

# 12



*Mesa Verde National Park, Colorado*

## **INTERNATIONAL COMPARISONS**

344	worldwide view of the incidence of ESRD
346	incidence of end-stage renal disease
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This international chapter has expanded each year as more countries participate in the collaborative effort to collate data for the public health surveillance of end-stage renal disease. This year, we report data from 41 regions and countries which have graciously sent data to the USRDS. Such information not only allows for international comparisons, but provides a context for data on the multiple ethnic and racial groups which constitute the diverse population of the U.S. The USRDS is well aware of the considerable challenges each country faces in gathering its data, and sincerely thanks the registries and providers for their efforts.

Reported rates of incident ESRD across the globe show important trends; rates have slowed in some countries, while rising or remaining stable in others. The U.S., Taiwan, and Japan continue to have some of the highest rates, at 369, 361, and 288 per million population in 2010. In Mexico, rates in Morelos (2009) and Jalisco reached 597 and 425, respectively.

In Taiwan, the prevalence of ESRD reached 2,584 per million in 2010, while rates of 2,260 and 1,870 were reported in Japan and the U.S.

More than one in two new ESRD patients in Jalisco (Mexico), Singapore, Malaysia, Morelos (Mexico), and New Zealand are reported to have diabetes. In Taiwan, Malaysia, and the United States, rates of diabetes in patients age 65–74 were 771, 767, and 609 per million population in 2010, and rates for U.S. patients age 75 or older were 543 per million.

Hemodialysis continues to be the most common mode of therapy worldwide, evidenced by data showing that, in over 70 percent of reporting countries, at least 80 percent of patients are on this mode of therapy. In Hong Kong, Mexico (Morelos, and Jalisco), in contrast, peritoneal dialysis is used by 76, 58, and 51 percent of patients, respectively. And home dialysis therapy is provided to 17.7 and 9.1 percent of patients in New Zealand and Australia.

Renal transplant rates are many times a reflection not only of a country's healthcare system, but of cultural diversities and beliefs. As an example, transplant rates are less than 10 per million population in countries such as Malaysia, Russia, Romania, Bosnia/Herzegovina, Thailand, and Bangladesh, in contrast to rates above 60 in Jalisco (Mexico) and above 50 in the United States, Portugal, Norway, the UK, and the Netherlands. Rates of functioning grafts reach 608 and 580 per million population in Norway and the U.S., but are less than 50 in Bosnia/Herzegovina, Russia, Romania, and Morelos (Mexico).

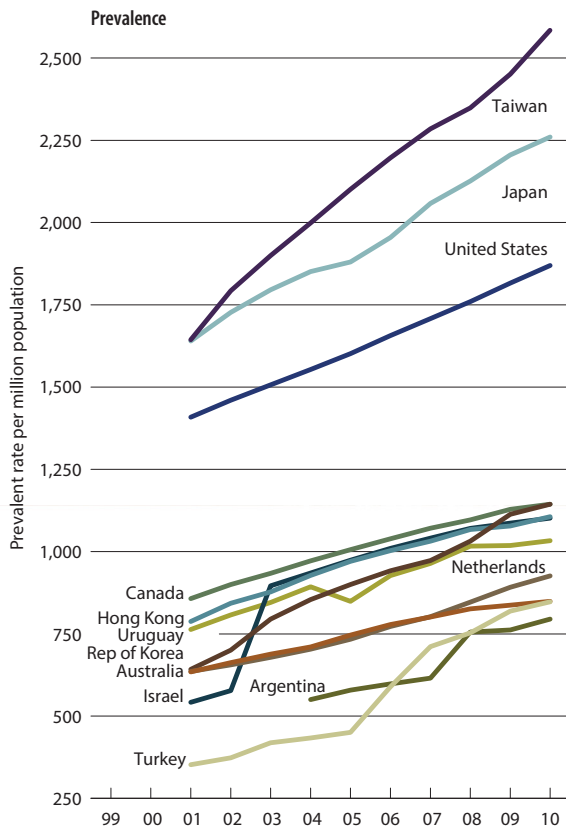
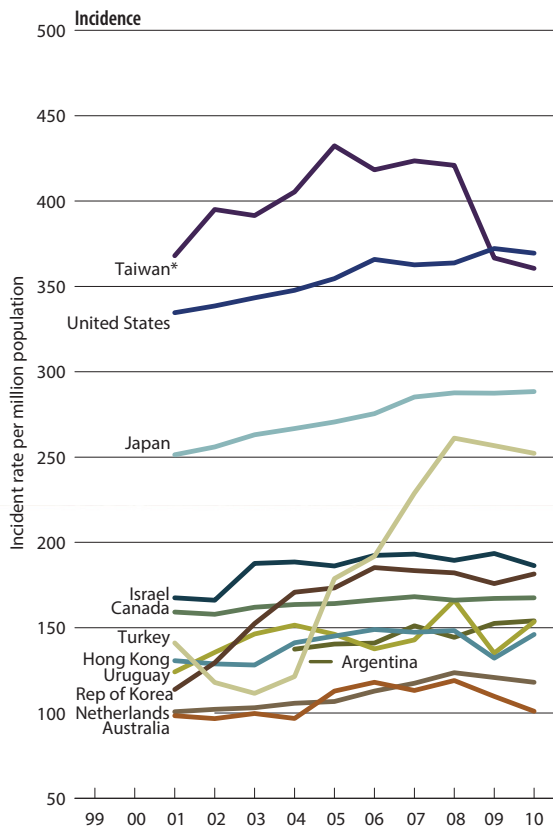
We invite all renal registries to participate in our international data collection, and wish to thank all currently participating registries for their willingness to provide data on their ESRD programs, giving us a worldwide perspective on patients with ESRD. » **Figure 12.1**; see page 447 for analytical methods. *All rates unadjusted. Data from Argentina (2005–2007), Japan, & Taiwan are dialysis only. \*Downturn in incident rates is due to changes in criteria for incidence & to changes in the payment system.*

