

# Reference section F

Transplantation: process



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Table F.1  
Renal Transplants: by Reporting Source

	USRDS						UNOSS						Annual Facility Surveys <sup>§</sup>				
	Deceased	Living related	Living distant/unrelated	Living unk	Unk	All	Deceased	Living related	Living distant/unrelated	Living unk	Unk	All	Deceased	Living donor	Living related	Living unrelated	All
1978	2,025	.	.	1,014	166	3,205	.	.	.	.	.	.	.	.	.	.	.
1979	2,320	.	.	960	288	3,568	.	.	.	.	.	.	.	.	.	.	.
1980	2,596	.	.	914	298	3,808	.	.	.	.	.	.	.	.	.	.	.
1981	2,873	.	.	1,155	221	4,249	.	.	.	.	.	.	.	.	.	.	.
1982	3,358	.	.	1,605	166	5,129	.	.	.	.	.	.	.	.	.	.	.
1983	4,008	.	.	1,701	205	5,914	.	.	.	.	.	.	.	.	.	.	.
1984	4,805	.	.	1,774	196	6,775	.	.	.	.	.	.	.	.	.	.	.
1985	5,343	.	.	1,955	240	7,538	.	.	.	.	.	.	.	.	.	.	.
1986	6,474	.	.	2,171	260	8,905	.	.	.	.	.	.	.	.	.	.	.
1987	6,669	.	.	2,105	207	8,981	.	.	.	.	.	.	.	.	.	.	.
1988	7,487	1,675	124	103	110	9,499	7,229	1,631	99	82	9,041	7,115	1,817	1,761	56	8,932	
1989	7,303	1,756	138	101	116	9,414	7,079	1,706	114	83	8,982	7,006	1,893	1,823	70	8,899	
1990	7,957	1,764	162	219	127	10,229	7,762	1,740	133	217	9,852	7,705	2,091	2,001	90	9,796	
1991	7,831	2,194	183	53	102	10,363	7,727	2,191	154	47	10,119	7,644	2,382	2,296	86	10,026	
1992	7,754	2,255	241	77	156	10,483	7,695	2,242	223	69	10,229	7,579	2,536	2,391	145	10,115	
1993	8,323	2,449	328	180	93	11,373	8,168	2,401	278	170	11,017	8,106	2,828	2,631	197	10,934	
1994	8,287	2,277	320	358	174	11,416	8,293	2,279	321	359	11,252	8,312	3,000	2,738	262	11,312	
1995	8,467	2,768	590	13	195	12,033	8,469	2,769	590	13	11,841	8,486	3,416	2,992	424	11,902	
1996	8,447	2,807	766	72	172	12,264	8,451	2,808	766	72	12,097	8,495	3,703	3,084	619	12,198	
1997	8,609	2,976	875	75	121	12,656	8,617	2,978	870	80	12,545	8,512	3,915	3,210	705	12,427	
1998	8,986	3,118	1,169	108	154	13,535	8,990	3,124	1,167	110	13,391	8,752	4,520	3,453	1,067	13,272	
1999	8,962	3,227	1,355	91	164	13,799	8,970	3,233	1,354	95	13,652	8,839	4,644	3,583	1,061	13,483	
2000	9,019	3,421	1,804	201	93	14,538	9,029	3,431	1,787	222	14,469	8,884	5,427	4,052	1,375	14,311	
2001	9,098	3,610	2,000	389	90	15,187	9,112	3,617	2,000	394	15,123	8,824	5,804	4,236	1,568	14,628	
2002	9,429	3,619	2,197	409	58	15,712	9,440	3,626	2,200	410	15,676	9,213	5,893	4,182	1,711	15,106	

Table F.2  
Renal Transplants: Recipients Age <18

by age, gender, race, ethnicity, donor type, & number of transplants

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	All
<1	13	*	11	*	11	*	*	*	12	*	*	*	93
1-5	116	121	149	96	112	137	140	115	137	107	151	138	1,519
6-10	165	125	145	140	149	151	144	156	146	127	142	158	1,748
11-17	348	352	391	438	457	425	409	395	468	400	423	464	4,970
Male	382	358	405	417	443	450	410	383	440	355	434	474	4,951
Female	260	244	291	262	286	271	287	291	323	284	287	293	3,379
White	507	476	554	508	553	552	517	501	589	481	550	575	6,363
Black	108	94	111	144	129	129	143	135	147	131	123	153	1,547
Native American	*	*	*	*	16	*	*	11	*	*	11	*	103
Asian	17	17	18	16	23	24	26	20	14	14	24	24	237
Other/unknown	*	*	*	*	*	*	*	*	*	*	13	*	80
†Hispanic					102	117	103	112	131	116	153	157	991
†Non-Hispanic					627	604	594	562	632	523	568	610	4,720
Deceased	290	283	302	363	322	326	307	287	356	281	286	325	3,728
Living	347	312	386	300	389	375	370	372	394	346	428	437	4,456
Unknown	*	*	*	16	18	20	20	15	13	12	*	*	146
1st transplant	532	519	613	567	640	629	623	586	679	575	667	684	7,314
2nd transplant	94	67	72	98	74	74	59	75	67	54	48	77	859
3rd transplant	13	15	*	13	11	14	14	12	16	*	*	*	137
4th transplant	*	*	*	*	*	*	*	*	*	.	*	*	20
5th transplant	.	.	.	.	.	.	.	.	.	.	.	.	.
All	642	602	696	679	729	721	697	674	763	639	721	767	8,330

Age is calculated as of the day of transplantation. §Data not collected prior to 1988.

