International Smoking Statistics

Web Edition

A collection of worldwide historical data

Yugoslavia

and successor countries

Barbara Forey, Jan Hamling,
John Hamling, Alison Thornton, Peter Lee

Date of issue: 5-Jul-2016   (First issue)

Issue History:
First issued 5-Jul-2016

Contents

[1] See footnotes to Tables

List of Figures

[1] See footnotes to Figures

Preface

International Smoking Statistics is a collection of smoking data covering most of Europe and various other economically developed countries. The second edition (published by Wolfson Institute of Preventive Medicine and OUP, 2002, www.oup.co.uk/isbn/0-19-850856-5) included data for 30 countries up to 1995. Since 2006, work has been ongoing to make individual country updates available online. Please register at www.pnlee.co.uk if you wish to be informed when updates are posted.

The methods used in the web edition are essentially unchanged from those of the second edition, although some minor changes are included in the online Methods chapter. Readers are strongly recommended to consult the Methods chapter.

The two main types of data presented are sales data and survey data. We give the results of the original authors as closely as possible, whilst presenting them in a uniform format.

> Sales data give the total national consumption of tobacco. Data on sales of cigarettes and of all tobacco products are presented, usually from about 1920. Estimates of the consumption of hand-rolled cigarettes are included where possible, as are data on the types of manufactured cigarettes sold. The Tobacco Research Council provided most of the sales data until 1973, while later sales data were obtained from government and industry sources.

> Survey data provide information on the prevalence and amount of smoking according to age and sex. These were obtained from a wide variety of surveys. Some survey data are available for the early part of the 20th century, but for most countries they are available only from the 1950s or 1960s onwards.

In additional tables we calculate further statistics by combining sales and survey data using certain standardized assumptions. The figures are intended to provide an easily interpretable summary of the data presented in the tables, and the commentary has deliberately been kept to a minimum.

In this chapter, the sales data have been fully updated only for the EU republics (Croatia and Slovenia). The survey data are largely reproduced from the 2nd edition, which covered the years up to 1995, subject to a few amendments for consistency with the Web edition. For the subsequent years, only certain multinational surveys have been added.

Downloads

Updates currently available to download from http://www.pnlee.co.uk/iss.htm include:

> Methods, including
>> Appendix I: *Estimated size of adult population;*
>> Appendix II: *Comparisons of manufactured and hand-rolled cigarettes and differences in the way they are smoked;*
>> Appendix III: *Consumption category estimation*;

> Comparisons between countries;

Updated country chapters (see *Methods* for current list);

Tables from each updated chapter, in Excel format, including extended versions of Tables 4 and 6 and a customisable version of Figure 3;

Supplement 1: *Estimation of sex-specific smoking statistics by standardized age groups and time periods*. [The web edition comprises a brief Update Note, together with tables (in Excel format only) for the countries with a chapter in the web edition. The original Supplement 1 to the second edition (an extended version of Appendix IV to the second edition) is also available and gives a full description and tables for the other countries]. No update to Supplement 1 is planned for countries (including Yugoslavia and its successor countries) which have only been partially updated for the web edition.

Also available from the same source are:

Supplement 2 to the second edition: *Estimating past smoking habits by an indirect method. An investigation into a method based on recall, with application to Great Britain.* [This supplement is an extended version of Appendix V to the second edition];

An updated version of Appendix V Bibliography. [This bibliography lists published papers that use an indirect method for estimating past smoking habits based on recall];

IMASS, a comprehensive Excel database system, based on WHO mortality data and smoking statistics from Supplement 1. The IMASS system includes powerful routines for creating graphs and tables.

Acknowledgements

Introduction

Countries and years considered

This chapter covers Yugoslavia and its successor countries. The sales data have been fully updated only for the current EU member countries, Croatia and Slovenia. The survey data presented are largely reproduced from the 2nd edition of this report (published in 2002 and covering up to the year 1995), with only certain multinational surveys added for the subsequent years.

Sales data

See Tables 1-3, Figures 1 and 2 and *Notes on sources of sales data*.

Consumption of manufactured cigarettes per adult in Yugoslavia was about 1 cigarette per day in the 1920s and 1930s. By 1960 it had increased to 4, and continued to increase to a peak of nearly 10 in 1979, then levelled at 8-9 cigarettes per day through the 1980s. The proportion of cigarettes which were filtered rose rapidly from 13% in 1966 to 88% in 1972 and 97% in 1984. There is little reliable information on consumption in the early 1990s, due to the political situation and to high levels of smuggling. Data from USDA suggest that consumption per adult at that time was around 6-7 cigarettes per day in Croatia, Slovenia and the Federal Republic of Yugoslavia, 8 in Bosnia and Herzegovina and nearly 9 in Macedonia.

For Croatia and especially for Slovenia, there are considerable discrepancies between different sources of information on consumption for more recent years, and smuggling and illegal trade have at times been major factors. Estimates from official sources for Croatia suggest that consumption per adult fluctuated around 4-7 cigarettes per day between 2004 and 2013, with estimates from KPMG (adjusting for cross-border sales, counterfeit and contraband, 2012-2014 only) 11-16% higher. For Slovenia, the (adjusted) KPMG estimates suggest that consumption per adult fell from 7 to 5 manufactured cigarettes between 2006 and 2014, while official estimates, referring to legal sales, were in the range 7-10 for the same period; consumption of hand-rolled cigarettes is estimated to have risen from a negligible level in 2006 to about 0.5 per adult per day by 2013.

Data on consumption of other tobacco products are available for only a few years. Between 1922 and 1935, consumption of all tobacco products combined per adult fell from 3 g to 2 g per day in Yugoslavia. This was largely due to a halving of the consumption of smoking tobacco. As a proportion of all tobacco, smoking tobacco fell from over 70% to 35%, while cigarettes increased from about 20% to 60%. Small amounts of cigars and chewing tobacco were used, while snuff consumption was negligible. More recent data show that manufactured cigarettes continue to be the predominant product in Croatia, accounting for at least 96% of tobacco usage during 2010-2013, while in Slovenia the percentage fell gradually to 92% over the period 2006-2014, due mainly to an increase in usage of smoking tobacco in hand-rolled cigarettes. In both countries, cigar, waterpipe and smokeless tobacco usage is very low.