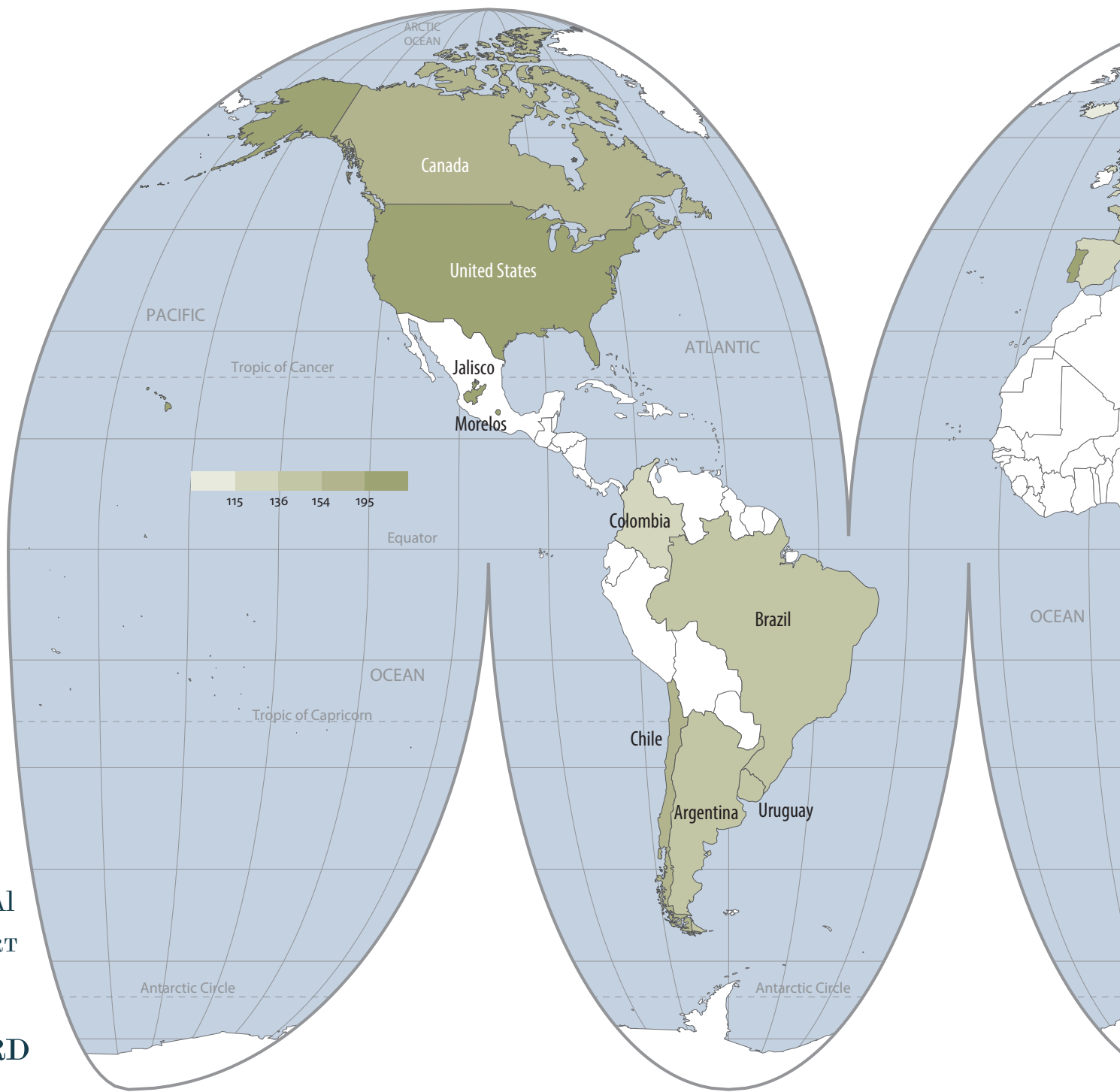
she knows

she is a part of the  
pond she lives in,  
the tall trees are her children,  
the birds that swim above her  
are tied to her by an  
unbreakable string.

MARY OLIVER,  
"The turtle"

vol 2  
**12.1** Comparison of unadjusted ESRD incidence & prevalence worldwide



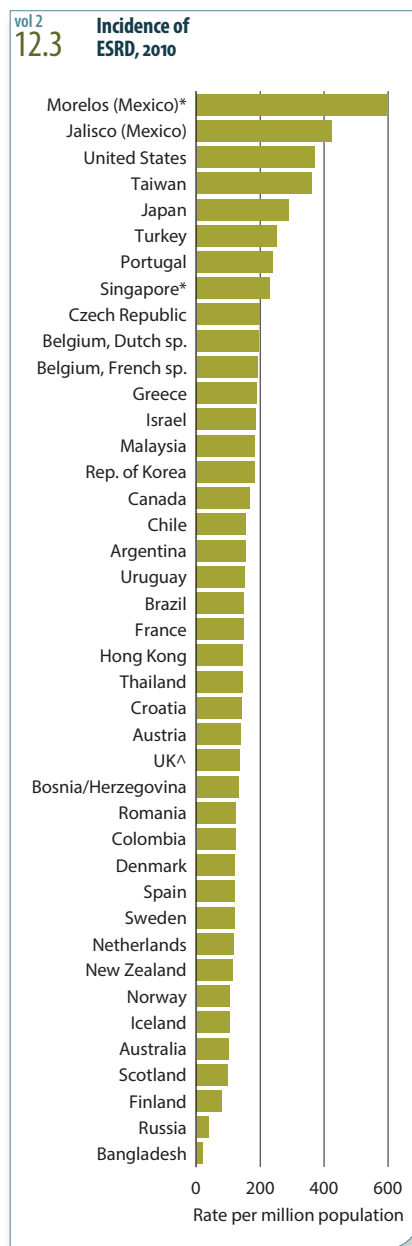


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**12.2 Geographic variations in the incidence of ESRD (per million population), 2010**

» **Figure 12.2;** see page 447 for analytical methods. Data presented only for countries from which relevant information was available. All rates unadjusted. Latest data for Singapore & Morelos (Mexico), are for 2009. Data for France include 23 regions. Data for Belgium & for England/Wales/Northern Ireland do not include patients younger than 18.