USRDS counts include non-Medicare patients.

†CMS began collecting Hispanic ethnicity data in April 1995; cells for years prior to 1995 have therefore been left blank.

\*Values for cells with 10 or fewer patients are suppressed. " ." Zero values in this cell.

On our website: Renal Transplants, by gender, race, & age (F.a), Renal Transplants, by year, age, & donor type (F.b),

Renal Transplants grouped by gender, race, & age (F.c), Renal Transplants by donor type, donor race, & recipient race (F.d), &

Renal Transplants, by donor type, gender, age, & race (F.e).

Table F.3

**Renal Transplants: by Donor Type**

by age, gender, race, ethnicity, &amp; number of transplants

<b>ALL</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>All</b>
0-17	642	602	696	679	729	721	697	674	763	639	721	767	8,330
18-34	3,128	3,005	3,193	3,028	2,977	2,872	2,808	2,928	2,846	2,829	2,923	2,794	35,331
35-49	3,902	3,963	4,206	4,336	4,596	4,657	4,700	4,959	4,914	5,192	5,203	5,218	55,846
50-64	2,323	2,455	2,800	2,853	3,116	3,328	3,726	4,051	4,310	4,656	5,044	5,389	44,051
65+	363	457	475	520	615	686	725	923	965	1,222	1,296	1,542	9,789
Unknown	*	*	*	.	.	.	.	.	*	.	.	*	12
Male	6,204	6,174	6,801	6,875	7,307	7,298	7,555	7,997	8,203	8,595	8,995	9,318	91,322
Female	4,153	4,307	4,567	4,539	4,723	4,966	5,100	5,538	5,596	5,942	6,192	6,394	62,017
Unknown	*	*	*	*	*	.	*	.	.	*	.	.	20
White	7,806	7,796	8,514	8,255	8,852	8,953	9,148	9,806	9,934	10,482	10,851	11,234	111,631
Black	2,122	2,182	2,371	2,602	2,630	2,700	2,834	2,978	3,072	3,215	3,439	3,580	33,725
Native American	105	116	109	140	132	148	148	152	180	153	154	149	1,686
Asian	297	357	344	400	383	434	490	537	558	605	646	659	5,710
Other/unknown	33	32	35	19	36	29	36	62	55	83	97	90	607
†Hispanic					1,159	1,213	1,326	1,562	1,575	1,709	1,816	2,002	12,362
†Non-Hispanic					10,874	11,051	11,330	11,973	12,224	12,829	13,371	13,710	97,362
1st transplant	9,011	9,170	10,099	10,058	10,574	10,851	11,207	11,946	12,256	12,861	13,456	13,900	135,389
2nd transplant	1,166	1,111	1,111	1,182	1,266	1,192	1,242	1,350	1,311	1,443	1,472	1,551	15,397
3rd transplant	165	181	142	153	156	189	183	206	199	202	221	223	2,220
4th transplant	20	20	18	17	29	27	19	30	29	30	33	32	304
5th transplant	*	*	*	*	*	*	*	*	*	*	*	*	45
6th transplant	.	.	.	.	.	.	.	.	.	.	*	*	*
7th transplant	.	.	.	*	.	.	.	.	.	.	.	.	*
All	10,363	10,483	11,373	11,416	12,033	12,264	12,656	13,535	13,799	14,538	15,187	15,712	153,359
<b>DECEASED DONOR</b>													
0-17	290	283	302	363	322	326	307	287	356	281	286	325	3,728
18-34	2,129	2,015	2,083	1,907	1,897	1,697	1,640	1,668	1,566	1,539	1,482	1,438	21,061
35-49	3,093	3,053	3,241	3,271	3,351	3,331	3,344	3,397	3,273	3,233	3,174	3,185	38,946
50-64	1,986	2,020	2,277	2,290	2,393	2,541	2,743	2,905	3,030	3,088	3,247	3,463	31,983
65+	329	382	419	456	504	552	575	729	736	878	909	1,018	7,487
Unknown	*	*	*	.	.	.	.	.	*	.	.	.	*
Male	4,749	4,641	4,998	5,069	5,251	5,098	5,195	5,396	5,379	5,413	5,449	5,632	62,270
Female	3,077	3,111	3,322	3,217	3,213	3,349	3,414	3,590	3,583	3,606	3,649	3,797	40,928
Unknown	*	*	*	*	*	.	.	.	.	.	.	.	14
White	5,712	5,563	6,045	5,768	5,986	5,882	5,901	6,161	6,117	6,064	6,037	6,195	71,431
Black	1,772	1,794	1,913	2,119	2,113	2,128	2,230	2,306	2,306	2,426	2,524	2,651	26,282
Native American	81	86	78	99	84	96	100	108	122	113	87	103	1,157
Asian	241	290	263	293	271	325	365	387	394	388	408	437	4,062
Other/unknown	25	21	24	*	13	16	13	24	23	28	42	43	280
†Hispanic					761	763	826	996	995	1,023	1,095	1,221	7,680
†Non-Hispanic					7,706	7,684	7,783	7,990	7,967	7,996	8,003	8,208	63,337
1st transplant	6,722	6,680	7,319	7,237	7,367	7,399	7,521	7,844	7,859	7,831	7,974	8,277	90,030
2nd transplant	954	899	877	913	940	882	923	962	932	1,016	956	982	11,236
3rd transplant	137	157	111	116	128	141	143	154	147	145	143	144	1,666
4th transplant	17	17	14	17	25	20	18	23	20	25	20	24	240
5th transplant	*	*	*	*	*	*	*	*	*	*	*	.	37
6th transplant	.	.	.	.	.	.	.	.	.	.	*	*	*
7th transplant	.	.	.	.	.	.	.	.	.	.	.	.	*
All	7,831	7,754	8,323	8,287	8,467	8,447	8,609	8,986	8,962	9,019	9,098	9,429	103,212

Age is calculated as of the day of transplantation.

