



 **HEALTHY PEOPLE**
2010

HP2010 Objective 4.1: Reduce the rate of new cases of end-stage renal disease

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
0-4	142	172	158	175	168	187	204	193	191	195
5-9	158	135	120	139	172	157	152	146	145	170
10-14	246	238	231	244	265	287	285	290	280	317
15-19	528	462	494	526	564	572	597	543	552	610
20-24	899	922	1,002	979	1,093	1,054	1,034	963	1,023	936
25-29	1,538	1,559	1,567	1,651	1,932	1,668	1,670	1,689	1,725	1,669
30-34	2,077	2,142	2,229	2,313	2,768	2,551	2,457	2,407	2,457	2,419
35-39	2,425	2,603	2,859	2,838	3,628	3,371	3,345	3,348	3,357	3,428
40-44	2,844	3,175	3,382	3,381	4,090	4,149	4,310	4,260	4,562	4,554
45-49	2,888	3,313	3,644	3,949	4,946	4,995	5,270	5,387	5,816	5,991
50-54	3,376	3,610	4,159	4,365	5,693	5,553	5,707	6,299	6,875	7,387
55-59	4,296	4,655	5,061	5,236	6,659	6,546	6,731	7,306	7,901	8,297
60-64	5,614	6,257	6,582	6,800	8,112	8,197	8,314	8,835	9,324	9,339
65-69	7,019	7,877	8,448	8,745	9,821	9,415	9,795	10,714	10,753	10,682
70-74	6,008	7,203	7,992	8,411	9,610	9,462	10,183	11,275	11,350	11,489
75-79	4,456	5,348	5,933	6,211	7,211	7,268	8,023	9,299	9,932	10,662
80-84	2,330	2,738	3,206	3,382	4,010	4,202	4,733	5,735	6,031	6,487
85+	931	1,101	1,263	1,464	1,645	1,809	2,135	2,623	3,069	3,459
Male	25,830	28,683	30,912	32,397	37,898	37,605	40,027	43,157	45,272	46,986
Female	21,945	24,827	27,418	28,412	34,489	33,838	34,918	38,155	40,071	41,105
White	31,169	34,779	37,505	38,252	43,791	43,740	45,639	51,643	53,752	56,525
Black	14,350	16,151	17,679	18,805	22,055	22,520	23,675	24,374	25,785	25,937
Native American	651	724	876	832	993	1,180	1,328	959	1,385	1,090
Asian	1,227	1,365	1,567	1,815	2,298	2,488	2,649	2,611	2,952	2,970
Other/unknown	378	491	703	1,105	3,250	1,515	1,654	1,725	1,469	1,569
Hispanic	1,611	1,969	2,417	2,960	3,143	6,535	7,872	8,076	8,872	9,009
Non-Hispanic	46,164	51,541	55,913	57,849	69,244	64,908	67,073	73,236	76,471	79,082
Diabetes	16,093	18,890	20,940	21,006	25,594	28,464	31,560	34,925	36,941	38,160
Hypertension	13,762	15,775	17,554	16,819	20,229	18,131	19,189	21,260	22,316	23,133
Glomerulonephritis	5,840	6,168	6,448	6,389	7,347	7,554	8,011	8,100	8,243	8,038
Cystic kidney	1,424	1,507	1,602	1,551	1,762	1,850	1,826	1,933	2,104	2,096
Other urologic	817	1,118	1,158	1,034	1,169	1,306	1,502	1,476	1,525	1,590
Other cause	4,733	4,965	5,273	5,221	6,351	7,905	8,341	8,909	9,415	9,675
Unknown cause	1,947	2,355	2,611	2,323	2,625	2,609	2,939	3,145	3,408	3,356
Missing disease	3,159	2,732	2,744	6,466	7,310	3,624	1,577	1,564	1,391	2,043
U.S.	47,150	52,870	57,429	59,437	67,265	70,978	74,763	81,149	85,145	87,794
Presumed U.S.	625	640	901	1,372	5,122	465	182	163	198	297
Puerto Rico	552	629	730	687	851	851	950	973	1,045	1,109
Other non-U.S.	23	26	37	22	33	41	49	56	50	52
All	48,350	54,165	59,097	61,518	73,271	72,335	75,944	82,341	86,438	89,252

Incident counts of ESRD patients

Table A.1.

Incident rates of ESRD patients

per million population, unadjusted

Table A.2.

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
0-4	7	9	8	9	8	9	10	9	9	10
5-9	9	7	6	7	9	8	7	7	7	8
10-14	14	13	12	12	13	15	14	14	14	16
15-19	29	26	28	28	30	30	30	26	27	30
20-24	46	47	51	50	54	56	56	52	55	49
25-29	71	74	76	81	92	85	85	86	89	88
30-34	93	95	98	101	114	113	111	113	118	118
35-39	120	125	133	127	150	147	144	144	145	148
40-44	157	167	176	171	191	200	200	194	204	199
45-49	206	232	233	242	277	279	278	283	302	303
50-54	293	306	338	334	405	395	399	403	427	437
55-59	407	440	475	477	573	575	575	605	623	630
60-64	526	587	624	652	770	798	810	857	890	870
65-69	695	782	842	864	961	931	974	1,076	1,106	1,116
70-74	747	871	938	968	1,083	1,061	1,145	1,272	1,278	1,298
75-79	724	851	924	952	1,079	1,073	1,151	1,301	1,365	1,444
80-84	591	677	773	788	907	928	1,026	1,222	1,269	1,339
85+	304	344	379	422	453	484	557	664	755	822
0-19	14	14	13	14	14	15	15	14	14	16
20-44	96	101	107	107	122	122	122	121	126	125
45-64	346	377	396	401	472	472	471	488	511	512
65-74	718	822	886	912	1,018	992	1,054	1,169	1,188	1,204
75+	586	679	748	774	873	883	966	1,118	1,182	1,254
Male	211	231	246	253	285	287	303	323	337	346
Female	170	190	207	211	247	246	251	272	285	290
White	149	165	176	178	202	201	208	233	241	252
Black	469	519	558	584	675	680	706	717	749	744
Other	195	208	233	243	292	314	330	286	338	307
Hispanic						209	244	240	266	260
Non-Hispanic						273	280	304	316	325
Diabetes	64	75	81	81	97	106	116	127	135	138
Hypertension	55	62	68	65	76	68	71	78	82	84
Glomerulonephritis	23	24	25	24	28	28	29	29	30	29
Cystic kidney	6	6	6	6	7	7	7	7	8	8
Other urologic	3	4	4	4	4	5	6	5	6	6
Other cause	19	20	21	20	24	30	31	33	34	35
Unknown cause	8	9	10	9	10	10	11	11	12	12
Missing disease	12	10	10	23	20	13	5	5	5	7
Crude rate	190	210	226	232	266	266	276	297	310	317

Incident rates by age, gender, race, ethnicity, & primary diagnosis

dialysis patients; rates by age are adjusted for gender & race; rates by gender are adjusted for age & race; rates by race & ethnicity are adjusted for age & gender; rates by primary diagnosis alone are adjusted for age, gender, & race; rates by primary diagnosis & race are adjusted for age & gender

See Figures 1.9–14 for graphs of these data.