Survey data

See Tables 4-8, Figures 3 and 4 and *Notes on sources of survey data*.

At the time of writing the 2nd edition, few nationally based surveys were available, either for the former Yugoslavia or the successor republics. Most estimates of the prevalence of smoking among men aged 15 years and over were around 50%; among women, they were around 10-15% in 1969-1972 and around 30% in 1985-1995. A series of surveys in Slovenia (source 33) was an exception, with prevalence in 1994, for example, 35% among men and 23% among women. One survey in Bosnia and Hercegovina in 1969 (source 9) found that smoking prevalence increased with increased age for both men and women, but this unusual pattern was not seen in the few other surveys which gave age-specific results.

Most surveys of smoking among teenagers were conducted on a local basis in Croatia. In a series of surveys among pupils in Zagreb (source 8) the prevalence of smoking decreased among boys while increasing among girls between 1966 and 1984, then decreased for both sexes, with a particularly sharp decline between 1989 and 1991. The prevalence among pupils in Croatia was higher than in Slovenia when surveyed in 1995 (sources 37-38).

Comparison of sales and survey data was possible in one case, where consumption in Croatia, scaled up to the whole Yugoslav population, under-reported by about 10%. Between 1969 and 1995, the estimated number of cigarettes smoked per person per day (sales-adjusted) was about 10-11 for men, and increased from about 2 to 5 for women.

The multinational surveys added in this edition, referring to 1996 onwards, include one survey in each of Bosnia and Herzegovina, and Macedonia, both giving estimates of the prevalence of regular smoking among those aged 15 years and over as around 44% for men and 24% for women. In Croatia, estimates of the prevalence of smoking among men were mostly in the range 35-40%, while for women, estimates for regular smoking were in the range 20-25%, or 25-30% for all smoking. In Slovenia, estimates for men were mostly in the range 20-30%, and for women in the range 15-20% for regular smoking or 20-25% for all smoking, although one national survey (source 61, in 2001) gave higher estimates (regular smoking 46% among men and 24% among women). The estimated number of cigarettes smoked per person per day (sales-adjusted) was about 7-9 for men in both countries, and for women, about 2.5-3.5 in Croatia and 3-5 in Slovenia. These results should be regarded with caution due to the uncertainty of the sales data and the limited surveys considered.

Table 1.1 Total annual sales of tobacco products, Yugoslavia

Year	Manufactured cigarettes		Cigars	Smoking tobacco	Chewing tobacco	Snuff	All tobacco products
	tonnes	millions	tonnes	tonnes	tonnes	tonnes	tonnes
1922	2 034	2 034	157	6 742	113	0	9 046
1923	2 188	2 188	198	6 078	163	0	8 631
1924	2 688	2 688	219	5 573	151	4	8 649
1925	2 866	2 866	222	5 691	130	6	8 934
1926	3 137	3 137	208	6 404	106	7	9 882
1927	3 463	3 463	213	6 453	45	6	10 197
1928	3 760	3 760	213	6 387	38	5	10 416
1929	3 997	3 997	206	6 012	34	3	10 261
1930	5 069	5 069	210	4 765	32	3	10 089
1931	5 463	5 463	199	3 731	30	4	9 440
1932	4 991	4 991	249	2 402	31	5	7 694
1933	4 815	4 815	313	2 384	27	6	7 563
1934	4 620	4 620	313	2 484	25	6	7 466
1935	4 529	4 529	285	2 498	21	6	7 351

Source: see *Notes on sources of sales data: Consumption data 1922-1935*, p. 49.
See also Table 2.1 for later years, data available only for manufactured cigarettes.

Table 1.2   Total annual sales of tobacco products, Croatia

Year	Manufactured cigarettes		Cigars		Smoking tobacco	Chewing tobacco and snuff	All tobacco products
	tonnes	millions	tonnes	millions	tonnes	tonnes	tonnes
1993		9 600					
1994		9 600					
1995		9 600					
1996		10 491					
1997		8 896					
1998		9 436					
1999		9 348					
2000		8 162					
2001		8 366					
2002		7 398					
2003		7 271					
2004		6 719					
2005		7 375					
2006		8 099					
2007		8 870					
2008		8 341					
2009		5 848					
2010	6 739	6 739	11	5	290	0.1	7 041
2011	6 871	6 871	14	6	123	0.1	7 008
2012	6 662	6 662	12	6	155	0.0	6 829
2013	6 171	6 171	13	6	182	0.4	6 367

Source: see *Notes on sources of sales data: Consumption data for 1960-2004,* p. *49 and Sales data for Croatia for 2004 onwards*, p. 50.

Table 1.3   Total annual sales of tobacco products, Slovenia

| Year | Manufactured cigarettes | | | | | Cigars | | Loose tobacco | Chewing tobacco and snuff | All tobacco products |
| | Legal sales | | Consumption | | | | | | | |
	Statistical Office ‡ millions	KPMG millions	USDA† millions	WHO millions	KPGM† millions	tonnes	millions	tonnes	tonnes	tonnes
1993			3 700							
1994			3 700							
1995			3 700							
1996			3 700	4 979						
1997		4 200	3 700	4 801						
1998		4 200	3 700	4 761						
1999		4 200	3 700	4 703						
2000		4 200	3 700	4 444						
2001		4 400	3 700							
2002		4 500	2 418							
2003		4 300	2 268							
2004		4 400	2 268			14	5			
2005	4 869	4 600				16	5	23	2	
2006	5 305	4 520			4 270	20	6	24	0	4 314
2007	5 695	4 780			4 210	16	6	44	1	4 271
2008	6 615	5 110			4 720	19	6	32	1	4 772
2009	6 304	4 980			4 230	16	6	39	6	4 291
2010	6 045	4 870			3 960	14	6	49	35	4 058
2011	5 933	4 840			3 670	16	7	74	35	3 795
2012	5 786	4 570			3 740	32	11	188	43	4 003
2013	4 693	3 860			3 070	32	11	334	11	3 447
2014	4 432	3 690			2 940	49	18	190	7	3 186

Source: see *Notes on sources of sales data: Sales and consumption data for Slovenia for 1993 onwards,* p. 51.
† Also shown in Table 2.3 and Figure 2.3.
‡ Also shown as "alternative" in Figure 2.3.

