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Original Article

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Decreasing trends in incidence and prevalence of renal replacement therapy in Croatia from 2000 to 2009

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Abstract

Background. Recent studies have indicated stabilization in the incidence rates of renal replacement therapy (RRT) for end-stage renal disease (ESRD) in a number of European countries, the USA, and Japan. The aim of this study was to provide an update on the incidence and prevalence trends of RRT in Croatia over the past decade.

Methods. Data from the Croatian Registry of Renal Replacement therapy from 2000 to 2009 were analysed. Trends in incidence and prevalence were examined using the Poisson regression and Joinpoint regression analysis.

Results. The total adjusted incidence rate of RRT for ESRD increased from 106.1 per million population (pmp) in 2000 to 140.4 pmp in 2004, at annual percentage change (APC) 7.0% [95% confidence interval (CI) 1.8, 12.6]. From 2004 to 2009, there was no rise in incidence [APC −1.0 (95% CI −4.5, 2.6)]. Continuous growth in incidence was present only in males [APC 2.6 (95% CI 0.9, 4.4)], in patients 65 years and older [APC 5.5 (95% CI 3.4, 7.6)], in patients with diabetes [APC 2.4 (95% CI 0.5, 4.4)], hypertension/renovascular disease [APC 6.1 (95% CI 1.6, 10.8)] and unknown/missing diagnosis [APC13.8 (95% CI 9.0, 18.8)]. The total adjusted prevalence rate rose from 598.7 pmp in 2000 to 785.6 pmp in 2004, at an annual rise of 7.5% (95% CI 5.8, 9.3). In the 2004–09 period, the growth of RRT slowed to APC 2.4 (95% CI 1.2, 3.5), and reached 890.8 pmp in 2009.

Conclusions. After a rapid increase in the incidence of RRT in Croatia from 2000 to 2004, the incidence rate has stabilized during the 2004–09 period. The stabilization of incidence is followed by a reduction in the growth in prevalence rate. The stabilization of RRT incidence could be attributed to the successful prevention and treatment of cardiovascular diseases that simultaneously improved renal survival.

Keywords: Croatia; incidence trends; prevalence trends; renal replacement therapy

Introduction

A continuous rise in renal replacement therapy (RRT) incidence of 5–8% per year has been predicted for developed countries, and an even higher increase has been expected in less developed parts of the world [1, 2]. The first sign of a more favourable scenario came from the USA after years of considerable growth, where the rate of new patients taken into RRT began to decrease between 2002 and 2004. The overall incidence rate adjusted for age and sex declined by 1.1% and reached 339 per million population (pmp) [3]. This incidence stabilization trend in the USA attracted much attention, as epidemiological occurrences in the USA have been shown to precede and predict future trends in other parts of the world with developed RRT.

Trends of stabilization of RRT incidence rates in some European countries were reported for the first time in 2004 [4] and confirmed in publications in the following years [5, 6]. The incidence rates in European countries are stabilizing at ∼125 pmp, less than half of that observed in the USA at the time of the halting incidence growth.

Australia has experienced a 2.1% reduction at an incidence rate of 95 pmp, and New Zealand had a 7.6% reduction at an incidence rate of 110 pmp in 2004 [7]. In Canada, a slowing rise in incidence was observed in 2004. A maximal incidence rate of 168 pmp was attained in 2007, followed by a decrease thereafter, as reported by the Canadian Organ Replacement Register [8].

A stabilization and drop in the incidence of RRT has been observed recently even in the countries with the highest incidence rates [9, 10]. The incidence rate in Taiwan in 2009 (347 pmp) was the lowest observed from 2001 [10]. In Japan in 2009, the incidence rate was 287 pmp, for the first time it was lower than the preceding year [10].

Interestingly, stabilizations in incidence occurred in a relatively short time frame in various countries, but at very different incidence rates, from less than 100 pmp to over 370 pmp.

Our study examines the incidence and prevalence of RRT in Croatia during the 2000–09 period, looking for changes in trends that might predict a decrease in burden of RRT.

Materials and methods

The National Health System covers the costs of dialysis and transplantation for all citizens of Croatia. All patients on RRT for end-stage renal disease (ESRD), children and adults included, have been registered with the Croatian Registry of Renal Replacement Therapy (CRRRT) since 2000 [11]. Dialysis and transplant centres participate voluntarily, with complete coverage of all patients treated by haemodialysis, peritoneal dialysis and transplantation.