	Figure 1.9				1.10		1.11					1.12		1.13			
	0-19	20-44	45-64	65+	Male	Female	White	Black	N Am	Asian	Hisp.	Non Hisp.	DM	HTN	GN	CK	
1990	10.0	90	384	733	235	158	140	614	493	231	85	194	66	58	23	5.7	
1991	9.8	94	419	842	258	177	155	686	530	248	105	215	77	66	25	6.0	
1992	10.0	99	448	915	274	192	165	736	646	267	131	230	84	71	25	6.3	
1993	9.8	98	455	951	280	194	166	768	595	295	160	232	82	67	24	6.0	
1994	11.2	113	542	1,059	316	229	191	873	671	360	170	270	98	79	28	6.6	
1995	11.7	113	548	1,056	316	228	189	872	777	382	350	260	108	70	28	6.7	
1996	11.7	113	551	1,159	332	232	195	912	857	391	411	266	117	72	29	6.4	
1997	10.9	111	570	1,283	353	249	217	928	605	367	402	287	128	79	29	6.7	
1998	11.0	114	596	1,344	365	258	222	963	859	397	445	295	134	81	29	7.0	
1999	11.8	111	590	1,385	371	260	230	946	648	381	431	300	135	83	28	6.9	

	White				Black				Native American				Asian			
	DM	HTN	GN	CK	DM	HTN	GN	CK	DM	HTN	GN	CK	DM	HTN	GN	CK
1990	48	38	19	5.6	208	235	51	7.0	303	72	44	7.9	88	66	42	4.6
1991	56	42	20	5.8	242	270	57	7.7	336	89	43	7.5	92	69	39	4.6
1992	61	46	20	6.1	260	295	57	8.7	387	109	50	7.9	110	72	39	4.1
1993	60	43	19	5.7	255	275	57	7.7	379	84	52	7.0	112	80	45	6.9
1994	72	51	21	6.3	304	323	63	9.1	429	99	54	9.4	147	93	59	5.1
1995	77	44	21	6.5	341	288	69	9.2	513	122	54	5.6	171	93	54	6.2
1996	83	45	22	6.0	387	307	71	10.1	537	142	72	6.4	183	98	53	6.6
1997	94	52	23	6.4	399	316	67	10.3	452	44	47	5.8	173	93	50	5.1
1998	97	53	22	6.8	425	327	67	9.1	600	108	62	7.1	188	106	53	5.0
1999	101	55	22	6.8	413	323	66	9.2	485	68	37	2.0	184	104	44	4.4

	Number	Percent of total	Rate per million	Average annual % change, 1991-1995	Average annual % change, 1995-1999
0-19	551	0.8	6.7	5.9	5.3
20-44	9,822	13.8	92.6	5.8	3.0
45-64	25,155	35.2	505.9	6.7	5.0
65-74	18,710	26.2	1,130.3	5.4	8.2
75+	17,183	24.1	1,206.4	7.6	12.5
Male	38,033	53.3	314.1	5.7	7.9
Female	33,388	46.8	219.0	6.9	6.9
White	45,022	63.0	188.6	5.7	9.4
Black	22,899	32.1	843.1	6.5	4.9
Native American	970	1.4	582.5	11.3	-0.8
Asian	2,530	3.5	331.3	9.8	3.4
Hispanic	7,207	10.1	386.3	35.1	9.2
Non-Hispanic	64,214	89.9	252.2	5.3	7.4
Diabetes	32,016	44.8	116.4	9.6	9.8
Hypertension	19,687	27.6	71.6	2.3	7.8
Glomerulonephritis	6,242	8.7	22.7	3.3	3.5
Cystic kidney	1,490	2.1	5.4	3.2	3.9
Other urologic	1,301	1.8	4.7	2.3	6.2
All	71,421	100.0	259.8	6.3	7.3

**Incident counts & rates:
hemodialysis**

1999, rates adjusted for age,
gender, & race

Table 1.1.

	Number	Percent of total	Rate per million	Average annual % change, 1991-1995	Average annual % change, 1995-1999
0-19	336	5.0	4.3	13.8	1.4
20-44	1,448	21.6	13.8	2.3	-5.3
45-64	2,815	42.0	53.1	7.7	-4.8
65-74	1,357	20.2	77.8	3.9	3.0
75+	748	11.2	47.0	5.8	5.9
Male	3,500	52.2	27.6	4.2	-2.3
Female	3,204	47.8	22.0	6.9	-1.8
White	5,008	74.7	21.4	5.0	-0.1
Black	1,413	21.1	47.7	4.6	-6.0
Native American	67	1.0	36.4	8.4	-13.2
Asian	216	3.2	24.1	19.4	-11.2
Hispanic	554	8.3	25.3	24.3	0.5
Non-Hispanic	6,150	91.7	24.5	4.9	-2.1
Diabetes	2,983	44.5	10.9	7.5	-0.8
Hypertension	1,311	19.6	4.8	0.4	-0.7
Glomerulonephritis	964	14.4	3.5	5.9	-4.8
Cystic kidney	346	5.2	1.3	5.0	-0.8
Other urologic	122	1.8	0.5	12.7	1.7
All	6,704	100.0	24.4	5.5	-2.2

**Incident counts & rates:
peritoneal dialysis**

1999, rates adjusted for age,
gender, & race

Table 1.2.

HP2010 Objective 4.2: Reduce deaths from cardiovascular disease in persons with chronic kidney failure

Death rates by primary cause of death: ESRD patients	0 - 19		20-44					45-64				
	ALL	Male	Female	White	Black	All	Male	Female	White	Black	All	
Acute MI.	0.2	3.6	2.9	3.4	3.2	3.3	13.4	12.7	14.0	12.0	13.1	
Hyperkalemia	0.3	1.4	1.3	1.3	1.4	1.3	1.6	2.0	2.1	1.3	1.8	
Pericarditis	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	
Atherosclerotic HD	0.1	0.6	0.7	0.8	0.4	0.6	3.3	3.4	4.0	2.6	3.4	
Cardiomyopathy	0.5	1.2	1.0	0.9	1.6	1.1	4.6	3.6	4.7	3.6	4.1	
Cardiac arrhythmia	0.7	2.5	2.4	2.3	2.9	2.5	7.2	7.4	7.8	6.8	7.3	
Cardiac arrest	3.0	10.1	11.5	9.0	14.5	10.7	26.5	28.8	26.6	29.6	27.5	
Valvular HD	0.1	0.3	0.4	0.3	0.5	0.4	0.6	0.8	0.7	0.8	0.7	
Pulmonary edema	0.3	0.5	0.4	0.4	0.6	0.5	0.9	1.1	1.1	0.9	1.0	
AIDS	0.1	2.6	1.6	0.3	5.8	2.2	0.8	0.3	0.1	1.3	0.5	
Cachexia	.	0.3	0.3	0.4	0.2	0.3	0.9	1.0	1.1	0.7	0.9	
Cerebrovascular dis.	1.4	2.8	3.9	2.9	4.1	3.3	6.3	9.5	6.9	8.9	7.7	
G.I. hemorrhage	0.3	0.4	0.5	0.4	0.6	0.4	1.0	1.0	1.0	1.2	1.0	
Other hemorrhage	0.5	0.7	0.9	0.7	1.0	0.8	1.2	1.3	1.1	1.5	1.2	
Septicemia	1.7	5.5	7.7	5.3	8.7	6.4	14.4	19.8	15.8	18.8	16.8	
Pulmonary infection	0.2	1.2	1.0	1.0	1.5	1.1	2.4	2.2	2.6	1.9	2.3	
Viral infection	0.2	0.2	0.3	0.2	0.3	0.2	0.3	0.2	0.3	0.2	0.2	
Other infection	0.4	0.4	0.4	0.4	0.5	0.4	0.7	1.1	1.0	0.8	0.9	
Malignant disease	0.5	1.2	1.0	1.3	1.0	1.1	5.2	4.8	5.3	4.9	5.0	
Other	6.4	14.2	14.3	14.1	15.5	14.2	30.6	30.7	34.5	26.5	30.6	
Unknown	1.5	5.1	5.1	3.9	7.6	5.1	10.0	9.7	9.1	11.4	9.9	
All	18.5	55.0	57.6	49.2	72.2	56.1	132.1	141.6	139.8	135.8	136.3	
Years at risk	18,224	137,895	100,255	141,661	78,923	238,150	204,892	161,889	205,464	132,579	366,781	
Total patients	20,173	152,946	111,300	155,061	89,699	264,246	241,016	193,100	244,007	156,355	434,116	