Table 1.4   Percentage of sales of tobacco in different forms (by weight), selected years

	Year	Manufactured cigarettes %	Cigars %	Smoking tobacco %	Chewing +snuff %
Yugoslavia	1925	32.1	2.5	63.8	1.5
	1935	61.7	3.9	34.0	0.4
Slovenia	2006	99.0	0.5	0.6	0.0
	2014	92.3	1.5	6.0	0.2
Croatia	2013	96.9	0.2	2.9	0.01

Source: calculated from Tables 1.1-1.3.

Figure 1   Percentage of sales of tobacco in different forms (by weight), selected years

Tobacco Sales
Percentage by weight
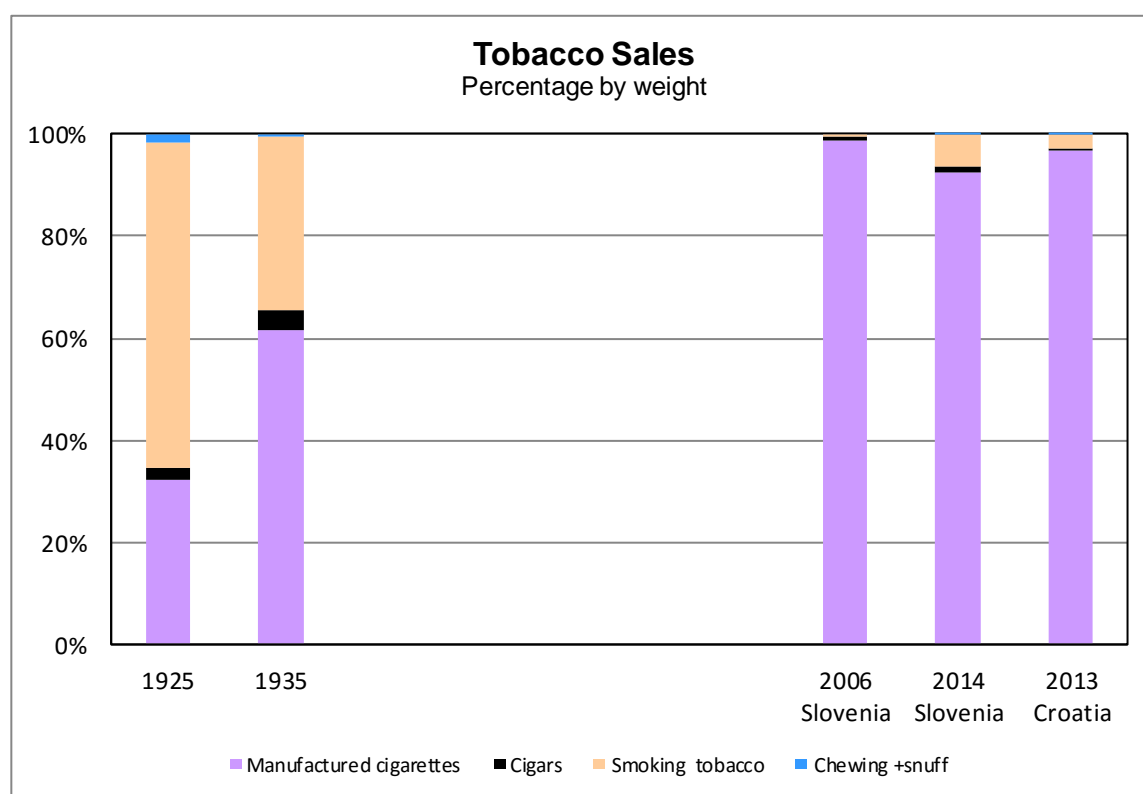
Source: Table 1.4.

Table 2.1   Sales of cigarettes and of all tobacco products, Yugoslavia.
Annual total and average per adult (age 15 years and over) per day

Year	Manufactured cigarettes		Hand-rolled cigarettes		Total cigarettes		All tobacco products	
	Total annual millions	Number/ adult/day	Total annual millions	Number/ adult/day	Total annual millions	Number/ adult/day	Total annual tonnes	Grams/ adult/day
1922	2 034	0.7					9 046	3.1
1923	2 188	0.7					8 631	2.9
1924	2 688	0.9					8 649	2.9
1925	2 866	1.0					8 934	3.0
1926	3 137	1.0					9 882	3.1
1927	3 463	1.1					10 197	3.2
1928	3 760	1.2					10 416	3.3
1929	3 997	1.3					10 261	3.3
1930	5 069	1.6					10 089	3.2
1931	5 463	1.6					9 440	2.8
1932	4 991	1.5					7 694	2.3
1933	4 815	1.4					7 563	2.2
1934	4 620	1.4					7 466	2.2
1935	4 529	1.3					7 351	2.2
1960	20 122	4.3						
1961	22 806	4.8						
1962	22 456	4.7						
1963	23 211	4.8						
1964	23 656	4.8						
1965	26 114	5.2						
1966	28 786	5.7						
1967	28 967	5.6						
1968	30 905	5.9						
1969	33 229	6.2						
1970	33 876	6.2						
1971	35 275	6.4						
1972	35 837	6.4						
1973	36 364	6.4						
1974	40 655	7.1						
1975	40 553	7.0						
1976	41 657	7.1						
1977	46 782	7.9						
1978	52 982	8.8						
1979	59 151	9.7						
1980	54 869	8.9						
1981	50 027	8.1						
1982	49 614	7.9						
1983	55 975	8.9						
1984	53 357	8.4						
1985	55 419	8.6						
1986	57 100	8.8						
1987	55 304	8.5						
1988	59 100	8.9						
1989	56 630	8.5						
1990	57 078	8.5						
1991/1	52 700	7.8						
1992/1	45 000	6.7						

1   Per adult data based on 1990 population.
Source: Manufactured cigarettes and all tobacco products 1922-1935, Table 1.1. Manufactured cigarettes 1960-1992 see *Notes on sources of sales data, Consumption data for 1960-2004*, p. 49. Population, see *Population*, Methods p. 14.
Columns for hand-rolled cigarettes and total cigarettes are shown as standard for all chapters, although for Yugoslavia no estimates are available.