†CMS began collecting Hispanic ethnicity data in April 1995; cells for years prior to 1995 have therefore been left blank.

\*Values for cells with 10 or fewer patients are suppressed.

." Zero values in this cell.



Table F.3 (continued)

**Renal Transplants: by Donor Type**

by age, gender, race, ethnicity, &amp; number of transplants

<b>LIVING RELATED</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>All</b>
0-17	326	289	352	274	346	336	319	315	322	283	355	355	3,872
18-34	924	879	1,013	995	909	973	945	974	992	934	1,032	959	11,529
35-49	712	783	802	877	916	941	978	1,028	1,053	1,189	1,242	1,183	11,704
50-64	291	349	456	436	525	538	703	769	800	985	1,111	1,173	8,136
65+	21	49	47	53	85	90	108	141	155	251	256	352	1,608
Unknown	*	.	*	.	.	.	.	.	.	.	.	*	*
Male	1,300	1,305	1,569	1,507	1,558	1,634	1,729	1,781	1,915	2,022	2,272	2,308	20,900
Female	974	1,044	1,101	1,128	1,223	1,244	1,324	1,446	1,407	1,619	1,724	1,716	15,950
Unknown	*	.	*	.	.	.	.	.	.	*	.	.	*
White	1,894	1,935	2,168	2,107	2,238	2,333	2,452	2,576	2,612	2,885	3,138	3,204	29,542
Black	300	318	400	404	407	423	463	503	546	564	637	622	5,587
Native American	21	28	26	39	37	42	34	26	38	28	45	28	392
Asian	54	60	71	79	86	73	91	99	109	133	139	143	1,137
Other/unknown	*	*	*	*	13	*	13	23	17	32	37	27	196
†Hispanic					309	363	401	429	428	496	522	576	3,524
†Non-Hispanic					2,472	2,515	2,652	2,798	2,894	3,146	3,474	3,448	23,399
1st transplant	2,099	2,180	2,476	2,420	2,546	2,644	2,814	2,968	3,049	3,339	3,636	3,648	33,819
2nd transplant	155	150	172	186	212	200	210	226	234	265	303	322	2,635
3rd transplant	18	16	20	28	19	31	27	29	32	35	48	51	354
4th transplant	*	*	*	.	*	*	*	*	*	*	*	*	40
5th transplant	.	.	*	*	*	.	*	.	.	.	.	*	*
6th transplant	.	.	.	.	.	.	.	.	.	.	.	.	.
7th transplant	.	.	.	.	.	.	.	.	.	.	.	.	.
All	2,275	2,349	2,672	2,635	2,781	2,878	3,053	3,227	3,322	3,642	3,996	4,024	36,854
<b>LIVING DISTANT/UNRELATED</b>													
0-17	21	23	34	26	43	39	51	57	72	63	73	82	584
18-29	40	68	71	80	112	159	192	245	255	334	390	387	2,333
30-44	65	76	123	132	257	322	345	479	524	742	753	830	4,648
45-59	27	51	50	76	157	212	248	341	436	557	663	733	3,551
60+	*	*	*	*	21	35	37	46	64	88	124	169	605
Unknown													
Male	92	142	175	196	377	465	556	728	820	1,105	1,221	1,343	7,220
Female	63	82	110	124	213	302	316	440	531	679	782	858	4,500
Unknown	.	.	.	.	.	.	*	.	.	.	.	.	*
White	132	194	239	259	499	624	711	963	1,089	1,469	1,609	1,791	9,579
Black	21	24	35	43	63	105	115	137	188	209	269	301	1,510
Native American	.	*	*	*	*	*	13	17	16	12	22	17	120
Asian	*	*	*	15	17	27	28	42	51	77	91	76	436
Other/unknown	*	*	*	*	*	*	*	*	*	17	12	16	76
†Hispanic					63	65	84	118	133	180	197	202	1,042
†Non-Hispanic					527	702	789	1,050	1,218	1,604	1,806	1,999	9,695
1st transplant	137	204	252	284	531	691	800	1,047	1,237	1,614	1,770	1,938	10,505
2nd transplant	17	20	27	33	56	68	68	107	102	150	201	228	1,077
3rd transplant	*	.	*	*	*	*	*	12	*	18	28	26	119
4th transplant	.	.	.	.	.	.	.	*	*	*	*	*	17
5th transplant	.	.	.	.	.	.	.	.	.	.	.	.	*
6th transplant	.	.	.	.	.	.	.	.	.	.	.	.	*
7th transplant	.	.	.	*	.	.	.	.	.	.	.	.	.
All	155	224	285	320	590	767	873	1,168	1,351	1,784	2,003	2,201	11,721

Age is calculated as of the day of transplantation.

†CMS began collecting Hispanic ethnicity data in April 1995; cells for years prior to 1995 have therefore been left blank.