	65+					All						
	Male	Female	White	Black	All	Male	Female	White	Black	N Am	Asian	All
Acute MI.	31.1	26.7	31.6	23.3	28.9	15.7	15.1	17.1	12.8	13.5	13.7	15.4
Hyperkalemia	5.3	5.7	7.1	2.5	5.5	2.6	3.1	3.6	1.7	2.3	2.3	2.8
Pericarditis	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.5	0.1	0.2
Atherosclerotic HD	14.7	13.5	16.8	9.3	14.1	5.9	6.3	7.5	3.9	4.0	4.3	6.1
Cardiomyopathy	18.1	12.1	18.3	9.2	15.1	7.6	6.0	8.3	4.7	4.2	5.4	6.8
Cardiac arrhythmia	19.2	16.6	19.9	14.2	17.9	9.3	9.4	10.4	7.8	8.6	7.3	9.3
Cardiac arrest	70.6	69.5	71.6	67.8	70.0	34.5	38.8	37.1	36.4	34.9	32.5	36.5
Valvular HD	1.9	2.3	2.4	1.5	2.1	0.9	1.2	1.2	1.0	0.5	0.5	1.1
Pulmonary edema	3.1	3.3	3.9	1.9	3.2	1.4	1.7	1.8	1.1	1.9	1.2	1.6
AIDS	0.1	<0.05	<0.05	0.2	0.1	1.1	0.5	0.1	2.1	0.3	0.1	0.8
Cachexia	3.9	4.7	5.1	2.8	4.3	1.6	2.1	2.3	1.2	1.4	1.2	1.8
Cerebrovascular dis.	15.3	21.6	18.5	18.2	18.5	7.9	12.4	9.8	10.3	10.3	9.4	9.9
G.I. hemorrhage	2.9	2.9	2.9	2.9	2.9	1.4	1.6	1.4	1.5	1.3	1.6	1.5
Other hemorrhage	2.6	2.9	2.9	2.5	2.8	1.4	1.8	1.6	1.6	1.3	1.7	1.6
Septicemia	31.8	37.9	33.9	37.0	34.9	16.8	23.1	19.1	21.2	19.3	14.7	19.7
Pulmonary infection	11.3	7.8	10.5	6.7	9.5	4.6	3.9	4.8	3.2	5.2	5.5	4.3
Viral infection	0.4	0.3	0.4	0.3	0.4	0.3	0.3	0.3	0.3	.	0.3	0.3
Other infection	1.3	1.7	1.6	1.5	1.5	0.8	1.1	1.0	0.9	0.5	0.8	0.9
Malignant disease	15.6	10.2	13.7	12.6	12.9	7.1	5.8	7.1	6.1	3.5	3.4	6.5
Other	73.8	72.0	83.3	54.4	72.9	38.3	41.1	45.5	31.5	30.7	27.4	39.6
Unknown	22.0	23.5	23.0	23.6	22.7	12.0	13.4	12.4	13.8	15.2	5.8	12.6
All	345.3	335.5	367.6	292.8	340.4	171.4	188.7	192.7	163.3	159.4	139.2	179.3
Years at risk	148,235	150,023	191,064	88,173	298,259	501,796	419,618	550,631	303,808	14,490	33,964	921,414
Total patients	200,778	201,131	264,125	113,053	401,909	606,532	513,912	676,800	363,805	17,152	40,289	1,120,444

." Zero patients in this cell.

	0-19	20-44					45-64				
	ALL	Male	Female	White	Black	All	Male	Female	White	Black	All
Acute MI.	0.9	8.3	4.4	7.9	4.3	6.3	25.6	20.0	26.7	16.4	22.9
Hyperkalemia	0.5	2.4	1.2	2.3	1.3	1.8	1.9	2.3	2.9	0.5	2.1
Pericarditis	0.5	0.3	0.1	0.4	.	0.2	0.3	0.1	0.2	0.1	0.2
Atherosclerotic HD	.	1.9	1.7	2.6	0.7	1.8	7.0	6.0	8.0	3.9	6.5
Cardiomyopathy	0.9	3.4	2.2	2.8	2.7	2.8	10.9	6.6	11.4	5.4	8.8
Cardiac arrhythmia	0.9	4.4	3.4	4.8	3.0	3.9	13.1	11.8	14.3	9.7	12.5
Cardiac arrest	10.8	19.1	17.7	20.2	17.9	18.4	45.3	40.0	45.2	41.4	42.7
Valvular HD	0.5	0.6	0.6	0.6	0.7	0.6	0.9	1.1	1.1	1.1	1.0
Pulmonary edema	0.5	0.7	0.4	0.6	0.4	0.6	1.3	1.3	1.5	0.8	1.3
AIDS	.	3.9	1.3	0.7	5.9	2.5	0.9	0.2	0.2	1.4	0.6
Cachexia	.	1.0	0.7	1.5	.	0.9	1.9	2.2	2.7	0.7	2.0
Cerebrovascular dis.	2.3	4.9	6.8	6.2	6.2	5.9	9.1	14.6	12.4	12.3	11.8
G.I. hemorrhage	1.4	1.4	0.7	0.6	1.7	1.0	1.8	1.5	1.4	2.1	1.6
Other hemorrhage	0.9	0.9	1.4	1.4	0.9	1.2	1.3	1.3	1.5	1.1	1.3
Septicemia	5.0	13.7	17.4	17.9	14.1	15.6	30.1	37.1	35.7	29.9	33.6
Pulmonary infection	0.5	2.0	1.7	2.2	1.4	1.8	3.3	2.7	3.4	1.7	3.0
Viral infection	0.5	0.1	0.1	0.2	.	0.1	0.3	0.2	0.3	.	0.3
Other infection	1.4	0.5	0.9	0.8	0.7	0.7	1.3	2.0	1.9	1.5	1.7
Malignant disease	1.4	1.4	1.0	1.4	1.0	1.2	4.3	4.1	4.8	3.6	4.2
Other	13.1	17.4	16.5	17.6	15.8	16.9	33.8	35.5	39.6	27.9	34.6
Unknown	3.6	7.8	6.7	7.9	6.9	7.2	14.3	11.7	13.6	13.7	13.0
All	45.2	96.1	86.6	100.7	85.7	91.2	208.9	202.4	228.7	175.0	205.7
Years at risk	2,214	9,544	10,287	11,090	6,969	19,832	15,911	15,669	19,418	9,501	31,580
Total patients	3,108	12,174	12,813	14,571	8,271	24,987	20,887	20,206	26,056	11,682	41,093

Death rates by primary cause of death: dialysis patients

period prevalent patients 1997–1999, rates per 1,000 patient years at risk

Table H.9.

	65+					All						
	Male	Female	White	Black	All	Male	Female	White	Black	N Am	Asian	All
Acute MI.	41.5	33.7	39.9	29.7	38.0	25.5	18.7	26.3	14.0	23.5	14.7	22.2
Hyperkalemia	4.9	3.6	5.0	1.2	4.3	2.9	2.3	3.5	0.9	4.2	0.9	2.6
Pericarditis	0.2	0.3	0.2	.	0.2	0.3	0.2	0.2	<0.05	0.8	0.9	0.2
Atherosclerotic HD	22.7	19.9	24.0	14.6	21.4	10.4	8.3	12.1	4.4	5.9	4.3	9.4
Cardiomyopathy	34.8	21.0	32.0	17.9	28.6	16.1	9.1	16.3	6.3	7.6	4.6	12.7
Cardiac arrhythmia	24.5	19.8	23.3	20.9	22.4	14.1	11.3	14.9	8.9	10.1	7.4	12.7
Cardiac arrest	76.9	78.7	77.7	83.1	77.7	47.3	43.3	49.8	39.2	32.8	30.7	45.4
Valvular HD	2.2	2.7	2.7	1.8	2.4	1.2	1.4	1.5	1.0	.	0.6	1.3
Pulmonary edema	2.7	4.8	4.0	2.4	3.7	1.6	1.9	2.1	1.0	.	1.8	1.7
AIDS	0.2	.	.	0.6	0.1	1.4	0.4	0.2	2.8	.	.	0.9
Cachexia	6.2	10.3	8.3	6.7	8.0	2.9	3.8	4.3	1.4	2.5	3.1	3.4
Cerebrovascular dis.	18.3	29.6	24.3	20.0	23.4	10.7	16.0	14.9	11.1	8.4	7.4	13.3
G.I. hemorrhage	3.0	3.7	3.4	1.8	3.3	2.0	1.8	1.9	1.9	1.7	3.4	1.9
Other hemorrhage	1.5	2.2	1.7	2.4	1.8	1.3	1.5	1.5	1.2	0.8	1.5	1.4
Septicemia	46.7	61.3	51.4	59.7	53.3	30.4	37.1	36.2	28.6	38.7	21.8	33.7
Pulmonary infection	13.6	7.5	11.2	7.9	10.8	6.1	3.6	5.7	2.6	1.7	6.7	4.9
Viral infection	0.3	0.4	0.5	.	0.4	0.3	0.2	0.3	.	.	0.3	0.3
Other infection	2.1	5.4	3.5	3.6	3.6	1.4	2.6	2.2	1.6	0.8	1.5	2.0
Malignant disease	10.8	9.1	10.2	11.8	10.1	5.5	4.5	5.8	4.0	2.5	2.5	5.0
Other	71.2	86.1	83.8	59.1	77.9	40.6	43.0	49.2	28.4	26.9	25.2	41.7
Unknown	20.4	23.7	23.4	18.5	21.9	14.2	13.3	15.4	11.9	9.2	4.3	13.8
All	404.6	423.8	430.6	363.9	413.3	236.1	224.3	264.5	171.2	178.2	143.6	230.4
Years at risk	11,855	9,737	16,939	3,298	21,592	38,438	36,780	48,823	20,356	1,190	3,260	75,218
Total patients	16,457	13,570	23,867	4,408	30,027	51,090	48,125	66,481	25,142	1,460	4,070	99,215