Figure 2.1 Sales of (i) manufactured cigarettes and (ii) all tobacco products, Yugoslavia. Average per adult (aged 15 years and over) per day

Sales
Number /adult /day

Sales
Grams /adult /day
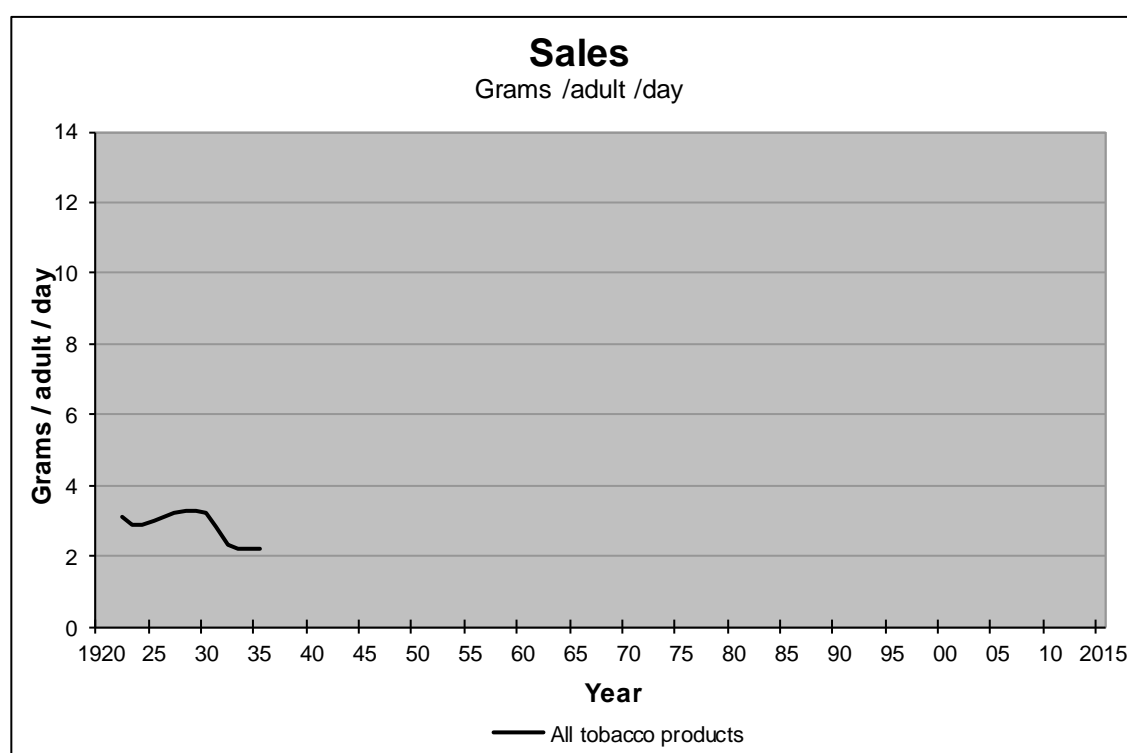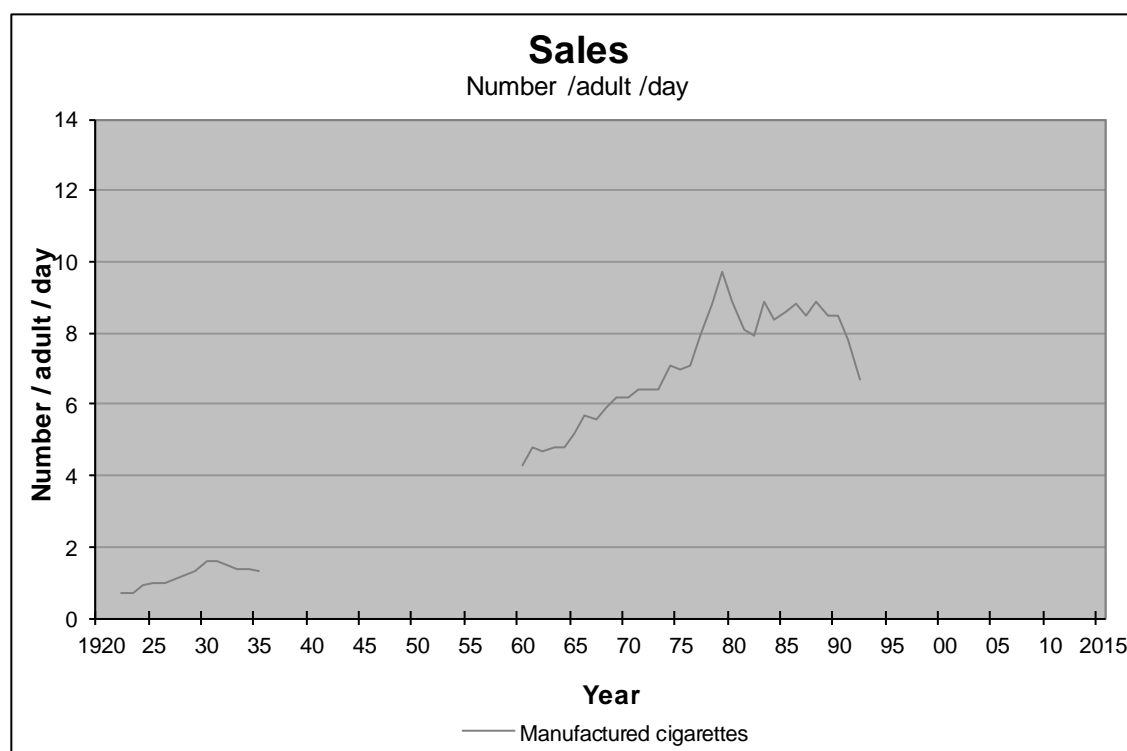
Source: Table 2.1.