incidence of end-stage renal disease



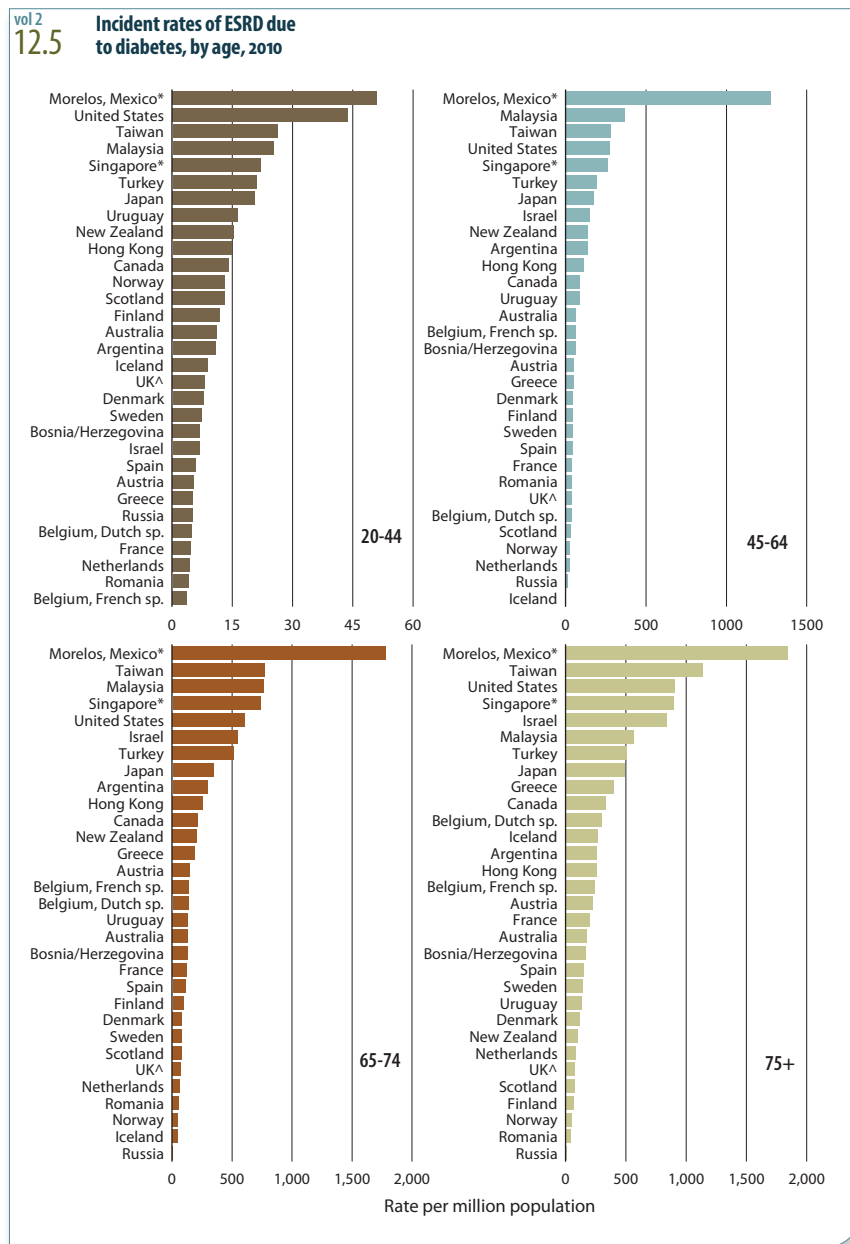
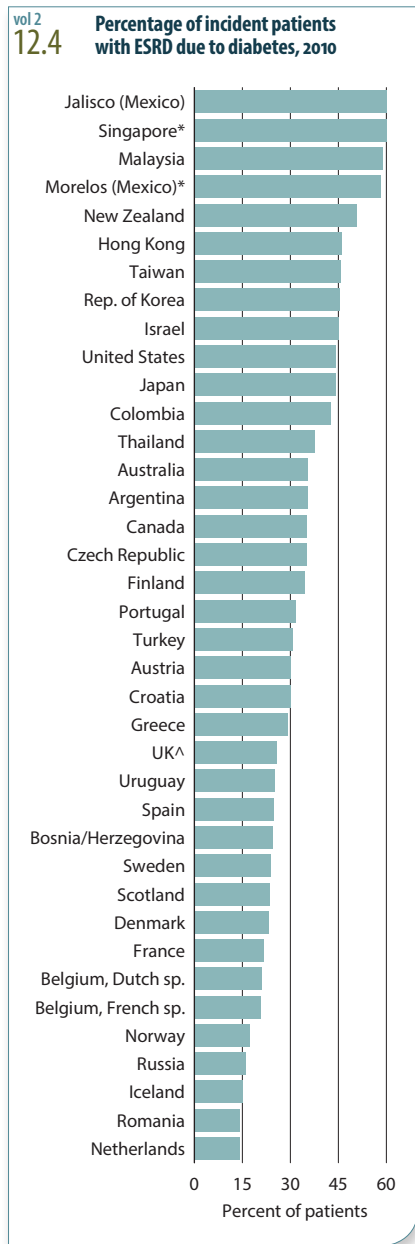
Data presented only for countries from which relevant information was available; “.” signifies data not reported. All rates unadjusted. ^UK: England, Wales, & Northern Ireland (Scotland data reported separately). Data for Belgium & England/Wales/Northern Ireland do not include patients younger than 18. \*Latest data for Singapore & Morelos (Mexico) are for 2009. Data for France include 13 regions in 2005, 15 regions in 2006, 18 regions in 2007, 20 regions in 2008 & 2009, & 23 regions in 2010.

