36
Kelantan Darul Naim	29
Sabah	25

**Table 2.04: Dialysis Treatment Rate by Gender, per million male or female population 1997– 2000**

Gender	1997	1998	1999	2000
Male	61	60	78	81
Female	49	54	58	66

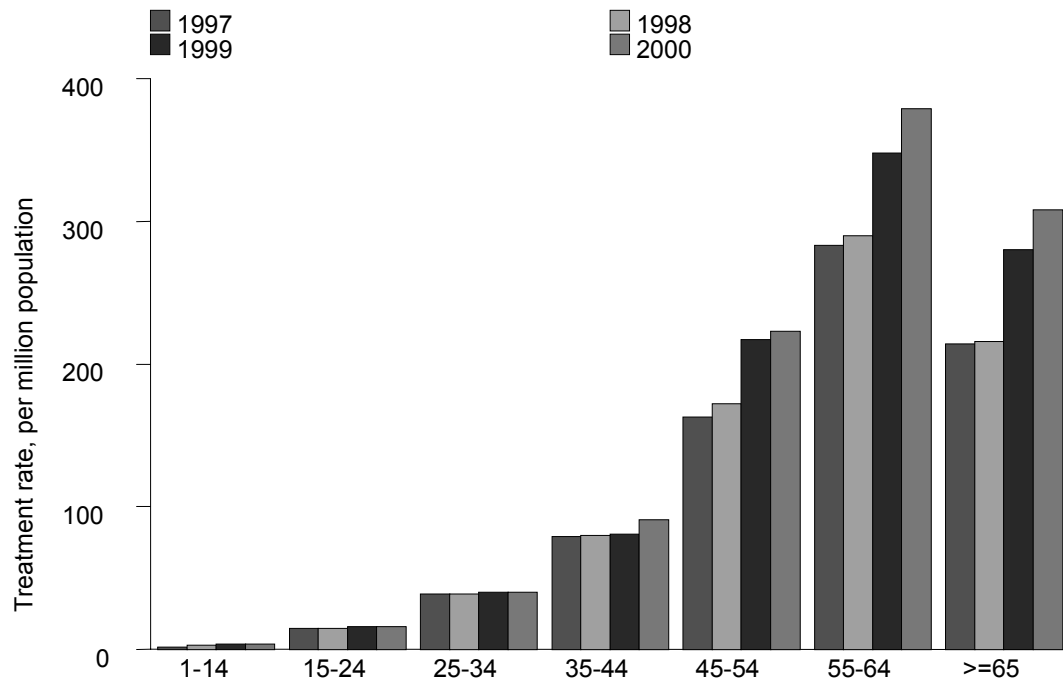
**Figure 2.04: Dialysis Treatment by Gender 1997 - 2000**



**Table 2.05: Dialysis Treatment Rate by Age Group, per million age group population 1997 – 2000**

Age groups (years)	1997	1998	1999	2000
1-14	2	3	4	4
15-24	15	15	16	16
25-34	39	39	40	40
35-44	79	80	81	91
45-54	163	172	217	223
55-64	283	290	348	379
≥ 65	214	216	280	308