Table 2.2   Sales of cigarettes and of all tobacco products, Croatia.
Annual total and average per adult (age 15 years and over) per day

Year	Manufactured cigarettes		Hand-rolled cigarettes		Total cigarettes		All tobacco products	
	Total annual millions	Number/ adult/day	Total annual millions	Number/ adult/day	Total annual millions	Number/ adult/day	Total annual tonnes	Grams/ adult/day
1993	9 600	6.8						
1994	9 600	6.8						
1995	9 600	6.8						
1996	10 491	8.0						
1997	8 896	6.7						
1998	9 436	7.2						
1999	9 348	7.0						
2000	8 162	6.4						
2001	8 366	6.3						
2002	7 398	5.5						
2003	7 271	5.4						
2004	6 719	4.9						
2005	7 375	5.4						
2006	8 099	5.9						
2007	8 870	6.5						
2008	8 341	6.1						
2009	5 848	4.3						
2010	6 739	4.9					7 041	5.1
2011	6 871	5.0					7 008	5.1
2012	6 662	5.0					6 829	5.2
2013	6 171	4.7					6 367	4.8

Source: Manufactured cigarettes and all tobacco products, Table 1.2. Population, see *Population*, Methods p. 14.
Columns for hand-rolled cigarettes and total cigarettes are shown as standard for all chapters, although for Croatia no estimates are available, see *Notes on sources of sales data: Estimates of numbers of hand-rolled cigarettes*, p. 53.

Figure 2.2 Sales of (i) manufactured cigarettes and (ii) all tobacco products, Croatia. Average per adult (aged 15 years and over) per day

Sales
Number /adult /day

Sales
Grams /adult /day
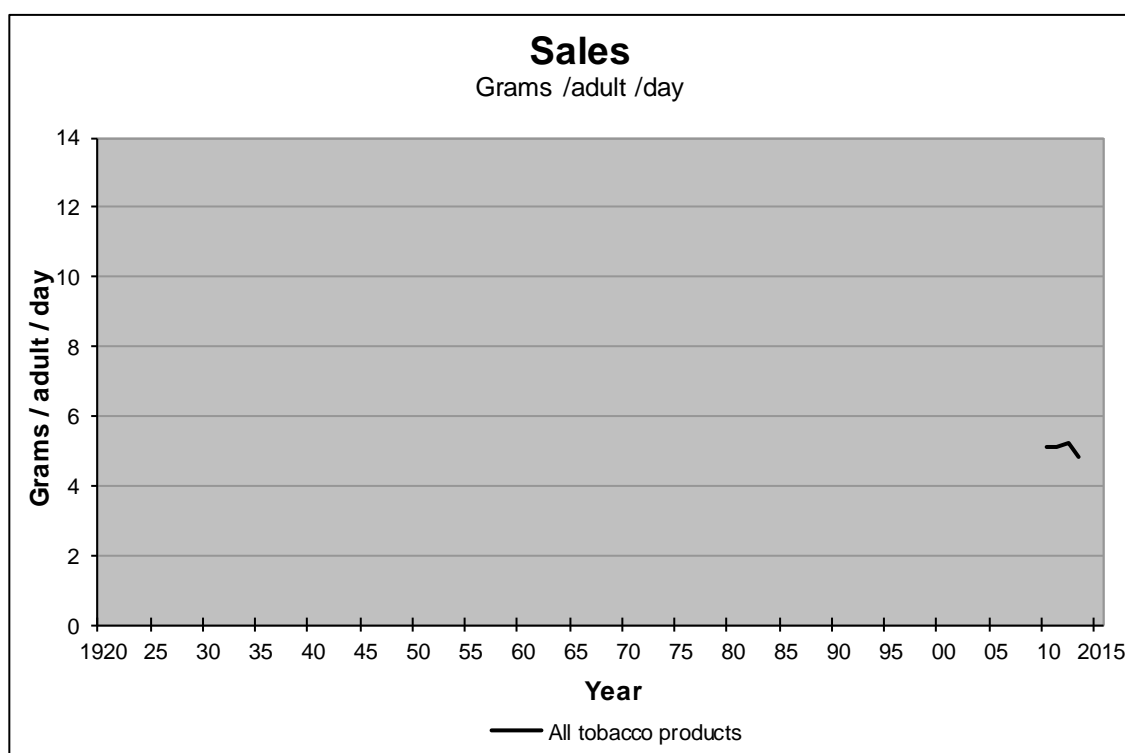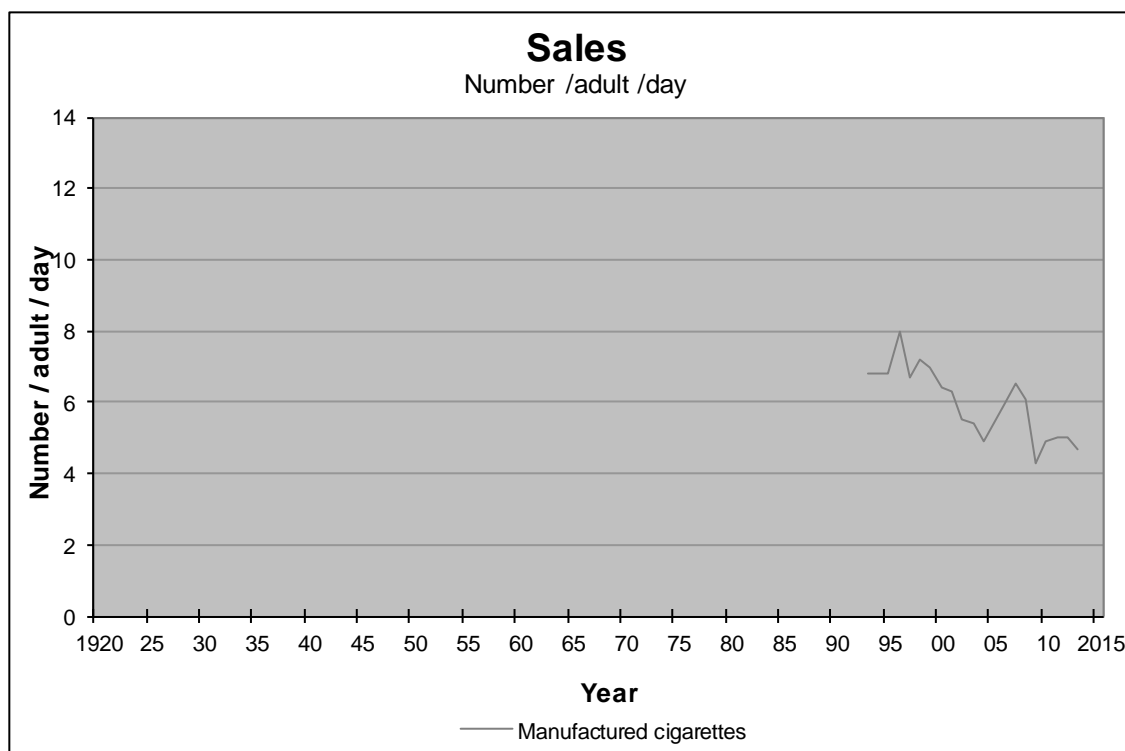
Source: Table 2.2.