The data collected include the identification parameter, gender, date of birth, date of start of RRT, primary renal disease according to the ERA-EDTA coding system, type of treatment, date of change of treatment, and date and cause of death. The incidence of RRT was defined as the number of patients starting treatment during a year and alive on RRT at Day 91, and the prevalence was defined as the number of patients receiving RRT on 31 December. The incidence rate and the prevalence rate were calculated by dividing the incident and prevalent number with the mid-year population of Croatia in millions (pmp) or per million age related population (pmarp). Age- and gender-adjusted incidence and prevalence rates were calculated using the age and gender distribution of the mid-year population of Croatia. To correct for errors of late reporting, data were updated using the 2010 CRRT database. Statistical analysis was performed by SPSS version 10.0 (SPSS Inc., Chicago, IL) for Windows operating systems (Microsoft, Redmond, Washington, DC). Time trends were analysed with the Poisson regression and joinpoint regression methods [12]. An observation period of 10 years was tested for a maximum of two joinpoints.

Results

The population treated by RRT for ESRD in Croatia in the period 2000–09 is presented in Table 1.

Trends in the incidence of RRT in Croatia, 2000–09

The incidence of RRT at Day 91, the incidence rate and incidence rate adjusted for age and gender distribution are presented in Table 2. By joinpoint regression analysis, the year 2004 was identified as a breaking point in incidence trend. The annual percentage change (APC) of incidence during the 2000–04 period was 7.7 (95% CI 2.2, 13.5), and adjusted incident rate was increasing during the same interval at an annual rate of 7.0% [APC; 95% CI 1.8, 12.6)]. The increase in incidence ceased in the 2004–09 period, as measured by incidence [APC −0.2 (95% CI −3.9, 3.5)], incident rate [APC −0.1 (95% CI −3.8, 3.7)] and adjusted incident rate [APC −1.0 (95% CI −4.5, 2.6)].

Gender and incidence trends. In males, a constant growth in incidence was present throughout the decade. The average annual growth of male incidence was 3.8% (95% CI 2.0, 5.6), and for age-adjusted male incidence, it was 2.6% (95% CI 0.9, 4.4).

In females, the incidence of RRT did not change during the 2000–09 decade. The trend was not different from zero in female unadjusted incidence [APC 2.0 (95% CI −0.0, 4.1)] and in female age-adjusted incidence [APC 1.6 (95% CI −0.5, 3.7)].

The age-adjusted incidence rate in males was constantly higher than in females, by a factor of 1.4–1.8.

Age and incidence trends. The incidence trends according to age are presented in Table 3. In patients under 65 years of age, the incidence [APC 0.8 (95% CI −1.9, 3.6)] and adjusted incidence [APC 0.2 (95% CI −1.1, 1.5)] were stable during the observed period. No change in incidence was found in the age groups 0–19, 20–44 and 45–64 when analysed separately.

In all patients aged 65 and over taken together, there was a constant increase in incidence during the 10-year

Table 1. Population on RRT in Croatia during the period 2000–09[a]

	Incidence									Prevalence				
				Primary renal disease (%)								Treatment mode (%)		
Year	Incident number	Incidence pmp	Age (years), median	GN	PN	PKD	HT/ RVD	DN	No DG	Prevalent number	Prevalence pmp	HD	PD	TX
2000	466	106	62	17	14	8	11	31	5	2613	592	81	5	15
2001	479	108	62	17	12	7	17	27	5	2758	621	79	6	15
2002	495	111	62	19	12	7	16	27	6	3134	699	76	7	17
2003	590	131	63	15	13	6	18	28	8	3317	738	76	7	17
2004	629	140	65	12	12	5	21	28	6	3541	787	74	7	19
2005	599	133	66	16	12	5	16	28	7	3697	822	73	7	20
2006	571	127	67	15	14	5	19	27	9	3835	853	71	6	22
2007	626	139	67	15	9	7	20	29	8	3955	880	71	6	23
2008	609	136	67	14	11	4	20	30	10	4036	899	69	6	26
2009	601	134	67	10	9	5	19	28	19	4142	923	66	6	28

[a]GN, glomerulonephritis; PN, pyelonephritis; PKD, polycystic kidney disease; HT/RVD, hypertension; HD, haemodialysis; PD, peritoneal dialysis; TX, transplantation renovascular disease; No DG, unknown or missing diagnosis.