". Zero patients in this cell.

Death rates by primary cause of death: hemodialysis patients

period prevalent patients 1997–1999, rates per 1,000 patient years at risk

Table H.10.

	0-19		20-44				45-64				
	ALL	Male	Female	White	Black	All	Male	Female	White	Black	All
Acute MI.	0.7	5.7	5.2	7.5	4.2	5.5	17.9	16.3	21.2	13.6	17.2
Hyperkalemia	1.0	2.8	2.8	3.7	2.0	2.8	2.5	2.8	3.7	1.6	2.6
Pericarditis	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3
Atherosclerotic HD	0.3	1.0	1.2	1.8	0.5	1.1	4.5	4.5	6.3	3.0	4.5
Cardiomyopathy	2.0	2.2	2.0	2.2	2.1	2.1	6.2	4.6	7.1	4.2	5.5
Cardiac arrhythmia	2.3	4.7	4.6	5.8	3.9	4.7	10.4	9.7	12.8	7.7	10.1
Cardiac arrest	6.9	18.8	22.5	22.6	19.3	20.3	38.6	39.1	44.0	34.3	38.8
Valvular HD	0.3	0.6	0.8	0.8	0.6	0.7	1.0	1.1	1.2	1.0	1.0
Pulmonary edema	1.0	0.9	0.9	0.9	0.8	0.9	1.4	1.5	1.8	1.1	1.5
AIDS	0.7	5.4	3.8	1.0	8.3	4.8	1.2	0.4	0.2	1.6	0.9
Cachexia	.	0.4	0.5	0.7	0.3	0.4	1.2	1.3	1.6	0.9	1.2
Cerebrovascular dis.	3.3	5.0	7.1	6.6	5.3	5.8	9.1	12.5	10.9	10.2	10.7
G.I. hemorrhage	0.7	0.7	0.8	0.9	0.7	0.8	1.5	1.4	1.6	1.4	1.4
Other hemorrhage	1.3	1.2	1.6	1.3	1.4	1.4	1.6	1.7	1.6	1.7	1.7
Septicemia	3.9	9.4	13.1	11.2	11.0	10.9	19.7	24.9	23.7	21.1	22.1
Pulmonary infection	0.7	1.9	1.4	1.6	1.8	1.7	3.2	2.6	3.7	2.1	2.9
Viral infection	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.2	0.3	0.2	0.3
Other infection	0.7	0.6	0.7	1.0	0.5	0.7	0.8	1.3	1.4	0.8	1.1
Malignant disease	1.0	1.7	1.7	2.5	1.2	1.7	6.9	6.2	7.9	5.7	6.6
Other	10.8	18.8	19.2	22.1	17.4	19.0	31.0	33.1	40.7	25.0	32.0
Unknown	1.6	9.6	9.7	9.2	10.3	9.6	14.0	13.0	14.2	13.1	13.5
All	39.7	92.2	100.1	104.1	92.3	95.4	173.1	178.9	206.3	150.5	175.8
Years at risk	3,047	58,216	38,890	39,834	50,030	97,106	115,099	97,800	97,106	98,911	212,899
Total patients	4,256	72,780	48,717	51,733	60,684	121,497	147,170	125,028	129,728	121,135	272,198

	65+					All						
	Male	Female	White	Black	All	Male	Female	White	Black	N Am	Asian	All
Acute MI.	32.9	27.7	33.6	23.9	30.2	21.5	20.1	25.8	15.1	15.5	20.2	20.9
Hyperkalemia	6.0	6.1	8.0	2.7	6.1	4.0	4.4	6.0	2.1	2.8	3.6	4.2
Pericarditis	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5	<0.05	0.3
Atherosclerotic HD	15.5	13.8	17.8	9.4	14.6	8.3	8.5	11.7	4.7	5.0	6.4	8.4
Cardiomyopathy	18.3	12.1	18.5	9.2	15.1	10.3	7.8	12.4	5.5	5.1	8.1	9.1
Cardiac arrhythmia	20.7	17.4	21.7	14.5	19.0	13.4	12.6	16.5	9.2	10.6	10.9	13.0
Cardiac arrest	77.1	72.9	78.3	69.6	75.0	50.3	52.9	59.0	43.2	46.0	47.8	51.5
Valvular HD	2.0	2.4	2.7	1.6	2.2	1.3	1.7	1.9	1.1	0.7	0.8	1.5
Pulmonary edema	3.4	3.4	4.2	1.9	3.4	2.1	2.3	2.9	1.3	2.7	1.6	2.2
AIDS	0.1	0.1	<0.05	0.2	0.1	1.6	0.7	0.2	2.6	0.4	0.1	1.2
Cachexia	4.1	4.6	5.4	2.8	4.3	2.2	2.8	3.5	1.4	1.7	1.5	2.5
Cerebrovascular dis.	16.5	22.2	19.7	18.8	19.4	11.2	16.4	14.9	12.1	13.4	13.8	13.7
G.I. hemorrhage	3.1	3.0	3.1	3.1	3.1	2.0	2.1	2.3	1.8	1.7	2.0	2.1
Other hemorrhage	2.9	3.2	3.3	2.5	3.0	2.1	2.4	2.4	2.0	1.5	2.5	2.2
Septicemia	33.1	38.1	35.0	37.2	35.7	23.1	29.5	27.9	24.4	21.8	20.4	26.1
Pulmonary infection	12.0	8.1	11.3	6.8	10.0	6.5	5.1	7.4	3.6	6.6	7.9	5.8
Viral infection	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	.	0.3	0.3
Other infection	1.3	1.5	1.4	1.4	1.4	1.0	1.3	1.4	0.9	0.5	0.9	1.1
Malignant disease	17.2	10.7	15.0	13.0	13.9	10.0	7.7	10.9	7.2	4.1	4.8	8.9
Other	74.7	71.7	85.5	53.2	73.1	46.3	49.6	61.6	33.1	36.1	32.7	47.9
Unknown	24.0	24.8	25.1	24.5	24.4	17.1	18.2	19.2	16.4	19.5	8.5	17.6
All	365.4	344.2	390.3	296.7	354.4	235.0	246.7	288.4	188.3	196.1	194.8	240.6
Years at risk	120,872	129,427	153,893	80,474	250,298	295,855	267,495	292,294	230,643	10,006	20,210	563,350
Total patients	167,768	175,655	218,490	103,842	343,423	390,017	351,357	402,021	287,341	12,474	26,016	741,374