\*Values for cells with 10 or fewer patients are suppressed.

".": Zero values in this cell.

Table F.4

**Renal Transplants: by Donor Type & Primary Diagnosis**

Donor type	Disease group	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Deceased	Diabetes	1,814	1,781	2,109	2,125	2,235	2,296	2,380	2,559	2,526	2,561	2,664	2,844
	Hypertension	1,305	1,395	1,422	1,565	1,527	1,510	1,546	1,567	1,520	1,562	1,733	1,767
	Glomerulonephritis	1,952	1,888	1,918	1,879	1,944	1,916	1,940	2,063	2,034	2,063	1,944	2,081
	Cystic kidney	600	642	654	569	675	669	733	703	720	738	707	722
	Other urologic	175	128	165	144	143	157	155	191	173	187	188	182
	Other cause	1,213	1,184	1,200	1,172	1,229	1,220	1,181	1,263	1,255	1,224	1,242	1,248
	Unknown cause	495	521	598	642	557	484	506	424	474	404	412	415
	Missing cause	277	215	257	191	157	195	168	216	260	280	208	170
	All	7,831	7,754	8,323	8,287	8,467	8,447	8,609	8,986	8,962	9,019	9,098	9,429
Living	Diabetes	511	476	575	582	649	754	773	926	918	1,114	1,304	1,397
	Hypertension	263	320	351	393	421	460	487	556	574	732	753	872
	Glomerulonephritis	692	726	805	822	948	1,053	1,169	1,232	1,273	1,412	1,553	1,624
	Cystic kidney	120	135	146	148	207	244	258	337	334	433	527	558
	Other urologic	76	85	95	78	105	121	122	130	153	184	199	182
	Other cause	500	512	598	564	699	718	787	815	862	968	1,092	1,085
	Unknown cause	164	213	262	259	231	187	200	216	253	255	302	338
	Missing cause	104	106	125	109	111	108	130	183	306	328	269	169
	All	2,430	2,573	2,957	2,955	3,371	3,645	3,926	4,395	4,673	5,426	5,999	6,225
Total	Diabetes	2,325	2,257	2,684	2,707	2,884	3,050	3,153	3,485	3,444	3,675	3,968	4,241
	Hypertension	1,568	1,715	1,773	1,958	1,948	1,970	2,033	2,123	2,094	2,294	2,486	2,639
	Glomerulonephritis	2,644	2,614	2,723	2,701	2,892	2,969	3,109	3,295	3,307	3,475	3,497	3,705
	Cystic kidney	720	777	800	717	882	913	991	1,040	1,054	1,171	1,234	1,280
	Other urologic	251	213	260	222	248	278	277	321	326	371	387	364
	Other cause	1,713	1,696	1,798	1,736	1,928	1,938	1,968	2,078	2,117	2,192	2,334	2,333
	Unknown cause	659	734	860	901	788	671	706	640	727	659	714	753
	Missing cause	381	321	382	300	268	303	298	399	566	608	477	339
	All	10,261	10,327	11,280	11,242	11,838	12,092	12,535	13,381	13,635	14,445	15,097	15,654

Table F.5

**Percent Reactive Antibodies (PRA) for Selected Years**

DECEASED DONOR	1996	1997	1998	1999	2000	2001	2002	All
<b>Peak PRA</b>								
<20%	6,506	6,656	7,078	6,856	7,014	7,208	7,397	48,715
20-39%	588	617	551	522	512	451	476	3,717
40-59%	332	325	308	317	320	294	341	2,237
60%+	746	827	805	914	972	934	971	6,169
Missing	275	184	244	353	201	211	244	1,712
<b>Most recent PRA</b>								
<20%	7,376	7,589	7,972	7,663	7,849	7,895	8,070	54,414
20-39%	310	321	308	308	307	293	295	2,142
40-59%	171	213	189	217	222	211	219	1,442
60%+	353	347	354	386	431	460	527	2,858
Missing	237	139	163	388	210	239	318	1,694
All	8,447	8,609	8,986	8,962	9,019	9,098	9,429	62,550
<b>LIVING DONOR</b>								
<b>Peak PRA</b>								
<20%	3,065	3,319	3,667	3,869	4,700	5,210	5,326	29,156
20-39%	173	189	205	191	189	250	290	1,487
40-59%	89	84	89	90	107	125	131	715
60%+	132	150	137	154	219	244	265	1,301
Missing	186	184	297	369	211	170	213	1,630
<b>Most recent PRA</b>								
<20%	3,261	3,552	3,900	4,057	4,887	5,431	5,572	30,660
20-39%	103	112	121	106	113	164	171	890
40-59%	49	43	64	52	79	80	81	448
60%+	59	66	70	80	107	115	140	637
Missing	173	153	240	378	240	209	261	1,654
All	3,645	3,926	4,395	4,673	5,426	5,999	6,225	34,289

Recipients for whom the donor type is unknown are excluded.