**Figure 2.05: Dialysis Acceptance Rate by Age Group 1997 - 2000**

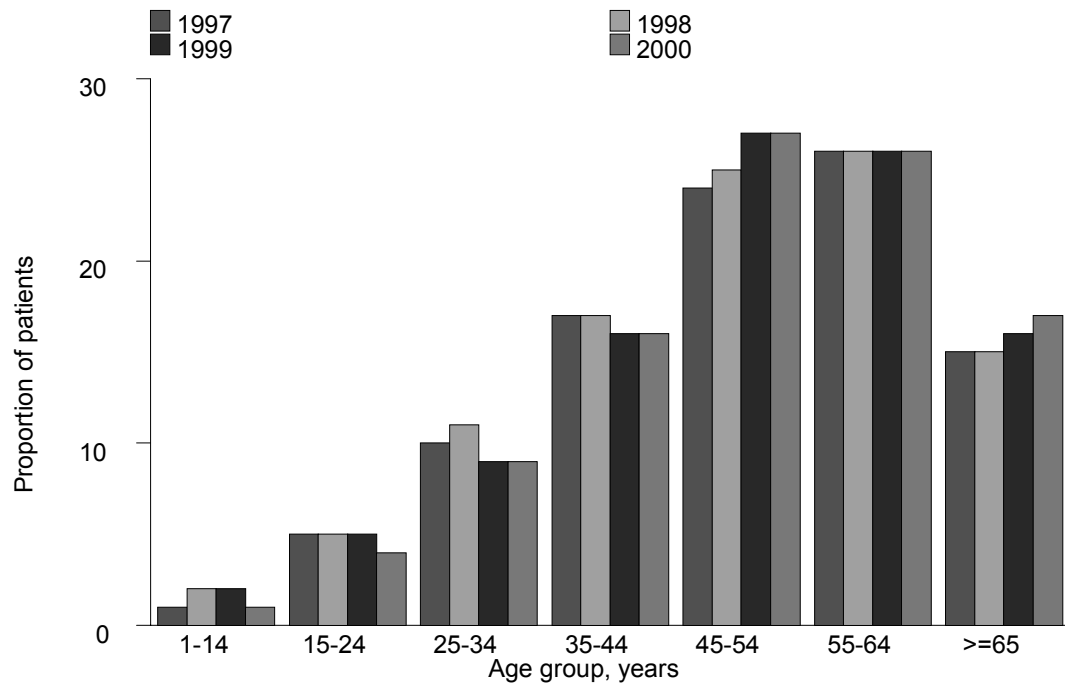


## 2.2 PATIENT DEMOGRAPHICS

**Table 2.06: Percentage Age Distribution of Dialysis Patients 1997 – 2000**

Year	1997	1998	1999	2000
New dialysis patients	1112	1203	1466	1617
% 1-14 years	1	2	2	1
% 15-24 years	5	5	5	4
% 25-34 years	10	11	9	9
% 35-44 years	17	17	16	16
% 45-54 years	24	25	27	27
% 55-64 years	26	26	26	26
% ≥ 65 years	15	15	16	17
Dialysing at 31 <sup>st</sup> December	3623	4418	5370	6368
% 1-14 years	2	2	2	1
% 15-24 years	5	5	5	5
% 25-34 years	17	16	15	14
% 35-44 years	23	23	21	21
% 45-54 years	24	24	25	25
% 55-64 years	20	21	21	22
% ≥65 years	9	10	11	12

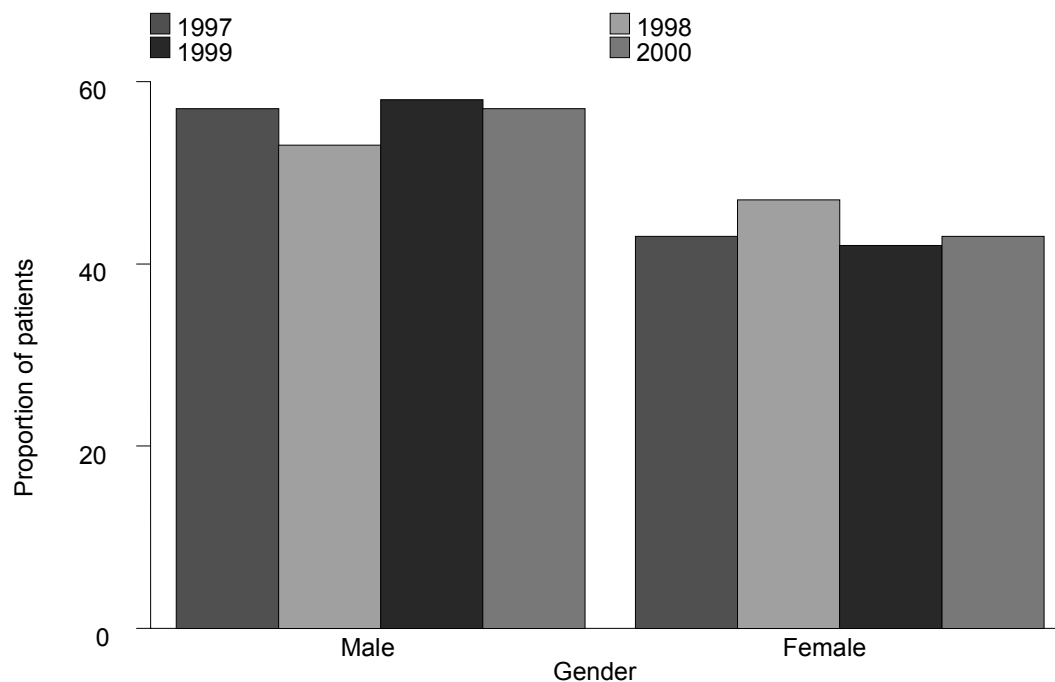
**Figure 2.06: Age Distribution of New Dialysis patients 1997 – 2000**