	0 - 19	20-44				45-64					
	ALL	Male	Female	White	Black	All	Male	Female	White	Black	All
Acute MI.	0.9	8.3	4.4	7.9	4.3	6.3	25.6	20.0	26.7	16.4	22.9
Hyperkalemia	0.5	2.4	1.2	2.3	1.3	1.8	1.9	2.3	2.9	0.5	2.1
Pericarditis	0.5	0.3	0.1	0.4	.	0.2	0.3	0.1	0.2	0.1	0.2
Atherosclerotic HD	.	1.9	1.7	2.6	0.7	1.8	7.0	6.0	8.0	3.9	6.5
Cardiomyopathy	0.9	3.4	2.2	2.8	2.7	2.8	10.9	6.6	11.4	5.4	8.8
Cardiac arrhythmia	0.9	4.4	3.4	4.8	3.0	3.9	13.1	11.8	14.3	9.7	12.5
Cardiac arrest	10.8	19.1	17.7	20.2	17.9	18.4	45.3	40.0	45.2	41.4	42.7
Valvular HD	0.5	0.6	0.6	0.6	0.7	0.6	0.9	1.1	1.1	1.1	1.0
Pulmonary edema	0.5	0.7	0.4	0.6	0.4	0.6	1.3	1.3	1.5	0.8	1.3
AIDS	.	3.9	1.3	0.7	5.9	2.5	0.9	0.2	0.2	1.4	0.6
Cachexia	.	1.0	0.7	1.5	.	0.9	1.9	2.2	2.7	0.7	2.0
Cerebrovascular dis.	2.3	4.9	6.8	6.2	6.2	5.9	9.1	14.6	12.4	12.3	11.8
G.I. hemorrhage	1.4	1.4	0.7	0.6	1.7	1.0	1.8	1.5	1.4	2.1	1.6
Other hemorrhage	0.9	0.9	1.4	1.4	0.9	1.2	1.3	1.3	1.5	1.1	1.3
Septicemia	5.0	13.7	17.4	17.9	14.1	15.6	30.1	37.1	35.7	29.9	33.6
Pulmonary infection	0.5	2.0	1.7	2.2	1.4	1.8	3.3	2.7	3.4	1.7	3.0
Viral infection	0.5	0.1	0.1	0.2	.	0.1	0.3	0.2	0.3	.	0.3
Other infection	1.4	0.5	0.9	0.8	0.7	0.7	1.3	2.0	1.9	1.5	1.7
Malignant disease	1.4	1.4	1.0	1.4	1.0	1.2	4.3	4.1	4.8	3.6	4.2
Other	13.1	17.4	16.5	17.6	15.8	16.9	33.8	35.5	39.6	27.9	34.6
Unknown	3.6	7.8	6.7	7.9	6.9	7.2	14.3	11.7	13.6	13.7	13.0
All	45.2	96.1	86.6	100.7	85.7	91.2	208.9	202.4	228.7	175.0	205.7
Years at risk	2,214	9,544	10,287	11,090	6,969	19,832	15,911	15,669	19,418	9,501	31,580
Total patients	3,108	12,174	12,813	14,571	8,271	24,987	20,887	20,206	26,056	11,682	41,093

Death rates by primary cause of death: CAPD/CCPD patients
period prevalent patients 1997–1999, rates per 1,000 patient years at risk

Table H.11.

	65+					All						
	Male	Female	White	Black	All	Male	Female	White	Black	N Am	Asian	All
Acute MI.	41.5	33.7	39.9	29.7	38.0	25.5	18.7	26.3	14.0	23.5	14.7	22.2
Hyperkalemia	4.9	3.6	5.0	1.2	4.3	2.9	2.3	3.5	0.9	4.2	0.9	2.6
Pericarditis	0.2	0.3	0.2	.	0.2	0.3	0.2	0.2	<0.05	0.8	0.9	0.2
Atherosclerotic HD	22.7	19.9	24.0	14.6	21.4	10.4	8.3	12.1	4.4	5.9	4.3	9.4
Cardiomyopathy	34.8	21.0	32.0	17.9	28.6	16.1	9.1	16.3	6.3	7.6	4.6	12.7
Cardiac arrhythmia	24.5	19.8	23.3	20.9	22.4	14.1	11.3	14.9	8.9	10.1	7.4	12.7
Cardiac arrest	76.9	78.7	77.7	83.1	77.7	47.3	43.3	49.8	39.2	32.8	30.7	45.4
Valvular HD	2.2	2.7	2.7	1.8	2.4	1.2	1.4	1.5	1.0	.	0.6	1.3
Pulmonary edema	2.7	4.8	4.0	2.4	3.7	1.6	1.9	2.1	1.0	.	1.8	1.7
AIDS	0.2	.	.	0.6	0.1	1.4	0.4	0.2	2.8	.	.	0.9
Cachexia	6.2	10.3	8.3	6.7	8.0	2.9	3.8	4.3	1.4	2.5	3.1	3.4
Cerebrovascular dis.	18.3	29.6	24.3	20.0	23.4	10.7	16.0	14.9	11.1	8.4	7.4	13.3
G.I. hemorrhage	3.0	3.7	3.4	1.8	3.3	2.0	1.8	1.9	1.9	1.7	3.4	1.9
Other hemorrhage	1.5	2.2	1.7	2.4	1.8	1.3	1.5	1.5	1.2	0.8	1.5	1.4
Septicemia	46.7	61.3	51.4	59.7	53.3	30.4	37.1	36.2	28.6	38.7	21.8	33.7
Pulmonary infection	13.6	7.5	11.2	7.9	10.8	6.1	3.6	5.7	2.6	1.7	6.7	4.9
Viral infection	0.3	0.4	0.5	.	0.4	0.3	0.2	0.3	.	.	0.3	0.3
Other infection	2.1	5.4	3.5	3.6	3.6	1.4	2.6	2.2	1.6	0.8	1.5	2.0
Malignant disease	10.8	9.1	10.2	11.8	10.1	5.5	4.5	5.8	4.0	2.5	2.5	5.0
Other	71.2	86.1	83.8	59.1	77.9	40.6	43.0	49.2	28.4	26.9	25.2	41.7
Unknown	20.4	23.7	23.4	18.5	21.9	14.2	13.3	15.4	11.9	9.2	4.3	13.8
All	404.6	423.8	430.6	363.9	413.3	236.1	224.3	264.5	171.2	178.2	143.6	230.4
Years at risk	11,855	9,737	16,939	3,298	21,592	38,438	36,780	48,823	20,356	1,190	3,260	75,218
Total patients	16,457	13,570	23,867	4,408	30,027	51,090	48,125	66,481	25,142	1,460	4,070	99,215

Death rates by primary cause of death: transplant patients
period prevalent patients 1997–1999, rates per 1,000 patient years at risk

Table H.12.

	0-19		20-44				45-64					All
	ALL	Male	Female	White	Black	All	Male	Female	White	Black		
Acute MI.	.	1.0	0.6	0.9	0.6	0.8	2.9	2.1	2.6	2.5	2.6	
Hyperkalemia	0.1	<0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
Pericarditis	.	<0.05	<0.05	<0.05	.	<0.05	<0.05	0.1	<0.05	<0.05	<0.05	0.1
Atherosclerotic HD	.	0.1	0.1	0.1	0.1	0.1	0.5	0.3	0.4	0.5	0.4	
Cardiomyopathy	0.1	0.2	0.1	0.1	0.2	0.1	0.4	0.4	0.5	0.3	0.4	
Cardiac arrhythmia	0.3	0.4	0.3	0.4	0.5	0.4	0.7	0.8	0.6	1.1	0.7	
Cardiac arrest	0.6	1.3	1.6	1.4	1.7	1.4	2.9	3.0	2.8	3.6	2.9	
Valvular HD	.	0.1	<0.05	<0.05	0.2	0.1	<0.05	0.1	<0.05	0.1	<0.05	
Pulmonary edema	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.2	0.1	
AIDS	.	<0.05	.	<0.05	0.1	<0.05	.	.	.	.	.
Cachexia	.	<0.05	<0.05	0.1	.	<0.05	0.1	<0.05	0.1	.	0.1	
Cerebrovascular dis.	0.7	0.5	0.8	0.7	0.5	0.6	1.2	1.3	1.2	1.5	1.3	
G.I. hemorrhage	.	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	
Other hemorrhage	0.2	0.2	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.3	
Septicemia	0.5	0.8	1.2	0.9	1.5	1.0	2.0	2.8	2.2	3.3	2.3	
Pulmonary infection	0.1	0.4	0.4	0.4	0.5	0.4	0.8	1.0	0.8	1.0	0.9	
Viral infection	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	
Other infection	0.2	0.1	0.1	<0.05	0.2	0.1	0.2	0.2	0.2	0.3	0.2	
Malignant disease	0.3	0.8	0.5	0.7	0.5	0.7	2.8	1.8	2.5	2.2	2.4	
Other	3.8	9.4	9.5	9.6	10.4	9.4	27.9	22.4	25.5	30.0	25.7	
Unknown	0.8	1.0	0.9	0.9	1.4	1.0	2.6	1.8	2.2	2.8	2.3	
All	7.8	16.5	16.9	16.9	18.6	16.7	45.7	39.1	42.6	50.2	43.1	
Years at risk	11,731	64,428	46,835	84,365	19,184	111,264	67,681	43,923	82,394	21,041	111,603	
Total patients	12,212	65,837	47,892	86,363	19,536	113,729	69,962	45,303	85,209	21,696	115,265	