Table 2.3   Sales of cigarettes (including estimated number of hand-rolled cigarettes) and of all tobacco products, Slovenia.
Annual total and average per adult (age 15 years and over) per day

Year	Manufactured cigarettes		Hand-rolled cigarettes		Total cigarettes		All tobacco products	
	Total annual millions	Number/ adult/day	Total annual millions	Number/ adult/day	Total annual millions	Number/ adult/day	Total annual tonnes	Grams/ adult/day
1993	3 700	6.3						
1994	3 700	6.3						
1995	3 700	6.2						
1996	3 700	6.2						
1997	3 700	6.2						
1998	3 700	6.2						
1999	3 700	6.1						
2000	3 700	6.1						
2001	3 700	6.0						
2002	2 418	3.9						
2003	2 268	3.7						
2004	2 268	3.6						
2006	4 270	6.8	24	0.0	4 294	6.8	4 314	6.8
2007	4 210	6.6	44	0.1	4 254	6.7	4 271	6.7
2008	4 720	7.4	32	0.1	4 752	7.4	4 772	7.4
2009	4 230	6.6	39	0.1	4 269	6.7	4 291	6.7
2010	3 960	6.2	49	0.1	4 009	6.2	4 058	6.3
2011/1	3 670	5.7	74	0.1	3 744	5.8	3 795	5.9
2012/1	3 740	5.8	188	0.3	3 928	6.1	4 003	6.2
2013/1	3 070	4.8	334	0.5	3 404	5.3	3 447	5.4
2014/1	2 940	4.6	190	0.3	3 130	4.9	3 186	5.0

1 Per adult data based on 2010 population.
Source: Manufactured cigarettes and all tobacco products, Table 1.3. Hand-rolled cigarettes, see *Notes on sources of sales data: Estimates of numbers of hand-rolled cigarette*, p. 53. Population, see *Population*, Methods p. 14.

Figure 2.3 Sales of (i) manufactured and total[1] cigarettes and (ii) all tobacco products, Slovenia.
Average per adult (aged 15 years and over) per day