Table 2. Incidence at day 91 of RRT in Croatia according to gender, during the period 2000–09

	Incidence by year										Trend 1		95% CI		Trend 2		95% CI	
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Period	APC (%)	Lower	Upper	Period	APC (%)	Lower	Upper
All																		
Incidence	466	479	495	590	629	599	571	626	609	601	2000–04	7.7*	2.2	13.5	2004–09	−0.2	−3.9	3.5
Incidence pmp	105.6	107.9	110.5	131.2	139.9	133.2	127.0	139.3	135.6	133.9	2000–04	7.2*	1.7	13.1	2004–09	−0.1	−3.8	3.7
Incidence pmarp	106.1	109.4	111.8	132.0	140.6	131.5	125.5	136.3	131.6	128.6	2000–04	7.0*	1.8	12.6	2004–09	−1.0	−4.5	2.6
Males																		
Incidence	266	264	282	324	351	360	312	374	377	346	2000–09	3.8*	2.0	5.6				
Incidence pmp	125.1	123.5	131.0	150.1	162.6	166.7	144.4	173.2	174.5	160.1	2000–09	3.7*	1.9	5.4				
Incidence pmarp	132.0	131.8	139.1	158.0	168.2	170.6	146.0	173.3	172.4	156.2	2000–09	2.6*	0.9	4.4				
Females																		
Incidence	200	215	213	266	278	239	259	252	232	255	2000–09	2.0	−0.0	4.1				
Incidence pmp	87.6	93.4	91.5	113.7	118.9	102.3	110.9	108.0	99.6	109.5	2000–09	1.9	−0.1	3.9				
Incidence pmarp	85.4	91.5	88.7	111.3	117.0	98.1	107.6	104.7	95.8	104.1	2000–09	1.6	−0.5	3.7				
Male/female																		
Incidence pmarp	1.6	1.4	1.6	1.4	1.4	1.7	1.4	1.7	1.8	1.5								

*APC significantly different from zero.

follow-up. The adjusted incidence rate in 65+ grew constantly with an APC of 5. 5 (95% CI 3.4, 7.6), although the number of incident patients after the fast growth in the initial 5-year period [APC 14.1 (95% CI 6.0, 22.9)] stabilized in the last 5 years [APC 2.2 (95% CI −1.8, 6.3)]. The rise in incidence in the age group 65–74 was constant with APC 4.4 (95% CI 2.7, 6.0). The highest APC of incidence was seen in patients aged 75 and older during the 2000–03 interval: APC 34.5 (95% CI 16.2, 55.8), but growth ceased in the 2003–09 period: APC 1.8 (95% CI −2.0, 5.7).

Primary renal disease and incidence trends. The trends in incidence and incidence rate at Day 91 according to primary renal disease are depicted in Table 4. Incidence, incidence rates and adjusted incident rates of RRT for renal failure caused by glomerulonephritis, pyelonephritis and polycystic kidney disease did not increase throughout the observed period.

A constant increase in incidence and incidence rate was evident for patients with diabetes (adjusted incidence rate APC 2.4; 95% CI 0.5, 4.4) and hypertension/renovascular disease (adjusted incidence rate APC 6.1; 95% CI 1.6, 10.8) and for the group with unknown/missing diagnosis of primary renal disease (adjusted incidence rate APC 13.8; 95% CI 9.0, 18.8).

Trends in the prevalence of RRT in Croatia, 2000–09

The prevalence, prevalence rate and prevalence rate adjusted for age and gender distribution are presented in Table 5. A change in trend was observed in 2004. The overall adjusted prevalence increased from 598.7 pmp in 2000 to 785.6 pmp in 2004, at APC of 7.5 (95% CI 5.8, 9.3). From 2004 to 2009, the rate of increase slowed to APC 2.4 (95% CI 1.2, 3.5).

In males, the age-adjusted prevalence in the 2000–04 period increased with APC 7.7 (95% CI 5.7, 9.8), and growth slowed in the second 5-year period to APC 2.2 (95% CI 0.9, 3.6).

In females, the age-adjusted prevalence in the 2000–04 period had APC 7.2 (95% CI 5.1, 9.4) and in the 2004–09 period APC was 2.5 (95% CI 1.0, 3.9).

The age-adjusted prevalence in males was constantly higher than that of females by a factor of 1.4–1.5.