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12.a Incidence of ESRD, by year (per million population)

	2005	2006	2007	2008	2009	2010
Argentina	140	141	151	144	153	154
Australia	113	118	113	119	110	101
Austria	154	160	154	150	151	139
Bangladesh	8	8	13	13	13	20
Belgium, Dutch speaking	183	192	190	193	207	195
Belgium, French speaking	177	187	187	191	197	192
Bosnia/Herzegovina	104	133	151	149	143	133
Brazil	177	185	140	148	99	150
Canada	164	166	168	166	167	168
Chile	135	141	144	153	153	156
Colombia	101	126	146	107	103	145
Croatia	144	142	153	153	156	142
Czech Republic	175	186	185	182	181	198
Denmark	121	119	147	126	133	121
Finland	97	87	94	95	84	81
France	140	144	141	148	151	149
Greece	194	198	192	201	205	190
Hong Kong	145	149	147	148	132	146
Iceland	67	69	84	72	88	104
Israel	186	192	193	189	193	186
Jalisco (Mexico)	302	346	372	400	419	425
Japan	271	275	285	288	287	288
Rep. of Korea	173	185	184	182	176	181
Malaysia	121	138	150	168	175	183
Morelos (Mexico)	.	.	553	557	597	.
Netherlands	107	113	117	124	121	118
New Zealand	111	119	111	116	135	115
Norway	99	100	113	113	116	104
Portugal	.	.	.	232	240	239
Romania	94	75	90	97	109	124
Russia	24	28	.	35	35	40
Scotland	125	116	114	108	106	99
Singapore	241	241	268	248	230	.
Spain	126	128	121	128	129	121
Sweden	121	130	128	123	127	121
Taiwan	432	418	424	421	367	361
Thailand	110	139	159	100	123	146
Turkey	179	192	229	261	257	252
U.K., England, Wales & N Ireland	111	115	140	141	140	136
United States	355	366	363	364	372	369
Uruguay	146	138	143	166	135	153

Incident rates of reported ESRD in 2009 were 597 per million population in Morelos (Mexico), followed by 2010 reportings from Jalisco (Mexico), the United States, Taiwan, and Japan at 425, 369, 336 and 288, respectively. Rates of less than 100 per million were reported in Scotland, Finland, Russia, & Bangladesh. As stated in previous ADRS, it is important to note the distinction between the incidence of treatment guided by available funding, and the incidence of the disease itself. An affluent nation may allow elderly patients and those with diabetes to receive hemodialysis, for example, while developing nations may restrict treatment to younger, healthier patients.

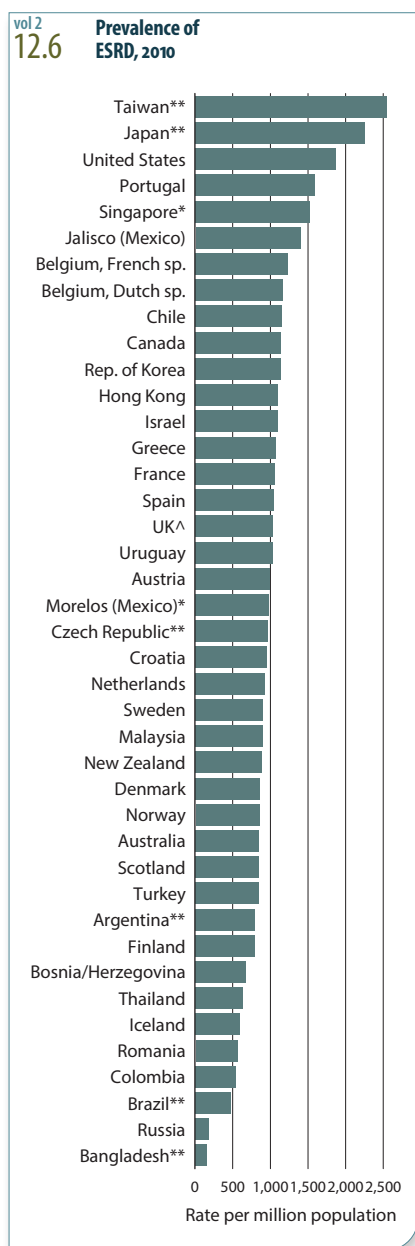
» Figure 12.3 & Table 12.a; see page 447 for analytical methods.



In 2009 and 2010, diabetes was the primary cause of ESRD in 51–63 percent of new patients in Jalisco (Mexico), Singapore, Malaysia, Morelos (Mexico), and New Zealand. Hong Kong, Taiwan, the Republic of Korea, Israel, the United States, Japan, and Colombia all reported rates of ESRD incidence due to diabetes of greater than 40 percent. Countries reporting rates below 20 percent included Norway, Russia, Iceland, Romania, and the Netherlands.

Incident rates of ESRD due to diabetes rise with increasing age. In 2009, Morelos (Mexico) reported a rate of 1,786 in those age 65–74, more than two times higher than the rates of 771, 767, and 609 reported by Taiwan, Malaysia, and the United States in 2010. Rates in the United States were 44, 367, and 543, respectively, for those age 20–44, 45–64, and 75 and older. » **Figures 12.4–5**; see page 447 for analytical methods.

Data presented only for countries from which relevant information was available. All rates unadjusted. ^UK: England, Wales, & Northern Ireland (Scotland data reported separately). Data for Belgium & England/Wales/Northern Ireland do not include patients younger than 18. \*Latest data for Singapore & Morelos (Mexico) are for 2009. Data for France include 13 regions in 2005, 15 regions in 2006, 18 regions in 2007, 20 regions in 2008 & 2009, & 23 regions in 2010.