Sales
### Number /adult /day

Legend: Manufactured cigarettes ----- Alternative man cigs ▬▬▬ Total cigarettes

Sales
Grams /adult /day

Legend: ▬▬▬ All tobacco products
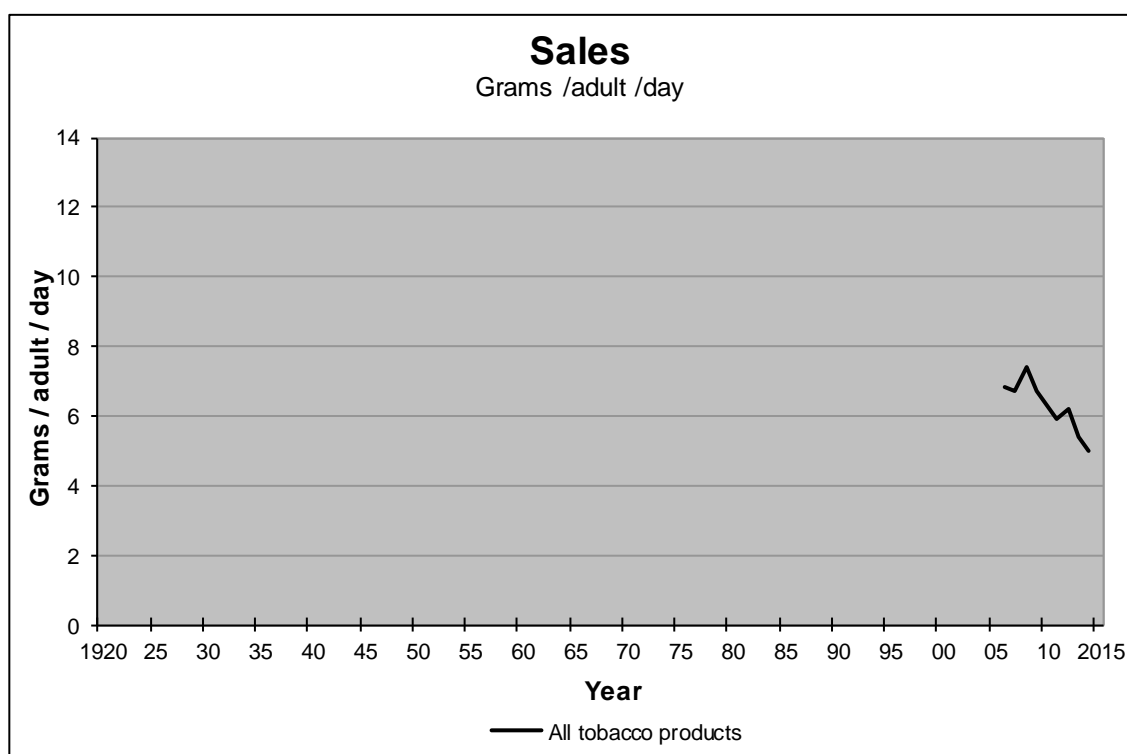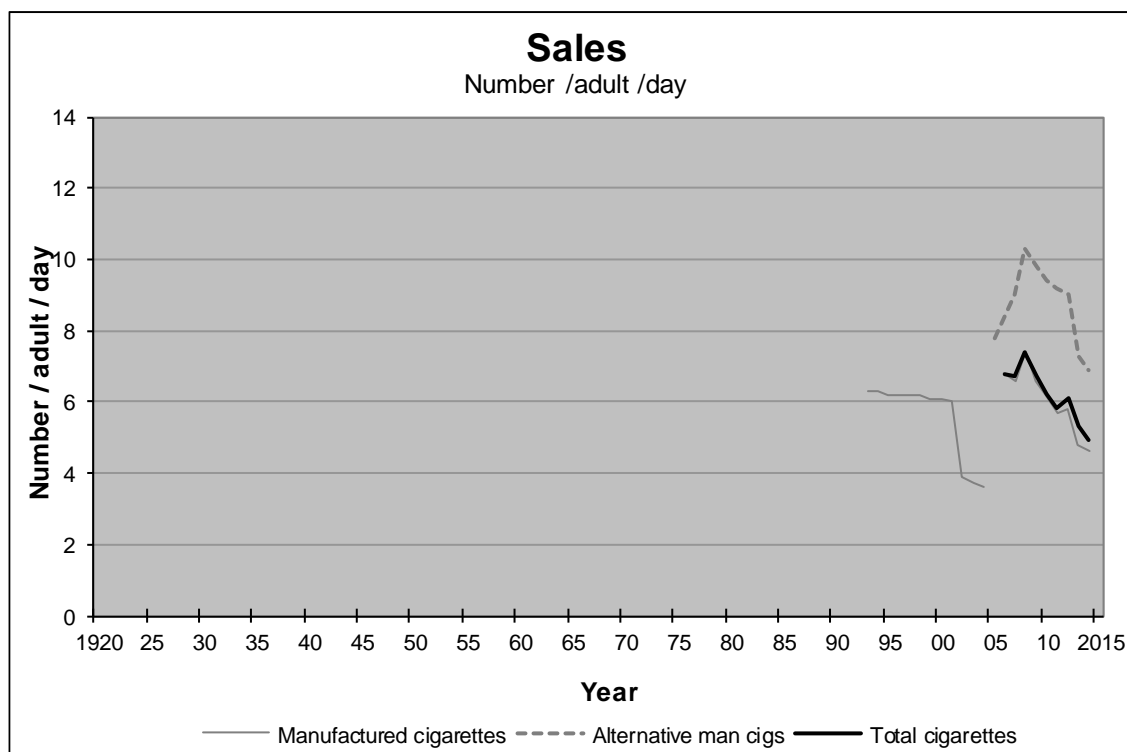
1   Includes estimated hand-rolled cigarette consumption.
Source: Table 2.3.

Table 2.4   Sales of manufactured cigarettes, non-EU republics.
Annual total and average per adult (age 15 years and over) per day

Year	Bosnia & Herzegovina	
	Total annual millions	Number/ adult/day
1993-2004[1]	9 600	7.7

Year	Macedonia	
	Total annual millions	Number/ adult/day
1993-1997[1]	4 600	8.7
1998-2004[1]	4 700	8.4

Year	Federal Rupublic of Yugoslavia	
	Total annual millions	Number/ adult/day
1992	16 650	5.7
1993	17 900	6.1
1994	22 700	7.6
1995	22 650	7.6
1996	22 300	7.4
1997	22 300	7.4
1998-2003[1]	22 300	7.3

1   Data for each of the years in the range shown (for cigarette consumption, and also for other measures not shown here) are identical in the source. Per adult calculation based on population in the first year, except Bosnia & Herzegovina where it is based on 1991 population.
Source: see *Notes on sources of sales data: Consumption data for 1960*, p.49. Population, see *Population*, Methods p. 14.

Table 3   Manufactured cigarettes: percentage of total sales as filter cigarettes, Yugoslavia

Year	Filter %
1966	12.8
1967	20.4
1968	40.1
1969	62.2
1970	71.3
1971	79.5
1972	88.4
1984	97

Source: see *Notes on sources of sales data: Plain/Filter cigarette sales,* p. 53.
The notes also provide limited information on plain/filter cigarettes in other republics, and there is limited information in the Notes on *Menthol cigarette sales*, p. 53, *King-size and slim cigarette sales,* p. 53, and *Tar and nicotine machine yields of cigarettes*, p. 53.

Yugoslavia and non-EU successor countries

Year	Source	Product	Frequency	12	13	14	15	16	17	18	19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All ages
62	3	UC	R													49	48	51	46						48
63	4	UC	R													62	63	67	59						63
64	5	UC	R													50	46	38	32						43
64	6	UC	U															70							
69	9	UC	U					28					50		64		66		66						
69	9	A	U					28					51		66		72		73						60
74	13	U	U					46																	
80	27	U	U											70											
83	28	U	U						38																
84	29	UC	R										70		58		46		36						48
84	29	UC	A										72		59		47		39						50
84	29	A	A										72		59		47		39						50
84	30	MC	R												56										
85	27	U	U												52										
89	29	UC	R										60		58		45		38						48
89	29	UC	A										64		60		46		40						50
89	29	A	A										64		60		46		40						50
90	27	U	U										61												
94	29	UC	R										63		60		47		35						49
94	29	UC	A										65		60		50		38						51
94	29	A	A										65		60		50		38						51
95	36	U	U												45										
99	42	UC	*				25																		
99	42	UC	A				38																		
02	46	A	*		2		11																		
02	46	A	R		3		15																		
02	57	UC	*			3																			
02	57	UC	A			9																			
02	57	A*	A			12																			
03	48	U	R														46								
03	48	U	A														54								
03	54	UC	*			3																			
03	54	UC	A			14																			
03	54	A*	A			15																			
03	59	UC	*			7																			
03	59	UC	A			16																			
03	59	A*	A			16																			
04	56	UC	*			1																			
04	56	UC	A			8																			
04	56	A*	A			13																			
04	58	UC	*			1																			
04	58	UC	A			4																			
04	58	A*	A			5																			
06	46	A	*		1		10																		
06	46	A	R		2		14																		
08	54	UC	*			4																			
08	54	UC	A			14																			
08	54	A*	A			16																			
08	57	UC	A			10																			
08	57	A*	A			12																			
08	58	UC	*			1																			
08	58	UC	A			6																			
08	58	A*	A			7																			