Discussion

From the year 2000, a registry of RRT with a complete coverage of the general population was recorded in Croatia. Data collected during the first decade, from 2000 to 2009, are the subject of this study with the aim to recognize the trends in incidence and prevalence of RRT in Croatia.

The incidence at Day 91 was chosen for presentation, as it has a stronger effect on the prevalence and on the burden of RRT for society.

The 2000–09 decade of RRT in Croatia was characterized by changes in the trends of incidence and prevalence that occurred in the middle of the observation period. During the first 5 years, the incidence (Day 91, age and gender adjusted) was increasing at a rate of 7.0% annually, and adjusted prevalence growth was 7.5%. In the following 5 years, the growth in incidence ceased, and the increase in prevalence reduced to 2.4%,

Table 3. Incidence at Day 91 of RRT in Croatia according to age during the period 2000–09

Age	Incidence by year										Trend 1				Trend 2			
													95% CI				95% CI	
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Period	APC (%)	Lower	Upper	Period	APC (%)	Lower	Upper
0–19																		
Incidence	9	9	6	7	6	8	12	7	8	7	2000–09	−0.2	−4.9	4.7				
Incidence pmarp	8.3	8.4	5.6	6.6	5.8	7.9	12	7.1	8.2	7.2	2000–09	1.1	−3.7	6.2				
20–44																		
Incidence	60	62	64	69	64	56	57	62	70	51	2000–09	−0.9	−3.0	1.2				
Incidence pmarp	38.5	39.7	40.9	44.1	41.1	36.1	36.9	40.4	45.8	33.6	2000–09	−0.6	−2.6	1.5				
45–64																		
Incidence	214	208	222	238	251	231	206	236	205	210	2000–09	−0.3	−1.9	1.3				
Incidence pmarp	193.7	185.4	194.7	206.2	215.1	195.6	172.4	195.2	167.5	169.4	2000–09	−1.5	−3.1	0.1				
65–74																		
Incidence	150	146	143	180	203	186	183	195	192	201	2000–09	3.7*	1.9	5.6				
Incidence pmarp	345.6	331.8	319.9	400.0	452.1	417.0	416.9	451.4	452.8	489.1	2000–09	4.4*	2.7	6.0				
75+																		
Incidence	33	54	60	96	105	118	113	126	134	132	2000–03	41.9*	22.7	64.0	2005–09	6.1*	2.2	10.2
Incidence pmarp	140.4	218.6	229.9	351.6	365.9	393.3	358.7	385.3	395.3	377.1	2000–03	34.5*	16.2	55.8	2005–09	1.8	−2.0	5.7
0–64																		
Incidence	283	209	292	314	321	295	275	305	283	268	2000–09	0.8	−1.9	3.6				
Incidence pmarp	75.6	74.4	77.4	83.2	85.3	78.7	73.5	81.7	75.9	71.9	2000–09	−0.3	−1.6	1.0				
65+																		
Incidence	183	200	203	276	308	304	296	321	326	333	2000–04	14.1*	6.0	22.9	2005–09	2.2	−1.8	6.3
Incidence pmarp	274.0	291.1	287.1	381.7	418.5	407.5	392.6	422.4	427.3	437.0	2000–09	5.5*	3.4	7.6				

*APC significantly different from zero.

less than one-third of the previous growth rate (Tables 2 and 5)

The incidence of RRT in patients under 65 was stable during the whole 2000–09 period. The incidence of RRT increased only for patients of 65 years and older. The largest constant gain in absolute numbers comes from the 65–75 age group. Somewhat unexpectedly, the incidence of RRT in the age group 75 and older stabilized in the 2003–09 period, after the highest growth of all age categories in the 2000–03 year period.

The incidence of renal failure treated by RRT caused by glomerulonephritis, pyelonephritis and polycystic kidney disease was stable throughout the study. The highest average annual increase in RRT was in the group with unknown/missing diagnosis of primary renal disease (13.9%), and the second in speed of growth was the group with hypertension/renovascular disease, with a linear trend of 6.1% annual increase. The incidence of RRT for diabetes induced renal failure increased by 2.5% annually; however, in absolute numbers, diabetes was the leading cause of demand for RRT.

The male gender is overrepresented on RRT. Males outnumber females in incidence numbers, and even more in age-adjusted incidence rates. The ratio of male-to-female-adjusted incidence is 1.4–1.8. Males and females differ not only in incidence numbers and incidence rates, but also in trends. Age-adjusted incidence in males linearly increased by 2.6% annually, whereas in females, the incidence was constant. In prevalence, the patient ratio of male-to-female-adjusted prevalence was 1.4–1.5.