Table F.6  
**Cytomegalovirus (CMV) Antibody Status for Selected Years**

by recipient & donor CMV status

<b>DECEASED DONOR</b>									
<b>Recipient CMV</b>	<b>Donor CMV</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>All</b>
Positive	Positive	2,991	3,083	3,302	3,183	2,970	2,890	2,997	21,416
	Negative	1,849	1,831	1,911	1,805	1,688	1,779	1,937	12,800
	Unknown	75	110	118	216	624	670	781	2,594
Negative	Positive	1,668	1,565	1,685	1,681	1,447	1,424	1,445	10,915
	Negative	1,212	1,246	1,221	1,158	1,132	1,094	1,091	8,154
	Unknown	56	56	70	95	273	456	459	1,465
Unknown	Positive	346	429	408	515	462	421	363	2,944
	Negative	233	263	248	283	292	227	235	1,781
	Unknown	17	26	23	26	131	137	121	481
<b>LIVING</b>									
Positive	Positive	18	70	200	817	1,522	1,875	1,965	6,467
	Negative	*	35	114	464	861	980	1,061	3,521
	Unknown	1,753	1,910	1,964	1,069	379	401	397	7,873
Negative	Positive	*	30	94	388	773	860	854	3,005
	Negative	*	36	108	559	1,129	1,208	1,299	4,344
	Unknown	1,533	1,518	1,606	912	228	270	244	6,311
Unknown	Positive	*	17	46	106	158	112	99	543
	Negative	*	13	48	112	152	89	96	518
	Unknown	311	297	215	246	224	204	210	1,707

Table F.7  
**Cold Ischemia Time (hours): Deceased Donor Transplants for Selected Years**

<b>COUNTS</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>All</b>
0-12	1,390	1,549	1,630	1,650	1,722	1,883	2,161	11,985
13-24	4,396	4,499	4,428	4,187	4,067	3,935	4,261	29,773
25-36	2,072	1,866	1,931	1,680	1,519	1,403	1,319	11,790
37+	327	252	272	229	203	205	199	1,687
Unknown	262	443	725	1,216	1,508	1,672	1,489	7,315
<b>PERCENTAGES</b>								
0-12	16.5	18.0	18.1	18.4	19.1	20.7	22.9	19.2
13-24	52.0	52.3	49.3	46.7	45.1	43.3	45.2	47.6
25-36	24.5	21.7	21.5	18.7	16.8	15.4	14.0	18.8
37+	3.9	2.9	3.0	2.6	2.3	2.3	2.1	2.7
Unknown	3.1	5.1	8.1	13.6	16.7	18.4	15.8	11.7
All	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

\*Values for cells with 10 or fewer patients are suppressed.

Table F.8

**Transplant Rate: by Donor Type & Age***per 100 patient years on dialysis*

<b>RATE</b>		<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
All	0-17	47.7	42.2	47.0	44.8	44.6	43.1	41.7	41.2	46.3	36.9	38.9	39.8
	18-34	21.3	19.3	19.7	17.6	16.8	15.8	15.0	15.2	14.8	14.3	14.5	13.8
	35-49	13.1	12.2	11.8	11.2	10.8	10.1	9.7	9.8	9.1	9.3	9.1	8.8
	50-64	5.5	5.3	5.6	5.2	5.2	5.2	5.4	5.4	5.3	5.3	5.4	5.5
	65+	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.9	0.8	1.0	1.0	1.1
	All	6.9	6.3	6.2	5.7	5.6	5.3	5.1	5.1	4.9	4.8	4.8	4.8
Deceased	0-17	21.7	19.7	19.8	23.7	19.6	19.9	18.5	17.3	21.4	15.9	15.1	16.6
	18-34	14.4	12.8	12.8	11.0	10.7	9.2	8.7	8.7	8.1	7.7	7.3	7.0
	35-49	10.4	9.4	9.0	8.4	7.9	7.2	6.9	6.7	6.1	5.8	5.5	5.4
	50-64	4.7	4.3	4.6	4.1	4.0	4.0	4.0	3.8	3.7	3.5	3.5	3.5
	65+	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.7	0.7	0.7
	All	5.2	4.7	4.6	4.2	3.9	3.6	3.5	3.4	3.2	3.0	2.9	2.9
Living	0-17	25.6	22.0	26.6	19.9	24.0	22.0	22.0	23.0	24.1	20.3	23.4	22.9
	18-34	6.7	6.1	6.6	6.3	5.8	6.3	6.2	6.3	6.5	6.5	7.1	6.7
	35-49	2.7	2.7	2.7	2.6	2.8	2.8	2.8	3.0	3.0	3.5	3.5	3.4
	50-64	0.8	0.9	1.0	1.0	1.1	1.2	1.4	1.5	1.5	1.8	1.9	1.9
	65+	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4
	All	1.6	1.5	1.6	1.5	1.6	1.6	1.6	1.7	1.7	1.8	1.9	1.9
<b>COUNT</b>													
All	0-17	614	570	650	645	678	675	653	646	721	594	673	715
	18-34	3,041	2,874	3,088	2,906	2,871	2,767	2,698	2,791	2,772	2,737	2,819	2,710
	35-49	3,920	4,018	4,205	4,364	4,616	4,615	4,671	4,939	4,837	5,133	5,158	5,138
	50-64	2,378	2,503	2,897	2,920	3,177	3,456	3,842	4,146	4,416	4,753	5,143	5,498
	65+	406	517	530	581	691	751	792	1,013	1,058	1,328	1,394	1,650
	All	10,359	10,482	11,370	11,416	12,033	12,264	12,656	13,535	13,804	14,545	15,187	15,711
Deceased	0-17	279	266	274	342	298	311	290	271	333	255	261	299
	18-34	2,054	1,916	2,018	1,817	1,816	1,616	1,560	1,590	1,521	1,482	1,424	1,385
	35-49	3,096	3,081	3,213	3,290	3,351	3,284	3,304	3,369	3,215	3,180	3,131	3,116
	50-64	2,033	2,059	2,349	2,329	2,438	2,635	2,830	2,966	3,086	3,151	3,315	3,535
	65+	366	431	468	509	564	601	625	790	807	951	967	1,094
	All	7,828	7,753	8,322	8,287	8,467	8,447	8,609	8,986	8,962	9,019	9,098	9,429
Living	0-17	330	297	368	287	364	345	345	360	375	327	405	411
	18-34	952	916	1,044	1,047	995	1,108	1,107	1,162	1,219	1,236	1,376	1,315
	35-49	794	887	955	1,016	1,194	1,270	1,333	1,513	1,559	1,922	1,994	2,002
	50-64	324	409	528	539	698	781	981	1,145	1,279	1,569	1,804	1,943
	65+	29	64	60	66	120	141	160	215	241	372	420	553
	All	2,429	2,573	2,955	2,955	3,371	3,645	3,926	4,395	4,673	5,426	5,999	6,224