	65+					All						
	Male	Female	White	Black	All	Male	Female	White	Black	N Am	Asian	All
Acute MI.	4.6	2.8	4.0	3.7	3.9	2.1	1.4	1.9	1.7	2.4	0.7	1.8
Hyperkalemia	0.1	0.4	0.2	.	0.2	0.1	0.1	0.1	0.1	0.3	.	0.1
Pericarditis	0.1	.	.	0.3	<0.05	<0.05	<0.05	<0.05	<0.05	0.3	.	<0.05
Atherosclerotic HD	0.9	0.9	1.0	0.9	0.9	0.3	0.3	0.3	0.3	0.3	.	0.3
Cardiomyopathy	0.8	1.1	1.1	0.3	0.9	0.3	0.3	0.3	0.2	.	0.1	0.3
Cardiac arrhythmia	0.9	0.6	0.7	0.9	0.8	0.6	0.6	0.5	0.8	1.0	0.2	0.6
Cardiac arrest	6.5	3.8	5.3	6.5	5.4	2.4	2.4	2.3	2.9	1.3	2.0	2.4
Valvular HD	.	0.5	0.1	0.6	0.2	<0.05	0.1	<0.05	0.2	.	.	0.1
Pulmonary edema	0.4	0.5	0.4	0.6	0.4	0.1	0.2	0.1	0.2	.	0.1	0.1
AIDS	.	.	.	.	.	<0.05	.	<0.05	<0.05	.	.	<0.05
Cachexia	0.1	0.2	0.1	0.3	0.1	0.1	0.1	0.1	<0.05	.	.	0.1
Cerebrovascular dis.	2.1	3.1	2.6	2.8	2.5	0.9	1.2	1.1	1.2	0.7	0.8	1.1
G.I. hemorrhage	0.5	0.2	0.4	0.6	0.4	0.1	0.1	0.1	0.1	.	0.2	0.1
Other hemorrhage	0.6	0.6	0.6	0.9	0.6	0.3	0.2	0.2	0.3	0.7	0.2	0.3
Septicemia	4.5	5.4	4.9	5.6	4.9	1.7	2.2	1.7	2.6	2.7	0.8	1.9
Pulmonary infection	1.8	1.7	1.9	0.9	1.8	0.7	0.8	0.7	0.7	2.0	0.2	0.7
Viral infection	1.0	0.4	0.8	0.6	0.7	0.2	0.2	0.2	0.2	.	0.3	0.2
Other infection	0.7	0.6	0.7	.	0.7	0.2	0.2	0.2	0.2	0.3	0.3	0.2
Malignant disease	5.7	3.9	5.4	4.3	5.0	2.0	1.3	1.9	1.6	1.7	1.0	1.7
Other	63.3	50.4	58.5	62.5	58.2	21.9	18.0	20.4	22.9	14.1	16.7	20.4
Unknown	5.1	2.6	4.0	4.6	4.1	2.0	1.4	1.7	2.2	3.7	1.1	1.8
All	99.6	79.6	92.6	97.2	91.7	36.1	31.0	34.1	38.5	31.6	24.9	34.1
Years at risk	12,977	8,452	16,854	3,232	21,430	152,356	103,671	192,420	45,475	2,978	9,454	256,027
Total patients	13,697	8,853	17,745	3,405	22,550	157,056	106,700	198,505	46,728	3,047	9,661	263,756

HP2010 Objective 4.3: Increase the proportion of treated chronic kidney failure patients who have received counseling on nutrition, treatment choices, and cardiovascular care 12 months before the start of renal replacement therapy

Time before ESRD that patient was informed of kidney failure

	Hemodialysis								Peritoneal dialysis							
	White		Black		Other		Total		White		Black		Other		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
>1 year	356	47.9	162	42.2	53	57.0	571	46.8	471	62.7	131	57.2	41	44.1	643	59.9
4 months-1 year	135	18.2	82	21.4	16	17.2	233	19.1	111	14.8	37	16.2	27	29.0	175	16.3
2-3 months	83	11.2	47	12.2	9	9.7	139	11.4	55	7.3	23	10.0	8	8.6	86	8.0
1-4 weeks	75	10.1	29	7.6	7	7.5	111	9.1	55	7.3	12	5.2	10	10.8	77	7.2
<1 week	70	9.4	39	10.2	1	1.1	110	9.0	47	6.3	15	6.6	4	4.3	66	6.2
Not sure	24	3.2	25	6.5	7	7.5	56	4.6	12	1.6	11	4.8	3	3.2	26	2.4
Total	743	100	384	100	93	100	1,220	100	751	100	229	100	93	100	1,073	100

Medical care before ESRD, & choice of initial modality

Data are taken from the Dialysis Morbidity and Mortality Study, Wave 2, which included 4,024 incident hemodialysis and peritoneal dialysis patients from 1996. A total of 2,449 patients met all criteria for inclusion in these analyses: completion of the patient questionnaire, a valid incident modality type, valid race information, and a study start date between 1996 and 1997.

First nephrology visit before first ESRD service date

	Hemodialysis								Peritoneal dialysis							
	White		Black		Other		Total		White		Black		Other		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
>1 year	291	39.5	109	28.6	44	47.3	444	36.7	393	52.5	109	48.2	43	44.8	545	50.9
4 months-1 year	155	21.1	79	20.7	16	17.2	250	20.7	142	19.0	52	23.0	20	20.8	214	20.0
1-3 months	97	13.2	58	15.2	10	10.8	165	13.6	82	10.9	23	10.2	14	14.6	119	11.1
<1 month	95	12.9	51	13.4	7	7.5	153	12.6	70	9.3	14	6.2	4	4.2	88	8.2
None	67	9.1	51	13.4	8	8.6	126	10.4	45	6.0	21	9.3	10	10.4	76	7.1
Not sure	31	4.2	33	8.7	8	8.6	72	6.0	17	2.3	7	3.1	5	5.2	29	2.7
Total	736	100	381	100	93	100	1,210	100	749	100	226	100	96	100	1,071	100

Number of nephrology visits before first ESRD service date

	Hemodialysis								Peritoneal dialysis							
	White		Black		Other		Total		White		Black		Other		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
5 or more visits	259	34.9	134	35.2	49	52.1	442	36.3	323	43.0	110	48.5	46	47.9	479	44.6
2-4 visits	181	24.4	70	18.4	12	12.8	263	21.6	215	28.6	45	19.8	18	18.8	278	25.9
1 visit	62	8.4	28	7.3	3	3.2	93	7.6	44	5.9	12	5.3	8	8.3	64	6.0
No visits	187	25.2	98	25.7	23	24.5	308	25.3	131	17.4	39	17.2	15	15.6	185	17.2
Not sure	53	7.1	51	13.4	7	7.4	111	9.1	38	5.1	21	9.3	9	9.4	68	6.3
Total	742	100	381	100	94	100	1,217	100	751	100	227	100	96	100	1,074	100