Although prevalence in males was constantly higher throughout the decade, the prevalence trends in males and females were similar to the overall RRT prevalence according to the speed of increase and the moment of slope change. In both genders, there was a parallel trend of increased growth from 2000 to 2004, and growth retardation in the 2004–09 period to one-third of the previous rate, comparable to overall trends (Table 2).

Regional differences in the incidence of RRT attract much attention. In a recently published study, analysing factors connected with the incidence of RRT, it was shown that RRT incident rates are more affected by macroeconomic and renal service factors and less by general population health status and demographic characteristics [9].

The trends of slowing incidence and prevalence of RRT are global and seem to be unrelated to the level of incidence and prevalence of RRT [9, 10]. In the early years of the twenty-first century, a retardation in the growth of RRT occurred in spite of the dominant belief in the benefit of early dialysis, and the extended practice of early dialysis start [13]. The recent evidence contraindicating the early start of dialysis [14] will change the practice from the early start to postponed dialysis. This could sustain the decreasing trends in incidence of RRT additionally in the future.

Registry data identify epidemiological trends, but are not explanatory for the reasons behind the decreasing incidence of RRT for ESRD. The causes of concurrent changes in incidence in different areas can only be hypothesized. The prerequisites for recognizing trends are comprehensive and long-lasting registries of RRT. The incidence trends of RRT are a balance between the prevalence and the progression of chronic kidney disease in a population, and a policy of acceptance on RRT. If the access to RRT does not change, decreasing trends in RRT

Table 4. Incidence at day 91 of RRT according to primary renal disease in Croatia during the period 2000–09

	Incidence by year										Trend			
													95% CI	
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Period	APC (%)	Lower	Upper
Glomerulonephritis														
Incidence	81	80	96	91	75	97	84	92	84	62	2000–09	−1.4	−4.2	1.6
Incidence pmp	18.4	18.0	21.4	20.2	16.7	21.6	18.7	20.5	18.7	13.8	2000–09	−1.5	−4.3	1.4
Incidence pmarp	18.1	18.5	21.4	20.6	16.5	21.2	18.5	20.0	18.4	13.6	2000–09	−1.8	−4.6	1.0
Pyelonephritis														
Incidence	66	58	61	75	76	72	80	54	67	56	2000–09	−0.6	−3.6	2.6
Incidence pmp	15.0	13.1	13.6	16.7	16.9	16.0	17.8	12.0	14.9	12.5	2000–09	−0.7	−3.7	2.4
Incidence pmarp	15.7	13.6	13.9	16.6	17.0	15.8	17.9	11.6	14.5	12.2	2000–09	−1.5	−4.5	1.5
Polycystic kidney disease														
Incidence	39	34	36	38	29	28	30	46	24	28	2000–09	−2.9	−6.7	1.0
Incidence pmp	8.8	7.7	8	8.4	6.4	6.2	6.7	10.2	5.3	6.2	2000–09	−3.1	−6.9	0.8
Incidence pmarp	8.9	7.4	8.1	8.4	6.4	6	6.6	10.2	5.2	5.8	2000–09	−3.5	−7.5	0.6
Hypertension/renovascular disease														
Incidence	53	83	79	109	134	95	109	124	122	114	2000–09	7.2*	2.8	11.8
Incidence pmp	12.0	18.7	17.6	24.2	29.8	21.1	24.3	27.6	27.2	25.4	2000–09	7.1*	2.8	11.5
Incidence pmarp	12.3	19.1	18.1	24.8	31.0	21.1	24.2	26.6	26.0	24.3	2000–09	6.1*	1.6	10.8
Diabetic nephropathy														
Incidence	144	131	133	163	179	168	152	184	181	169	2000–09	3.1*	1.1	5.1
Incidence pmp	32.6	29.5	29.7	36.2	39.8	37.4	33.8	40.9	40.3	37.6	2000–09	3.0*	1.0	4.9
Incidence pmarp	32.2	29.9	30.1	35.7	39.7	37.3	33.2	40.0	38.9	35.8	2000–09	2.4*	0.5	4.4
Unknown/missing diagnosis														
Incidence	24	26	30	49	37	42	50	52	61	113	2000–09	14.9*	10.2	19.7
Incidence pmp	5.4	5.9	6.7	10.9	8.2	9.3	11.1	11.6	13.6	25.4	2000–09	14.8*	10.1	19.6
Incidence pmarp	5.7	5.9	6.8	11.2	8.1	9.2	10.8	11.4	13.2	24.4	2000–09	13.8*	9.0	18.8