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**12.b** **Prevalence of ESRD, by year (per million population)**

	Prevalent counts					Prevalent rates				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Argentina	23,306	24,218	30,035	30,580	31,885	598	615	756	762	795
Australia	16,112	16,842	17,660	18,317	18,972	778	801	826	837	849
Austria	7,512	7,731	7,898	8,194	8,355	909	934	948	981	996
Bangladesh	12,864	15,089	16,963	21,067	24,618	88	101	113	137	158
Belgium, Dutch sp.	6,300	6,531	6,793	7,100	7,322	1,033	1,064	1,098	1,140	1,166
Belgium, French sp.	4,768	4,983	5,207	5,452	5,712	1,071	1,111	1,151	1,194	1,237
Bosnia & Herzegov.	2,115	2,306	2,441	2,477	2,587	552	602	637	646	675
Brazil	73,605	87,044	77,589	92,091	91,314	398	466	415	481	479
Canada	33,898	35,274	36,548	38,074	39,056	1,039	1,071	1,097	1,128	1,144
Chile	15,353	16,360	17,856	18,849	19,854	930	986	1,065	1,109	1,161
Colombia	.	.	20,239	19,846	24,760	.	.	455	441	544
Croatia	3,799	3,932	4,009	4,124	4,257	856	886	904	930	959
Czech Republic	4,752	5,190	5,633	9,536	10,218	462	500	538	908	970
Denmark	4,295	4,592	4,685	4,771	4,810	782	832	844	855	867
Finland	3,829	3,953	4,086	4,169	4,242	727	747	769	781	791
France	34,835	49,679	54,761	59,549	67,271	963	954	996	1,039	1,060
Greece	10,994	11,343	11,664	12,034	12,212	986	1,013	1,038	1,067	1,080
Hong Kong	6,930	7,171	7,460	7,580	7,857	1,003	1,031	1,067	1,078	1,106
Iceland	147	161	167	173	190	484	518	526	543	597
Israel	7,125	7,472	7,826	8,134	8,400	1,010	1,041	1,071	1,087	1,102
Jalisco (Mexico)	6,357	6,865	7,218	9,222	9,916	929	986	1,030	1,314	1,402
Japan	249,718	262,968	271,471	281,212	289,415	1,954	2,058	2,126	2,205	2,260
Rep. of Korea	46,730	48,675	51,989	56,396	58,860	942	973	1,032	1,114	1,144
Malaysia	16,805	18,825	21,116	23,278	25,411	626	692	767	834	899
Morelos (Mexico)	.	13,146	13,928	14,734	15,383	.	878	939	978	.
Netherlands	12,623	13,146	13,928	14,734	15,383	772	802	847	891	926
New Zealand	3,245	3,354	3,454	3,680	3,820	775	793	809	862	895
Norway	3,510	3,692	3,893	4,073	4,195	753	784	816	843	858
Portugal	.	.	14,965	16,011	16,788	.	.	1,407	1,505	1,590
Romania	6,578	7,935	9,089	10,810	12,085	305	368	422	503	564
Russia	18,486	.	22,234	24,246	26,327	130	.	157	173	186
Scotland	4,011	4,177	4,262	4,360	4,434	784	812	825	839	849
Singapore	4,936	5,165	5,439	5,692	.	1,400	1,442	1,493	1,524	.
Spain	35,462	41,546	44,067	39,708	47,632	961	956	995	1,034	1,046
Sweden	7,725	7,929	8,062	8,281	8,525	851	867	874	891	909
Taiwan	50,255	52,462	54,101	56,671	59,856	2,197	2,285	2,348	2,451	2,584
Thailand	17,967	26,457	31,496	35,110	40,845	286	420	497	553	639
Turkey	42,992	50,221	53,859	59,443	62,471	589	711	753	819	847
UK^	40,101	40,413	42,829	44,887	46,682	723	923	970	1,008	1,039
United States	496,592	516,875	537,465	559,448	580,741	1,656	1,708	1,760	1,816	1,870
Uruguay	3,073	3,204	3,389	3,407	3,468	927	964	1,016	1,019	1,033

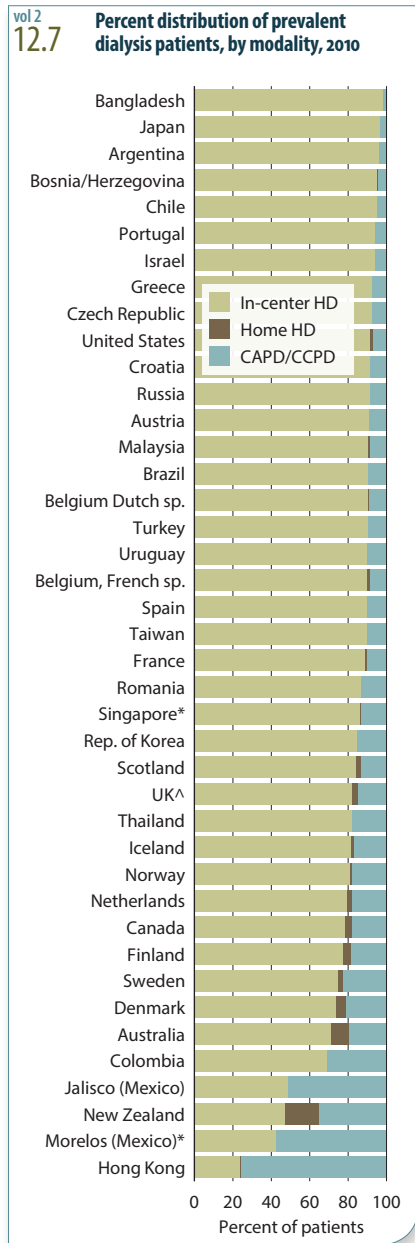
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Taiwan and Japan continued to report the highest rates of prevalent ESRD, at 2,584 and 2,260 per million population, respectively, in 2010. The next highest rate was reported by the United States, at 1,870, followed by Portugal, Singapore (2009), and Jalisco (Mexico) at 1,590, 1,524, and 1,402. The lowest rates were reported by Bangladesh and Russia, at 158 and 186.