**Table 2.07: Gender distribution of Dialysis Patients 1997 – 2000**

Year	1997	1998	1999	2000
New Dialysis patients	1112	1203	1466	1617
% Male	57	53	58	57
% Female	43	47	42	43
Dialysing at 31st December	3623	4418	5370	6368
% Male	57	56	56	56
% Female	43	44	44	44

**Figure 2.07: Gender Distribution of New Dialysis patients 1997 – 2000**

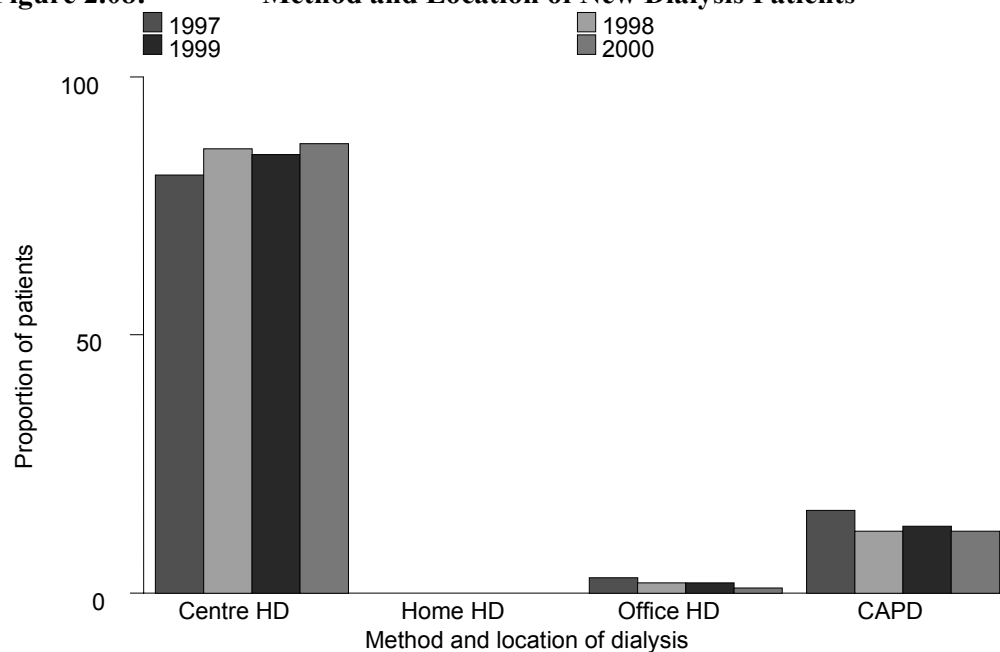


### 2.3 METHOD AND LOCATION

**Table 2.08: Method and Location of Dialysis**

Year	1997	1998	1999	2000
New Dialysis patients	1112	1203	1466	1617
% Centre HD	81	86	85	87
% Home HD	0	0	0	0
% Office HD	3	2	2	1
% CAPD	16	12	13	12
Dialysing at 31st December	3623	4418	5370	6368
% Centre HD	78	81	84	85
% Home HD	3	2	2	1
% Office HD	6	5	4	3
% CAPD	14	12	11	10