*APC significantly different from zero.

incidence might only be the result of the reduced incidence of end-stage renal failure. The risks for the development and progression of chronic kidney disease are the same as for cardiovascular morbidity and mortality. Kidney failure and cardiovascular diseases are closely related and interconnected. Mortality from cardiovascular diseases continues to decline in most countries of Europe, America and Australia [15, 16]. The improved treatments of hypertension, along with the control of other risk factors, are probably major factors responsible for the reduction in overall cardiovascular mortality. Numerous clinical studies have proven that tight blood pressure control and drugs that moderate the renin–angiotensin system slow the progression of renal failure. The decrease in the growth in incidence of RRT was shown in regions with trends of reducing cardiovascular mortality.

The likely explanation for the evidence of stabilization in the incidence of RRT in Croatia is a combination of 10 years comprehensive RRT registry, unrestricted (unchanged) access to the RRT, and the decreasing trend in cardiovascular mortality (by 27.5%) during the same decade [17].

Conclusions

Croatia has attained the trend of stabilizing incidence of RRT for ESRD. The overall incidence of RRT did not increase from 2004 onwards. The incidence of RRT was stable over the 10-year period in females, aged under 65, for renal failure caused by glomerulonephritis and for pyelonephritis and polycystic kidney disease. An increase in incidence was constant in males, 65–74 age group, in ESRD caused by diabetes, hypertension/renovascular disease and in patients with unknown/missing diagnosis of kidney failure. As a consequence of the stabilizing overall incidence, the rise in prevalence decreased in 2004 to one-third of the growth present in the previous 5 years. Stabilization of the incidence of RRT in Croatia, as well as in other regions where it has been observed, might be the collateral effect of better prevention and treatment for cardiovascular diseases evidenced by a continuously declining cardiovascular mortality.

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Conflict of interest statement. None declared.

Table 5. Prevalence of RRT in Croatia during the period 2000–09

	Prevalence by year										Trend 1				Trend 2			
													95% CI				95% CI	
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Period	APC (%)	Lower	Upper	Period	APC (%)	Lower	Upper
All																		
Prevalence	2613	2758	3134	3317	3541	3697	3835	3955	4036	4142	2000–04	8.4*	6.5	10.3	2004–09	3.0*	1.8	4.3
Prevalence pmp	592.4	621.3	699.4	737.6	787.3	822.2	853.0	879.9	898.8	922.7	2000–04	7.9*	6.1	9.6	2004–09	3.1*	2.2	4.0
Prevalence pmarp	598.7	626.7	702.6	742.4	785.6	815.2	842.5	860.9	873.1	890.8	2000–04	7.5*	5.8	9.3	2004–09	2.4*	1.2	3.5
Males																		
Prevalence	1455	1539	1756	1848	1981	2096	2145	2208	2293	2344	2000–04	8.5*	6.5	10.5	2004–09	3.2*	1.9	4.6
Prevalence pmp	683.7	719.2	815.9	855.8	917.5	969.9	993.0	1022.4	1061.1	1084.9	2000–04	8.1*	6.2	10.1	2004–09	3.2*	1.9	4.6
Prevalence pmarp	710.8	743.3	843.3	884.1	936.7	983.8	998.5	1016.1	1044.7	1059.2	2000–04	7.7*	5.7	9.8	2004–09	2.2*	0.9	3.6
Females																		
Prevalence	1159	1222	1378	1473	1560	1602	1689	1746	1744	1798	2000–04	8.2*	6.0	10.4	2004–09	2.7*	1.3	4.2
Prevalence pmp	507.4	530.5	591.8	628.4	667.1	685.7	723.5	748.3	748.3	772.1	2000–04	7.6*	5.4	9.7	2004–09	2.9*	1.5	4.4
Prevalence pmarp	503.1	526.3	581.9	617.8	654.4	668.4	705.4	724.7	720.5	740.4	2000–04	7.2*	5.1	9.4	2004–09	2.5*	1.0	3.9
Male/Female																		
Prevalence pmarp	1.4	1.4	1.5	1.4	1.4	1.5	1.4	1.4	1.5	1.4								

*APC significantly different from zero.

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