Number of dietitian visits before first ESRD service date

	Hemodialysis								Peritoneal dialysis							
	White		Black		Other		Total		White		Black		Other		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Once	147	19.8	80	20.9	26	28.0	253	20.8	197	26.3	55	24.1	25	26.0	277	25.8
More than once	207	27.9	125	32.7	33	35.5	365	30.0	221	29.5	81	35.5	34	35.4	336	31.3
No, never	387	52.2	177	46.3	34	36.6	598	49.2	332	44.3	92	40.4	37	38.5	461	42.9
Total	741	100	382	100	93	100	1,216	100	750	100	228	100	96	100	1,074	100

Participation in choice of therapy

	Hemodialysis								Peritoneal dialysis							
	White		Black		Other		Total		White		Black		Other		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Patient leads	132	18.2	57	15.4	15	17.2	204	17.3	256	34.9	89	39.7	30	32.6	375	35.7
Team leads	376	51.9	202	54.6	43	49.4	621	52.6	432	58.0	132	59.7	43	44.1	607	57.4
Both	216	29.8	111	30.0	29	33.3	356	30.1	346	47.1	97	43.3	49	53.3	492	46.9
Total	724	100	370	100	87	100	1,181	100	734	100	224	100	92	100	1,050	100

HP2010 Objective 4.4: Increase the proportion of new hemodialysis patients who use arterio-venous fistulas as the primary mode of vascular access

Insertion rates for temporary & permanent central venous catheters, & creation rates for simple fistulas

per 1,000 patient years at risk, period prevalent hemodialysis patients

	Temporary catheters	Permanent catheters	Simple fistulas
1996	481.0	121.4	52.5
1997	453.0	140.3	57.1
1998	418.4	157.5	62.7
1999	396.9	207.4	71.1

Figure 4.22.

Rates per 1,000 years at risk include patients with and without catheters or simple fistulas.

Percent distribution of access type, by race

hemodialysis patients 67 years & older at initiation of ESRD, 1995–1997

	Fistula	Graft	Catheter
White	76.5	67.1	76.0
Black	19.7	28.2	20.5
Native American	1.2	1.1	0.9
Asian	2.7	3.6	2.6

Placement rates for simple fistulas

hemodialysis patients, per 1,000 patient years at risk

	Placement rates
1991	43.2
1995	51.6
1996	52.2
1997	55.7
1998	62.4

HP2010 Objective 4.5: Increase the proportion of dialysis patients registered on the waiting list for transplantation, and Objective 4.6: Increase the proportion of patients with treated chronic kidney failure who receive a transplant within three years of registration on the waiting list

	7.13				7.14		7.15			
	0-19	20-44	45-64	65+	Male	Female	White	Black	N Am	Asian
1990	754	8,829	6,276	566	9,546	6,896	10,573	5,001	155	598
1991	816	9,569	6,712	710	10,310	7,499	11,338	5,570	153	655
1992	846	10,154	7,507	891	11,281	8,119	12,374	6,050	164	700
1993	789	9,561	7,213	824	10,724	7,663	11,523	5,864	162	723
1994	921	10,840	9,010	1,064	12,775	9,060	13,805	6,864	184	835
1995	938	11,976	11,220	1,428	14,731	10,832	15,605	8,471	289	1,077
1996	935	13,747	14,489	2,020	17,911	13,281	18,341	10,794	357	1,510
1997	996	16,541	19,279	3,057	22,927	16,947	23,206	13,856	494	2,060
1998	1,248	19,529	24,694	4,857	29,279	21,054	29,366	17,376	642	2,649
1999	725	15,127	19,884	4,414	23,171	16,979	22,700	14,539	492	2,164

Wait-listed patients by age, gender, & race

Figures 7.13–15.

Patient counts are obtained from UNOS.

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	
0-17		348	298	408	433	384	454	459	457	494	510
18-29		577	561	650	610	568	718	695	785	864	894
30-44		653	666	702	739	740	769	766	813	919	913
45-59		759	744	815	775	766	832	834	908	963	951
60+		803	815	856	814	774	874	822	947	941	975
Male		657	656	727	719	713	765	763	825	891	903
Female		702	708	760	756	731	822	807	900	963	958
White		647	631	693	654	661	710	700	771	821	827
Black		793	844	909	982	945	1,024	1,015	1,124	1,212	1,226
Other		545	581	651	698	577	664	695	690	773	791
Hispanic		990	1,029	1,118
Non-Hispanic		840	908	901
Diabetes		489	518	551	570	621	642	635	679	729	758
Hypertension		831	821	852	905	920	971	967	1,050	1,172	1,199
Glomerulonephritis		866	844	897	880	824	905	929	969	1,057	1,052
Other		616	609	716	675	646	728	701	828	870	853
All		675	677	740	734	720	787	780	854	920	925

Mean time in days to first transplant, cadaveric donor from first ESRD service day

Table F.25.

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	
0-17		179	149	184	223	164	217	205	242	251	302
18-29		251	280	304	292	280	302	317	343	406	359
30-44		330	289	314	359	347	368	410	427	409	408
45-59		344	431	397	371	406	398	458	398	411	410
60+		368	432	376	509	461	404	510	481	450	409
Male		274	280	298	325	318	350	376	360	377	382
Female		308	320	329	355	339	342	407	428	428	403
White		278	290	292	322	301	321	359	354	360	367
Black		377	405	452	448	451	450	571	582	615	533
Other		235	194	258	338	402	418	381	399	413	371
Hispanic		518	530	531
Non-Hispanic		371	381	372
Diabetes		253	272	262	274	316	314	343	335	360	387
Hypertension		367	353	420	410	472	453	473	579	537	517
Glomerulonephritis		303	386	404	407	350	404	448	384	400	403
Other		280	243	258	303	283	292	349	360	374	349
All		288	297	311	338	327	347	389	388	399	391

Mean time in days to first transplant, living donor from first ESRD service day

Table F.26.

." Zero patients in this cell.

HP2010 Objective 4.7: Reduce kidney failure due to diabetes

Diabetic patient demographics

incident patients, dialysis as first modality

Dialysis	Total pts.	Total DM	% DM	Median Age	% <20	% 20-64	% >64	% Male	% Female	% White	% Black	% N Am	% Asian	% % non-Hisp.	% % non-Hisp.
1978	13,910	1,392	10	54	4.7	69.9	25.4	55.2	44.8	63	33.2	0.7	0.7	0.4	99.6
1979	15,610	1,612	10.3	55	4.2	67.7	28.1	55.3	44.7	61.9	34.3	0.7	0.7	0.4	99.6
1980	16,676	2,193	13.2	56	3.9	66.4	29.7	55.5	44.5	61.9	34.1	0.8	0.8	0.5	99.5
1981	18,797	3,564	19	56	4	68.7	27.3	55.1	44.9	63.7	32.4	0.9	1.1	0.7	99.3
1982	21,194	4,894	23.1	56	3.7	66.3	30	54.8	45.2	67.6	29.2	1	1.7	1	99
1983	24,727	5,798	23.4	59	3.1	60.8	36.2	54.7	45.3	65.9	30.5	1.1	2	1	99
1984	25,807	6,898	26.7	59	2.9	61.3	35.8	55	45	66	29.8	1	2.8	1.3	98.7
1985	28,573	8,033	28.1	60	2.5	59.6	37.9	54.2	45.8	66.1	29.6	1	2.9	1.4	98.6
1986	31,045	9,209	29.7	61	2.3	57.8	39.9	54.5	45.5	65.9	29.4	1.1	3.1	1.7	98.3
1987	33,901	10,292	30.4	61	2.1	56.3	41.6	54	46	65.3	29.9	1.1	3.2	2	98
1988	37,534	11,611	30.9	62	1.9	55.9	42.1	53.8	46.2	64.5	30.2	1.3	2.9	2.3	97.7
1989	42,514	14,137	33.3	62	1.8	54.2	44	53.9	46.1	64.8	31.2	1.4	2.2	2.6	97.4
1990	45,918	15,899	34.6	63	1.6	53.3	45.1	54	46	64.9	30.6	1.4	2.5	3.2	96.8
1991	51,726	18,648	36.1	63	1.4	51.7	46.8	53.5	46.5	64.6	30.7	1.3	2.5	3.5	96.5
1992	56,586	20,715	36.6	64	1.3	51.3	47.3	52.9	47.1	64	30.8	1.5	2.6	4	96
1993	58,826	20,762	35.3	64	1.3	50.8	47.9	53.2	46.8	62.5	31.4	1.4	3	4.7	95.3
1994	70,720	25,341	35.8	63	1.3	53.1	45.6	52.3	47.7	60.4	30.5	1.4	3.2	4.3	95.7
1995	69,917	28,212	40.4	63	1.4	52.7	45.9	52.6	47.4	61.1	31.6	1.7	3.5	9.3	90.7
1996	73,447	31,267	42.6	63	1.4	51.2	47.4	53.3	46.7	60.7	31.8	1.8	3.5	10.6	89.4
1997	79,790	34,641	43.4	64	1.2	49.2	49.6	53	47	63.2	30.3	1.2	3.2	10	90
1998	83,678	36,678	43.8	64	1.2	49.8	49.1	53	47	62.6	30.6	1.6	3.5	10.5	89.5
1999	86,015	37,865	44	64	1.2	49.2	49.6	53.3	46.7	63.7	29.9	1.3	3.4	10.4	89.6