Age is calculated as of December 31 of the year.  
Patients with unknown age are excluded.





Table F.9

**First Renal Transplant Rates: by Recipient Age***per 100 patient years at risk*

Age of recipient	Modality		
	All dialysis	Hemodialysis	CAPD/CCPD
0-17	33.9	32.6	36.0
18-34	12.7	12.0	17.5
35-49	7.6	7.0	12.8
50-64	4.5	4.1	8.3
All <65	6.6	5.9	12.2

Includes all patients who have reached day 91 of ESRD by the end of the year.  
Rates are estimated based on a statistical model to improve rate stability.

Table F.10

**Renal Transplant Rates: by Transplant Type**

per 100 patient years on dialysis, 1999-2002 combined, by age, gender, &amp; race

ALL		Rate					Count				
Age	Gender	White	Black	Native		All	White	Black	Native		All
				American	Asian				American	Asian	
0-17	Male	44.4	24.8	10.5	36.9	37.9	689	170	*	32	895
	Female	52.6	29.0	60.6	29.7	45.2	1,025	243	19	27	1,314
	All	49.0	27.1	33.1	33.2	41.9	1,714	413	23	59	2,209
18-34	Male	21.8	8.3	10.3	16.3	15.3	3,106	1,090	45	228	4,469
	Female	22.0	8.7	9.3	14.6	15.6	3,884	1,365	35	217	5,501
	All	21.9	8.5	9.9	15.4	15.5	6,990	2,455	80	445	9,970
35-49	Male	14.7	4.5	5.7	11.2	9.5	5,650	1,835	79	401	7,965
	Female	15.2	4.6	4.7	11.0	9.7	8,356	2,651	79	417	11,503
	All	15.0	4.5	5.2	11.1	9.6	14,006	4,486	158	818	19,468
50-64	Male	7.3	2.8	3.2	5.5	5.1	5,746	1,934	119	361	8,160
	Female	8.9	3.4	4.9	6.9	6.4	8,914	2,766	169	504	12,353
	All	8.2	3.1	4.0	6.2	5.8	14,660	4,700	288	865	20,513
65+	Male	1.0	0.6	1.0	0.9	0.9	1,811	568	43	117	2,539
	Female	1.6	1.0	1.8	1.4	1.5	3,319	695	44	164	4,222
	All	1.4	0.7	1.3	1.2	1.2	5,130	1,263	87	281	6,761
All	Male	5.5	2.5	3.0	4.6	4.2	17,002	5,597	290	1,139	24,028
	Female	6.7	3.4	4.3	5.5	5.4	25,498	7,720	346	1,329	34,893
	All	6.2	3.0	3.6	5.1	4.9	42,500	13,317	636	2,468	58,921
<b>DECEASED DONOR</b>											
	Male	15.8	15.0	10.5	23.1	15.7	245	103	*	20	372
	Female	17.9	16.7	44.7	12.1	17.6	348	140	14	11	513
	All	16.9	16.0	25.9	17.4	16.8	593	243	18	31	885
18-34	Male	10.3	5.5	5.7	9.6	8.0	1,469	720	25	135	2,349
	Female	9.9	5.8	5.3	6.8	7.9	1,755	903	20	101	2,779
	All	10.1	5.6	5.5	8.2	8.0	3,224	1,623	45	236	5,128
35-49	Male	8.3	3.3	3.5	7.2	5.7	3,194	1,329	49	258	4,830
	Female	9.0	3.6	3.0	7.0	6.2	4,934	2,052	51	268	7,305
	All	8.7	3.4	3.3	7.1	6.0	8,128	3,381	100	526	12,135
50-64	Male	4.4	2.1	2.1	3.9	3.3	3,490	1,441	80	257	5,268
	Female	5.5	2.7	3.3	5.0	4.2	5,501	2,235	115	365	8,216
	All	5.0	2.4	2.7	4.5	3.8	8,991	3,676	195	622	13,484
65+	Male	0.7	0.4	0.7	0.7	0.6	1,229	424	31	85	1,769
	Female	1.1	0.8	1.4	1.1	1.0	2,248	560	36	127	2,971
	All	0.9	0.6	1.0	0.9	0.8	3,477	984	67	212	4,740
All	Male	3.1	1.8	1.9	3.1	2.6	9,627	4,017	189	755	14,588
	Female	3.9	2.6	2.9	3.6	3.4	14,786	5,890	236	872	21,784
	All	3.5	2.2	2.4	3.3	3.0	24,413	9,907	425	1,627	36,372

Age is calculated as of December 31 of the 2001.