» **Figure 12.6 & Table 12.b;** see page 447 for analytical methods.



patient distribution by type of dialysis



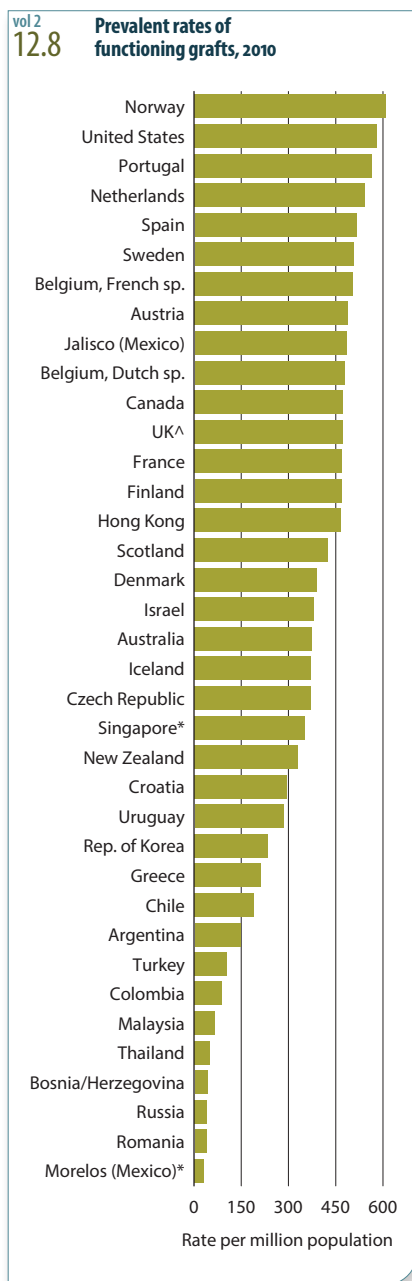
**vol 2**  
**12.c** **Percent distribution of prevalent dialysis patients, by modality & year**

	Hemodialysis					Home hemodialysis					Peritoneal dialysis				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Argentina	96.0	96.1	96.0	96.0	95.8	0.0	0.0	0.0	0.0	0.0	4.0	3.9	4.0	4.0	4.2
Australia	68.2	68.3	68.6	69.6	71.4	9.6	9.8	9.4	9.3	9.1	22.1	22.0	22.1	21.1	19.5
Austria	90.8	91.2	91.0	91.0	91.0	0.2	0.1	0.0	0.0	0.0	9.0	8.7	8.9	8.9	9.0
Bangladesh	99.6	98.4	98.3	98.3	98.3	0.0	0.0	0.0	0.0	0.0	0.4	1.6	1.7	1.7	1.7
Belg/Dutch sp.	89.1	89.2	89.7	89.6	90.4	0.2	0.2	0.3	0.4	0.4	10.7	10.6	10.1	10.0	9.2
Belgium, Fr. Sp.	89.2	90.5	90.8	90.3	90.0	1.3	1.2	1.3	1.2	1.4	9.5	8.3	7.9	8.5	8.6
Bosnia/Herzegov.	95.3	95.2	95.1	94.9	95.2	0.0	0.1	0.0	0.0	0.0	4.7	4.7	4.9	5.0	4.8
Brazil	90.8	89.4	89.6	92.3	90.6	0.0	0.0	0.0	0.0	0.0	9.2	10.6	10.4	7.7	9.4
Canada	78.9	78.6	78.4	78.4	78.4	2.8	3.0	3.3	3.5	3.7	18.4	18.4	18.3	18.1	17.9
Chile	95.0	95.2	95.3	95.3	95.1	0.0	0.0	0.0	0.0	0.0	5.0	4.8	4.7	4.7	4.9
Colombia	63.9	63.4	68.0	68.2	68.7	0.0	0.0	0.0	0.0	0.0	36.1	36.6	32.0	31.8	31.3
Croatia	91.6	92.8	91.8	91.0	91.5	0.0	0.0	0.0	0.0	0.0	8.4	7.2	8.2	9.0	8.5
Czech Republic	92.4	92.3	91.8	92.0	92.1	0.0	0.0	0.0	0.0	0.0	7.6	7.7	8.2	8.0	7.9
Denmark	72.0	71.8	72.9	73.7	74.0	4.1	3.7	4.1	4.4	4.7	23.9	24.5	23.0	21.9	21.3
Finland	76.0	75.8	74.4	75.0	77.5	2.9	3.8	3.9	3.7	4.0	21.2	20.4	21.7	21.3	18.5
France	85.4	87.4	87.8	88.5	88.5	2.0	1.6	1.3	1.2	1.0	12.6	11.1	10.8	10.3	10.5
Greece	91.5	91.7	91.7	92.0	92.3	0.0	0.0	0.0	0.0	0.0	8.4	8.3	8.3	7.9	7.7
Hong Kong	18.8	19.8	20.4	21.5	23.5	0.0	0.2	0.4	0.6	0.9	81.1	80.0	79.2	77.9	75.6
Iceland	70.6	72.1	76.2	86.9	81.7	0.0	1.6	1.6	0.0	1.4	29.4	26.2	22.2	13.1	16.9
Israel	91.9	92.9	93.6	93.3	93.8	0.0	0.0	0.0	0.0	0.0	8.1	7.1	6.4	6.7	6.2
Jalisco (Mexico)	29.5	34.2	40.4	41.5	48.7	0.0	0.0	0.0	0.0	0.0	70.5	65.8	59.6	58.5	51.3
Japan	96.8	96.7	96.8	96.7	96.7	0.1	0.1	0.1	0.1	0.1	3.2	3.3	3.1	3.2	3.2
Rep. of Korea	78.4	80.2	81.0	83.1	84.4	0.0	0.0	0.0	0.0	0.0	21.6	19.8	19.0	16.9	15.6
Malaysia	90.2	89.9	90.0	90.3	90.6	1.1	1.0	1.0	1.0	1.0	8.7	9.1	9.1	8.7	8.4
Morelos (Mexico)	.	40.6	43.2	42.4	.	.	0.0	0.0	0.0	.	59.4	56.8	57.6	.	.
Netherlands	74.8	76.0	77.4	79.1	79.5	2.3	2.3	2.5	2.5	2.7	22.9	21.7	20.1	18.4	17.9
New Zealand	45.5	48.2	48.1	48.4	47.2	16.1	15.8	15.7	16.5	17.7	38.3	36.0	36.2	35.0	35.0
Norway	80.5	80.6	83.4	80.7	81.3	0.4	0.3	0.3	0.5	0.7	19.1	19.1	16.4	18.8	18.0
Portugal	.	.	94.8	94.4	93.9	.	.	0.0	0.0	0.0	.	.	5.2	5.6	6.1
Romania	80.6	81.8	82.9	84.5	86.4	0.0	0.0	0.0	0.0	0.0	19.4	18.2	17.1	15.5	13.6
Russia	91.0	.	91.0	91.3	91.4	0.0	.	0.0	0.0	0.0	9.0	.	9.0	8.7	8.6
Scotland	79.0	80.7	82.4	83.5	84.3	1.7	1.9	2.3	2.5	2.4	19.3	17.5	15.4	14.0	13.3
Singapore	81.1	82.5	85.6	86.3	.	0.1	0.1	0.1	0.1	.	18.8	17.4	14.4	13.6	.
Spain	90.1	89.4	90.6	90.6	89.8	0.2	0.1	0.3	0.2	0.2	9.7	10.5	9.2	9.2	10.0
Sweden	75.5	73.0	73.3	73.6	74.8	2.6	2.9	2.8	2.7	2.8	21.9	24.2	23.9	23.6	22.4
Taiwan	92.4	91.5	90.8	89.7	89.6	0.0	0.0	0.0	0.0	0.0	7.6	8.5	9.2	10.3	10.4
Thailand	95.8	94.5	90.5	84.1	81.9	0.0	0.0	0.0	0.0	0.0	4.2	5.5	9.5	15.9	18.1
Turkey	88.7	88.1	87.4	89.6	90.4	0.0	0.0	0.0	0.0	0.0	11.3	11.9	12.5	10.4	9.6
UK^	78.6	79.2	81.2	82.2	82.3	2.0	2.0	2.1	2.5	3.0	19.4	18.8	16.6	15.3	14.7
United States	91.9	92.0	92.0	91.9	91.5	0.7	0.9	1.0	1.2	1.3	7.3	7.1	6.9	6.9	7.2
Uruguay	92.6	90.6	91.1	90.8	90.1	0.0	0.0	0.0	0.0	0.0	7.4	9.4	8.9	9.2	9.9