Diabetic patient demographics

incident patients, transplant as first modality

Transplant	Total pts.	Total DM	% DM	Median Age	% <20	% 20-64	% >64	% Male	% Female	% White	% Black	% N Am	% Asian	% % non-Hisp.	% % non-Hisp.
1978	400	18	4.5	31	19.5	79.8	0.8	67.5	32.5	66.5	15.3	0.3	0.8	2.3	97.8
1979	421	26	6.2	30	22.6	77.2	0.2	62.2	37.8	70.5	14.7	0.2	0.7	1.4	98.6
1980	460	32	7	32	17.4	81.3	1.3	65.9	34.1	69.1	13.3	0.2	0.4	2	98
1981	457	45	9.8	31	21.2	78.1	0.7	67.2	32.8	69.6	14.7	2	1.1	0.9	99.1
1982	560	87	15.5	32	20.2	79.6	0.2	67.1	32.9	68.4	14.8	0.4	0.9	2.9	97.1
1983	543	63	11.6	33	17.1	82.1	0.7	65.7	34.3	61.9	11.8	1.3	2.6	1.8	98.2
1984	627	100	15.9	33	20.7	76.7	2.6	63.5	36.5	61.6	10.8	1	1.6	2.6	97.4
1985	729	113	15.5	32	18.5	79.4	2.1	60.2	39.8	64.9	10.2	1	1.5	3	97
1986	942	169	17.9	34	17.6	80	2.3	60.7	39.3	68.4	9.6	0.2	1.5	4.1	95.9
1987	1,246	169	13.6	35	17.4	81	1.6	58.7	41.3	67.6	13.6	0.8	3.4	5.1	94.9
1988	1,776	178	10	35	16	82.5	1.5	58.7	41.3	70.4	18	1.3	3.8	8.3	91.7
1989	1,757	212	12.1	35	18.6	79.7	1.7	57.4	42.6	74	16.8	0.8	3.6	9.4	90.6
1990	1,857	194	10.4	36	17.1	80.9	2	56.3	43.7	73.4	15.5	0.9	4.1	8.2	91.8
1991	1,784	242	13.6	36	15.7	82.3	2	57.6	42.4	76.9	13.9	1.6	3.4	10.2	89.8
1992	1,744	225	12.9	38	14	83	3	55.4	44.6	75.1	15.2	1	4.6	9.5	90.5
1993	1,983	244	12.3	38	15.3	81.6	3.1	56.4	43.6	75.4	15.8	0.9	3.8	10.8	89.2
1994	1,667	253	15.2	38	14.3	83.4	2.3	56.7	43.3	62.6	27.8	0.8	3.4	5.1	94.9
1995	1,526	252	16.5	39	15.9	81.1	3	55.5	44.5	66.6	26.5	1	3.1	4.1	95.9
1996	1,498	293	19.6	40	16.2	80.8	2.9	59.8	40.2	71.8	22.2	0.7	3.1	4.8	95.2
1997	1,522	284	18.7	41	15.2	80.8	4	59.3	40.7	81.3	12	0.5	2.8	4.5	95.5
1998	1,665	263	15.8	42	11.8	84	4.2	55.9	44.1	83.5	10.5	0.7	2.4	4.1	95.9
1999	2,076	295	14.2	42	14	81.4	4.6	56.6	43.4	81.9	11.6	0.5	2.6	3.7	96.3

	Diabetes primary/contributing	Diabetes on insulin
White	41.5	24.0
Black	41.0	22.2
Native American	68.0	36.9
Asian	40.0	17.0
Hispanic Mexican	58.9	26.5
Hispanic other	44.3	24.7
Non-Hispanic	40.4	23.1

Diabetes at initiation, by race/
ethnicity
1999

Figure 2.18.

DIABETICS	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Alabama	34	55	72	65	87	95	107	123	110	125
Alaska	37	39	47	109	217	353	91	189	104	64
Arizona	79	118	142	130	134	157	149	179	180	176
Arkansas	45	71	70	69	85	107	114	115	107	117
California	80	91	91	90	110	118	123	144	154	154
Colorado	63	77	79	82	80	87	110	98	116	110
Connecticut	62	79	82	71	109	104	108	134	120	114
Delaware	66	77	79	77	92	96	98	96	109	129
District of Columbia	33	36	63	31	25	68	88	59	54	64
Florida	63	68	77	72	81	82	108	106	108	109
Georgia	62	72	81	75	90	127	149	113	117	126
Hawaii	90	40	51	64	108	96	91	100	94	85
Idaho	56	42	62	221	73	67	128	165	98	101
Illinois	58	72	71	73	96	106	112	116	122	124
Indiana	65	71	82	78	70	109	120	122	147	136
Iowa	68	77	81	97	116	125	148	131	149	141
Kansas	67	85	72	80	100	91	107	124	141	141
Kentucky	62	72	84	86	68	104	112	123	135	151
Louisiana	67	83	94	84	98	112	120	138	150	173
Maine	28	66	191	40	111	124	120	99	163	65
Maryland	63	73	81	72	75	90	109	120	120	125
Massachusetts	58	66	80	71	97	104	104	110	122	91
Michigan	71	79	88	82	102	109	129	133	142	137
Minnesota	86	84	86	111	112	112	113	125	121	110
Mississippi	54	70	82	69	101	118	119	126	137	146
Missouri	64	76	87	88	101	113	128	138	145	141
Montana	250	181	75	62	105	202	66	69	111	255
Nebraska	65	98	106	115	108	142	123	144	148	178
Nevada	65	74	65	73	95	118	77	109	123	141
New Hampshire	58	43	53	71	66	99	58	59	130	57
New Jersey	73	81	80	83	103	120	121	131	141	144
New Mexico	81	119	122	129	125	147	169	164	151	188
New York	57	62	69	67	81	88	103	112	112	117
North Carolina	61	76	78	84	102	111	129	122	131	121
North Dakota	67	66	98	700	302	307	73	229	97	69
Ohio	64	66	83	82	81	112	126	135	146	156
Oklahoma	78	80	101	97	101	121	116	131	161	145
Oregon	61	77	74	87	104	97	106	90	100	120
Pennsylvania	69	78	86	74	103	119	117	126	132	134
Rhode Island	83	61	83	72	106	105	129	120	144	115
South Carolina	64	79	82	79	106	144	176	115	133	128
South Dakota	38	353	289	80	80	119	115	157	200	136
Tennessee	50	71	84	74	94	106	108	119	117	132
Texas	98	105	114	120	133	139	154	169	182	179
Utah	53	74	73	134	92	138	106	129	153	124
Vermont	32	137	139	232	63	154	119	153	81	78
Virginia	51	65	73	73	83	88	105	125	126	121
Washington	73	85	99	90	84	94	97	107	106	112
West Virginia	70	87	90	85	99	135	145	154	152	185
Wisconsin	83	92	95	96	97	117	123	133	135	137
Wyoming	85	27	32	56	78	84	72	135	85	96

Incident rates of diabetic
ESRD patients
per million population, adjusted
for age, gender, & race

Table A.16.