Patients of unknown age or gender, or of race other than white, black, Native American, or Asian, are excluded.

\*Values for cells with 10 or fewer patients are suppressed.



Table F.10 (continued)

**Renal Transplant Rates: by Transplant Type**

per 100 patient years on dialysis, 1999-2002 combined, by age, gender, &amp; race

LIVING DONOR		Rate					Count				
Age	Gender	White	Black	Native		All	White	Black	Native		All
				American	Asian				American	Asian	
0-17	Male	27.9	9.5	0.0	13.8	21.6	434	65	.	12	511
	Female	34.1	12.1	16.0	17.6	27.0	663	101	*	16	785
	All	31.3	10.9	7.2	15.8	24.6	1,097	166	*	28	1,296
18-34	Male	11.3	2.8	4.6	6.4	7.1	1,610	365	20	90	2,085
	Female	11.9	2.9	3.5	7.6	7.6	2,103	455	13	113	2,684
	All	11.7	2.9	4.1	7.0	7.4	3,713	820	33	203	4,769
35-49	Male	6.3	1.2	2.2	4.0	3.7	2,418	493	30	141	3,082
	Female	6.1	1.0	1.7	3.7	3.5	3,360	588	28	141	4,117
	All	6.2	1.1	1.9	3.8	3.6	5,778	1,081	58	282	7,199
50-64	Male	2.8	0.7	1.0	1.6	1.8	2,223	471	38	103	2,835
	Female	3.3	0.6	1.6	1.9	2.1	3,358	522	54	136	4,070
	All	3.1	0.7	1.3	1.7	2.0	5,581	993	92	239	6,905
65+	Male	0.3	0.1	0.2	0.2	0.3	570	143	*	31	754
	Female	0.5	0.2	0.3	0.3	0.4	1,057	132	*	36	1,233
	All	0.4	0.2	0.3	0.3	0.3	1,627	275	18	67	1,987
All	Male	2.4	0.7	1.0	1.5	1.6	7,255	1,537	98	377	9,267
	Female	2.8	0.8	1.3	1.8	2.0	10,541	1,798	108	442	12,889
	All	2.6	0.7	1.2	1.7	1.8	17,796	3,335	206	819	22,156

Age is calculated as of December 31 of the 2001.

Patients of unknown age or gender, or of race other than white, black, Native American, or Asian, are excluded.

\*Values for cells with 10 or fewer patients are suppressed.

"." Zero values in this cell.

Table F.11

**Bayesian First Renal Transplant Ratios: by State/Territory**

	<b>2000-2002</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
Alabama	0.81	0.98	0.73	0.73
Alaska	1.18	1.03	1.22	1.32
Arizona	0.94	0.85	0.88	1.03
Arkansas	0.86	0.92	0.78	0.90
California	0.90	0.88	0.89	0.85
Colorado	1.27	1.40	1.20	1.29
Connecticut	1.01	1.05	1.00	0.98
Delaware	1.30	1.11	1.36	1.48
District of Columbia	0.51	0.55	0.49	0.64
Florida	0.92	0.89	0.98	0.83
Georgia	0.61	0.64	0.64	0.58
Hawaii	0.73	0.76	0.69	0.89
Idaho	1.55	1.97	1.14	1.34
Illinois	1.14	1.15	1.08	1.13
Indiana	1.16	1.09	1.04	1.24
Iowa	2.09	2.30	1.82	2.07
Kansas	1.07	1.00	1.16	1.15
Kentucky	1.10	0.94	1.28	1.17
Louisiana	0.63	0.70	0.56	0.67
Maine	1.77	1.72	2.11	1.38
Maryland	1.38	1.67	1.43	1.01
Massachusetts	1.68	1.44	1.65	1.61
Michigan	1.12	1.07	1.10	1.20
Minnesota	2.25	2.50	2.79	1.97
Mississippi	0.57	0.47	0.62	0.60
Missouri	0.96	1.17	0.91	0.80
Montana	1.86	1.90	1.70	1.66
Nebraska	1.49	1.49	1.47	1.55
Nevada	1.24	1.27	1.39	1.22
New Hampshire	1.52	1.24	1.60	1.41
New Jersey	1.04	1.13	0.96	0.96
New Mexico	0.77	0.91	0.66	0.77
New York	0.84	0.81	0.84	0.86
North Carolina	0.65	0.67	0.59	0.69
North Dakota	2.42	1.83	2.47	2.36
Ohio	1.21	1.20	1.25	1.26
Oklahoma	0.99	0.96	1.02	0.94
Oregon	1.62	1.33	1.76	1.71
Pennsylvania	1.46	1.22	1.51	1.78
Rhode Island	2.71	2.17	2.29	2.81
South Carolina	0.69	0.72	0.80	0.53
South Dakota	1.33	1.30	1.06	1.44
Tennessee	0.91	0.83	0.82	1.06
Texas	0.87	0.87	0.86	0.92
Utah	1.99	2.06	1.98	1.87
Vermont	1.36	1.53	1.12	1.08
Virginia	0.88	0.79	0.94	0.87
Washington	1.58	1.62	1.55	1.51
West Virginia	1.41	1.36	1.18	1.58
Wisconsin	1.93	1.77	1.89	2.18
Wyoming	1.44	1.58	1.32	1.11
Puerto Rico & Virgin Islands	0.67	0.61	0.76	0.62
All	1.00	1.00	1.00	1.00

Includes only dialysis patients who have reached day 91 of ESRD by the end of the year.