**Figure 2.08: Method and Location of New Dialysis Patients**





## 2.4 PRIMARY RENAL DISEASE

**Table 2.09: Primary Renal Disease 1997 – 2000**

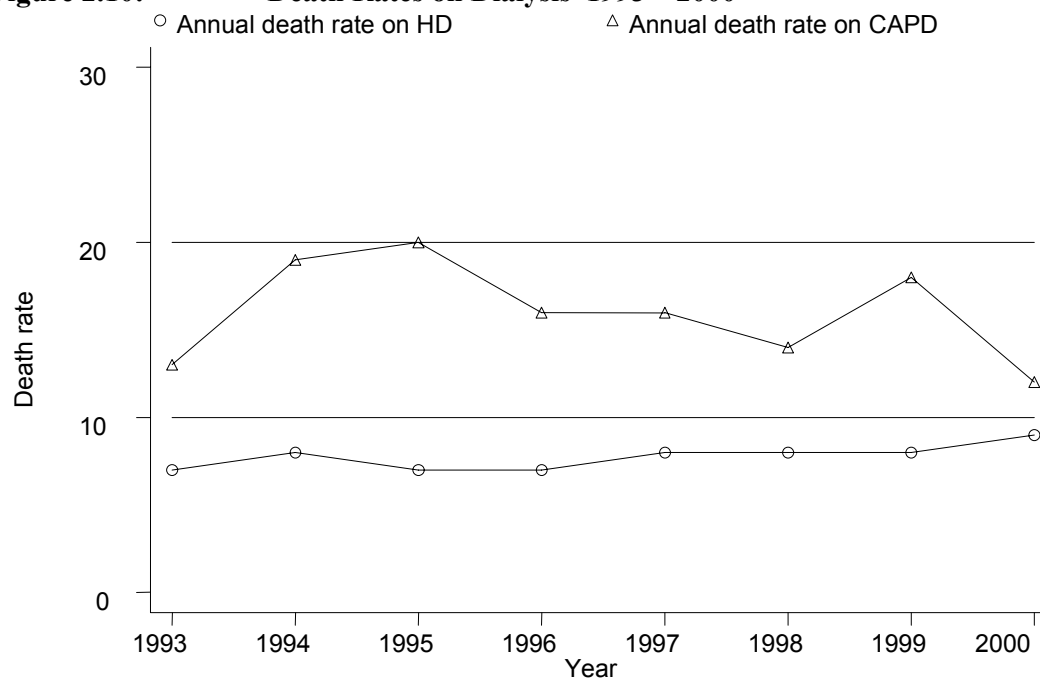
Year	1997	1998	1999	2000
New Dialysis patients	1112	1203	1466	1617
% Unknown cause	34	33	30	29
% Diabetic Nephropathy	36	40	40	44
% Glomerulonephritis	14	12	11	10
% Polycystic kidney	2	1	1	1
% Obstructive Uropathy	4	4	4	3
% Gouty Nephropathy	1	0	0	0
% Toxic Nephropathy	0	0	1	0
% Miscellaneous	9	9	12	13

## 2.5. DEATH ON DIALYSIS

**Table 2.10: Deaths on Dialysis 1993 – 2000**

Year	1993	1994	1995	1996	1997	1998	1999	2000
No. of dialysis patients at risk	1275	1552	1957	2525	3241	4021	4894	5869
Dialysis deaths	102	145	178	220	301	364	463	524
Dialysis death rate %	8	9	9	9	9	9	9	9
No. of HD patients at risk	1098	1334	1671	2142	2774	3510	4343	5261
HD deaths	79	103	120	159	228	290	365	453
HD death rate %	7	8	7	7	8	8	8	9
No. of CAPD patients at risk	177	218	286	383	467	511	552	608
CAPD deaths	23	42	58	61	73	74	98	71
CAPD death rate %	13	19	20	16	16	14	18	12

**Figure 2.10: Death Rates on Dialysis 1993 – 2000**



**Table 2.11: Causes of Death on Dialysis 1997 - 2000**

Year	1997		1998		1999		2000	
	No.	%	No.	%	No.	%	No.	%
Cardiovascular	83	28	121	33	149	32	182	35
Died at home	53	18	61	17	105	23	122	23
Sepsis	55	18	60	16	71	15	84	16
CAPD peritonitis	4	1	1	0	7	2	9	2
GIT bleed	2	1	8	2	13	3	10	2
Cancer	9	3	8	2	6	1	9	2
Liver disease	3	1	2	1	8	2	6	1
Others	62	21	78	21	86	19	97	19
Unknown	30	10	25	7	18	4	5	1
Total	301	100	364	100	463	100	524	100