Data presented only for countries from which relevant information was available; "." signifies data not reported. All rates unadjusted. ^UK: England, Wales, & Northern Ireland (Scotland data reported separately). Data for Belgium & England/Wales/Northern Ireland do not include patients younger 18, respectively. \*Latest data for Singapore & Morelos (Mexico) are for 2009. Data for France include 13 regions in 2005, 15 regions in 2006, 18 regions in 2007, 20 regions in 2008 & 2009, & 23 regions in 2010.

In Hong Kong, 75 percent of prevalent dialysis patients were treated with CAPD/CCPD in 2010. More than half of prevalent dialysis patients in Jalisco (Mexico) and Morelos (Mexico) use this therapy, as do 35 percent of those treated in New Zealand. In-center hemodialysis remains the most common mode of therapy worldwide; in New Zealand and Australia, however, 17.7 and 9.1 percent of patients, respectively, use home hemodialysis. » **Figure 12.7 & Table 12.c;** see page 447 for analytical methods.

prevalent rates of functioning grafts



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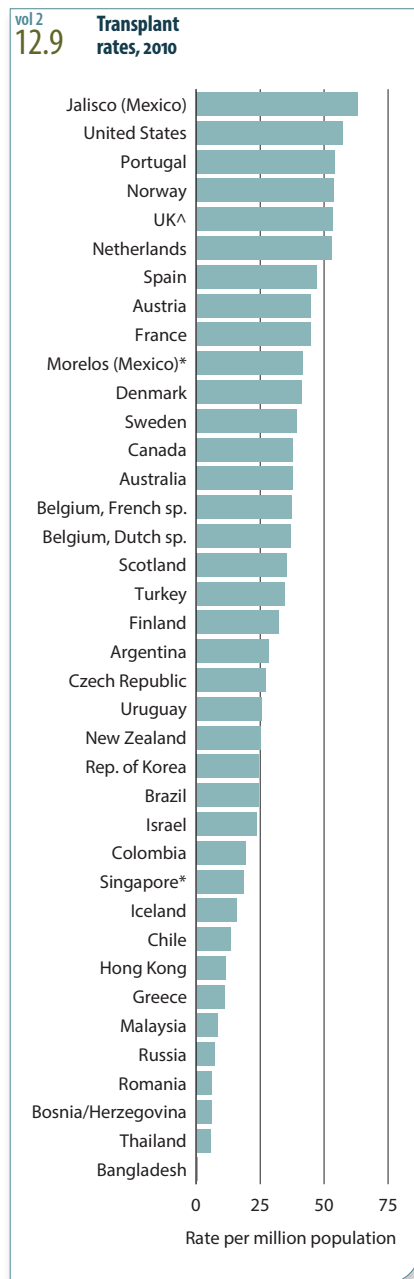
vol 2  
12.d

**Prevalent rates of functioning grafts, by year (per million population)**

	2005	2006	2007	2008	2009	2010
Argentina	.	.	.	132	128	147
Australia	322	331	338	351	361	375
Austria	428	439	456	460	476	489
Belgium, Dutch speaking	405	423	439	453	465	477
Belgium, French speaking	410	434	453	470	485	505
Bosnia & Herzegovina	33	32	32	40	44	42
Canada	393	409	428	442	459	473
Chile	157	165	175	189	191	191
Colombia	.	.	.	61	60	89
Croatia	166	188	205	231	261	296
Czech Republic	.	.	.	.	359	370
Denmark	267	318	334	348	365	390
Finland	418	434	445	449	459	468
France	390	409	407	427	458	470
Greece	182	192	202	214	216	213
Hong Kong	387	410	420	443	460	467
Iceland	276	316	319	324	349	371
Israel	337	358	372	386	383	381
Jalisco (Mexico)	315	352	399	436	458	484
Rep. of Korea	188	196	202	213	225	234
Malaysia	64	66	65	65	66	66
Morelos (Mexico)	.	.	42	34	32	.
Netherlands	397	419	446	478	508	543
New Zealand	300	298	303	316	324	330
Norway	525	537	552	573	591	608
Portugal	.	.	.	484	545	566
Romania	15	20	22	29	34	40
Russia	25	29	.	34	38	41
Scotland	361	369	386	405	417	426
Singapore	317	330	341	348	352	.
Spain	386	445	453	505	495	516
Sweden	439	454	469	486	498	506
Thailand	25	20	57	36	46	50
Turkey	21	58	80	109	102	104
U.K., England, Wales & N Ireland	271	288	428	458	477	473
United States	486	508	527	545	562	580
Uruguay	132	210	235	256	273	284