Table F.12

**Median Time in Days to First Renal Transplant: Deceased Donors**

from first ESRD service day, by age, gender, race, ethnicity, blood type, HLA mismatches, &amp; peak PRA

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
0-17	312	350	370	388	330	339	401	490	367	424	489	541
18-34	494	500	540	565	604	619	696	727	813	847	862	954
35-49	502	565	570	614	628	643	740	735	802	862	923	989
50-64	614	609	634	703	684	767	793	813	884	899	978	1,014
65+	669	678	669	802	690	763	802	828	883	864	940	1,020
Male	516	561	577	619	623	667	729	753	826	867	922	965
Female	544	560	583	653	651	690	761	777	810	835	908	997
White	461	482	510	533	548	578	623	636	684	724	760	817
Black	765	822	855	860	884	972	1,066	1,080	1,182	1,247	1,317	1,382
Other race	566	593	658	810	803	743	918	843	1,004	1,050	1,047	1,259
†Hispanic					778	811	865	945	1,000	1,082	1,166	1,197
†Non-Hispanic					616	660	731	732	796	828	881	946
O	636	643	658	723	691	772	826	845	913	989	1,059	1,126
A	430	457	486	514	543	576	632	635	707	749	779	821
B	665	721	761	810	841	901	1,065	1,014	1,047	1,022	1,196	1,278
AB	364	343	366	464	465	467	442	516	539	612	576	702
A1	395	3	0	92	405	511	1,048	601	683	651	605	600
A2	1,012	617	367	458	148	528	.	1,015	572	501	632	615
A1B	252	1,027	506	.	223	.	165	717	0	79	445	500
A2B	.	1,979	.	.	.	.	.	.	984	612	614	1,008
0 HLA mismatches	500	447	471	446	471	563	587	557	571	646	652	712
1	455	527	506	547	535	604	666	631	616	653	753	764
2	472	550	527	591	643	602	676	729	774	836	886	849
3	552	611	613	652	643	684	725	765	839	863	898	969
4	577	581	615	662	681	745	823	803	872	879	958	1,039
5	501	519	587	629	624	705	806	811	908	946	1,030	1,066
6	513	541	583	697	700	690	747	846	902	941	1,006	1,092
PRA ≤ 50%	508	545	568	612	611	656	717	733	798	844	889	962
PRA > 50%	995	1,008	978	1,034	1,032	1,114	1,265	1,205	1,129	1,222	1,296	1,323
All	528	560	578	633	631	675	741	761	820	856	918	976

Patients of unknown age or gender are excluded.

Age is calculated as of the day of transplantation.

†CMS began collecting Hispanic ethnicity data in April 1995; cells for years prior to 1996 have therefore been left blank.

"." Zero values in this cell.

Table F.13

**Median Time in Days to First Renal Transplant: Living Donors***from first ESRD service day, by age, gender, race, ethnicity, blood type, HLA mismatches, & peak PRA*

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
0-17	60	106	62	83	104	109	114	157	121	87	134	119
18-34	151	166	179	202	211	209	233	238	235	238	261	246
35-49	188	176	208	229	226	221	237	224	207	239	244	248
50-64	241	222	276	300	269	287	277	287	289	287	328	320
65+	282	341	320	399	343	444	320	342	379	347	358	357
Male	156	181	179	220	216	209	224	243	230	241	266	272
Female	169	167	204	217	216	250	259	245	247	257	285	258
White	140	161	169	189	191	199	202	212	202	223	225	234
Black	299	239	295	357	364	350	452	406	391	380	478	481
Other race	223	225	281	284	214	284	309	296	308	295	384	284
†Hispanic					297	357	396	388	397	413	427	418
†Non-Hispanic					204	208	217	223	211	225	246	245
O	183	181	211	239	226	232	262	254	255	294	302	283
A	133	149	164	190	204	208	204	211	218	222	251	230
B	211	257	225	267	220	280	283	286	251	242	299	348
AB	145	166	165	147	176	188	239	286	194	142	195	227
A1	479	52	176	89	.	34	498	368	115	130	170	285
A2	.	.	345	74	40	.	285	423	109	112	145	301
A1B	.	83	.	272	.	.	460	.	310	.	.	142
A2B	.	.	1,011	.	.	.	.	.	131	8	.	.
0 HLA mismatches	139	138	181	160	202	184	204	186	206	188	216	214
1	153	190	196	195	211	223	262	239	211	241	240	307
2	153	176	213	245	210	239	200	231	233	259	266	270
3	170	181	170	226	203	213	256	253	232	236	266	260
4	223	152	217	248	235	254	254	246	249	243	263	244
5	243	197	224	295	309	273	273	267	258	282	287	267
6	286	320	220	191	269	209	258	301	278	301	363	321
PRA ≤ 50%	161	172	183	214	204	220	230	236	231	240	266	266
PRA > 50%	266	297	398	450	510	393	519	481	455	426	612	358
All	161	175	190	218	216	224	239	245	236	247	273	266

Patients of unknown age or gender are excluded.

Age is calculated as of the day of transplantation.

†CMS began collecting Hispanic ethnicity data in April 1995; cells for years prior to 1996 have therefore been left blank.

"." Zero values in this cell.