Reported prevalent rates of functioning grafts were greatest in Norway, the United States, and Portugal, at 608, 580, and 566 per million population in 2010. Countries and regions reporting rates above 400 per million include the Netherlands, Spain, Sweden, Belgium (both French- and Dutch-speaking), Austria, Jalisco (Mexico), Canada, the UK, France, Finland, Hong Kong, and Scotland. Bosnia/Herzegovina, Russia, Romania, and Morelos (Mexico) reported rates below 50 per million population in 2010. » **Figure 12.8 & Table 12.d;** see page 447 for analytical methods.

transplant rates



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**12.e** **Transplant rates, by year (per million population)**

	2005	2006	2007	2008	2009	2010
Argentina	19.1	21.7	23.0	25.1	26.4	28.4
Australia	30.6	31.0	29.3	38.0	35.3	37.9
Austria	45.9	47.9	43.7	39.5	47.4	44.7
Bangladesh	0.4	0.2	0.5	0.5	0.6	0.6
Belgium, Dutch speaking	28.4	39.7	43.3	39.9	39.3	36.8
Belgium, French speaking	37.6	39.3	40.8	36.7	36.8	37.5
Bosnia & Herzegovina	11.5	6.8	8.4	9.1	7.0	6.0
Brazil	18.4	17.8	18.5	20.2	22.2	24.3
Canada	32.7	38.4	39.5	38.3	37.7	37.9
Chile	17.2	18.5	17.1	16.8	15.1	13.5
Colombia	11.9	14.9	14.8	16.1	18.9	19.5
Czech Republic	38.0	41.6	38.0	31.9	34.0	27.2
Denmark	32.7	30.8	30.3	34.8	40.3	41.3
Finland	31.8	39.7	32.3	28.0	32.8	32.4
France	36.6	39.9	45.1	44.9	43.3	44.6
Greece	23.7	22.2	21.9	23.9	14.9	11.1
Hong Kong	8.6	9.6	9.5	11.2	13.5	11.4
Iceland	33.7	26.3	22.5	15.8	22.0	15.7
Israel	43.4	43.2	37.7	33.1	28.6	23.7
Jalisco (Mexico)	55.7	52.2	59.3	54.3	58.1	63.2
Rep. of Korea	15.5	18.8	18.5	22.7	24.5	24.6
Malaysia	6.2	11.1	8.2	9.2	9.8	8.3
Morelos (Mexico)	.	.	54.6	44.5	41.8	.
Netherlands	43.1	41.0	51.0	47.0	50.0	52.8
New Zealand	22.5	21.5	29.1	28.6	28.0	25.2
Norway	49.5	45.5	55.2	58.3	60.5	53.8
Portugal	.	.	.	49.4	55.7	54.3
Romania	4.7	5.3	2.8	7.3	6.3	6.1
Russia	2.8	2.9	.	5.5	5.9	7.3
Scotland	29.2	26.4	37.7	42.2	41.6	35.4
Singapore	19.6	24.1	23.2	20.0	18.5	.
Spain	67.3	48.2	47.3	48.3	49.8	47.3
Sweden	43.2	40.5	42.3	45.6	42.2	39.3
Thailand	.	3.6	5.9	5.4	4.8	5.5
Turkey	4.5	11.6	18.6	18.1	26.3	34.5
U.K., England, Wales & N Ireland	30.0	34.1	45.0	49.2	51.8	53.3
United States	59.0	60.6	58.2	57.2	57.8	57.5
Uruguay	35.4	42.8	28.9	37.5	35.0	25.6

Jalisco (Mexico), the United States, Portugal, Norway, the UK, and the Netherlands reported transplant rates of 63.2, 57.5, 54.3, 53.8, 53.3, and 52.8, respectively, per million population in 2010. Rates were less than 10 per million, in contrast, in Malaysia, Russia, Romania, Bosnia and Herzegovina, Thailand, and Bangladesh. » **Figure 12.9 & Table 12.e;** see page 447 for analytical methods.

Data presented only for countries from which relevant information was available; "." signifies data not reported. All rates unadjusted. ^UK: England, Wales, & Northern Ireland (Scotland data reported separately). Data for Belgium & England/Wales/Northern Ireland do not include patients younger than 18. \*Latest data for the Singapore & Morelos (Mexico) are for 2009. Data for France include 13 regions in 2005, 15 regions in 2006, 18 regions in 2007, 20 regions in 2008 & 2009, & 23 regions in 2010.



*highest rates of reported incident ESRD, 2010 (per million population; Figure 12.3)*

» Morelos (Mexico) · 597 (2009) » Jalisco (Mexico) · 425 » U.S. · 369 » Taiwan · 361

*incident patients with ESRD due to diabetes, 2010 (percent; Figure 12.4)*

» Jalisco (Mexico) · 63 » Singapore (2009) · 61 » Malaysia · 59 » Morelos (Mexico, 2009) · 58

*highest rates of reported prevalent ESRD, 2010 (per million population; Figure 12.6)*

» Taiwan · 2,584 » Japan · 2,260 » U.S. · 1,870

*prevalent rates of a functioning graft, 2010 (per million population; Figure 12.8)*

» Norway · 608 » U.S. · 580 » Portugal · 566 » Netherlands · 543

*transplant rates, 2010 (per million population; Figure 12.9)*

» Jalisco (Mexico) · 63 » United States · 58 » Portugal · 54 » Norway · 54 » UK · 53 » the Netherlands · 53