Yugoslavia and non-EU successor countries

Year	Source	Product	Frequency	12	13	14	15	16	17	18	19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All ages
62	3	UC	R																						
63	4	UC	R																						
64	5	UC	R																						
64	6	UC	U																						
69	9	UC	U						3				9		15		26		28						
69	9	A	U						3				9		15		26		28						13
74	13	U	U				23																		
80	27	U	U										48												
83	28	U	U						44																
84	29	UC	R										48		36		22		17						26
84	29	UC	A										54		40		23		20						29
84	29	A	A										54		40		23		20						29
84	30	MC	R																						
85	27	U	U												31										
89	29	UC	R										49		38		21		12						25
89	29	UC	A										51		43		24		13						29
89	29	A	A										51		43		24		13						29
90	27	U	U										40												
94	29	UC	R										49		41		27		17						30
94	29	UC	A										53		47		30		18						33
94	29	A	A										53		47		29		18						33
95	36	U	U												30										
99	42	UC	*				24																		
99	42	UC	A				35																		
02	46	A	*		1		9																		
02	46	A	R		1		13																		
02	57	UC	*			1																			
02	57	UC	A			7																			
02	57	A*	A			8																			
03	48	U	R												25										
03	48	U	A												34										
03	54	UC	*			2																			
03	54	UC	A			9																			
03	54	A*	A			10																			
03	59	UC	*			7																			
03	59	UC	A			17																			
03	59	A*	A			17																			
04	56	UC	*			1																			
04	56	UC	A			6																			
04	56	A*	A			8																			
04	58	UC	*			1																			
04	58	UC	A			3																			
04	58	A*	A			4																			
06	46	A	*		0		9																		
06	46	A	R		2		14																		
08	54	UC	*			2																			
08	54	UC	A			9																			
08	54	A*	A			11																			
08	57	UC	A			10																			
08	57	A*	A			12																			
08	58	UC	*			1																			
08	58	UC	A			4																			
08	58	A*	A			6																			

Yugoslavia and non-EU successor countries (*continued*)

Year	Source	Product	Frequency	12	13	14	15	16	17	18	19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All ages
09	53	MC	R						37					44			61				33				44
09	53	TC	R						41					46			61				35				46
09	53	MC	A						41					47			62				34				46
09	53	TC	A						41					46			61				35				46
09	53	A	A						41					47			63				35				47
10	46	A	*		1		9																		
10	46	A	R		2		14																		
11	39	UC	*				9																		
11	39	UC	A				16																		
11	40	UC	*				26																		
11	40	UC	A				35																		
11	41	UC	*				9																		
11	41	UC	A				16																		
11	43	UC	*				10																		
11	43	UC	A				15																		
11	44	UC	*				14																		
11	44	UC	A				20																		
14	46	A	*		1		8																		
14	46	A	R		2		11																		

Croatia

Year	Source	Product	Frequency	12	13	14	15	16	17	18	19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All ages
58	1	UC	R													54	58	63	56						58
58	2	UC	R													58	56	67	60						60
64	7	UC	U													59									
66	8	U	*				29	44	45	46															41
70	10	U	U												57										
72	11	UC	R														52								
72	12	UC	R									55		58		60		54							57
73	8	U	*	4	4	16	28	36	45	52															39
75	14	U	*				17	19	28	54															
79	15	U	*				13	20	34	53															
84	8	U	*				21	26	35	38															29
84	16	U	*				20																		
84	17	U	*				4	6	24	10															
84	18	U	*				3	6	20	11															
85	19	U	*				7	24																	
86	20	U	*				27	30	29	52															
86	21	U	*				10	18	22	36															
86	22	U	*				15	15	15	21															
86	23	U	*				9	19	32	38															
86	24	U	*					19																	
86	31	UC	U				51																		
87	32	U	U															46							
89	8	U	*				14	20	35	40															27
89	25	U	*				23	34	23	36															

Table 4F   *(continued from p. 21, continues on p. 25)*
Prevalence of smoking, females

Yugoslavia and non-EU successor countries (*continued*)

Year	Source	Product	Frequency	12	13	14	15	16	17	18	19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All ages
09	53	MC	R						20				25			34					18				24
09	53	TC	R						24				27			37					21				27
09	53	MC	A						24				28			38					20				28
09	53	TC	A						24				27			38					21				27
09	53	A	A						24				28			38					21				28
10	46	A	*		1		7																		
10	46	A	R		1		9																		
11	39	UC	*				7																		
11	39	UC	A				14																		
11	40	UC	*				17																		
11	40	UC	A				28																		
11	41	UC	*				0																		
11	41	UC	A				5																		
11	43	UC	*				5																		
11	43	UC	A				9																		
11	44	UC	*				12																		
11	44	UC	A				19																		
14	46	A	*		1		6																		
14	46	A	R		1		9																		

Croatia

Year	Source	Product	Frequency	12	13	14	15	16	17	18	19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All ages
58	1	UC	R																						
58	2	UC	R																						
64	7	UC	U																						
66	8	U	*				3	12	10	22															11
70	10	U	U											10											
72	11	UC	R															15							
72	12	UC	R										12		11		10		7						10
73	8	U	*	0	1	4	13	16	21	30															20
75	14	U	*				0	6	25	38															
79	15	U	*				3	7	8	7															
84	8	U	*				10	20	27	34															20
84	16	U	*				19																		
84	17	U	*				5	7	22	26															
84	18	U	*				6	2	14	30															
85	19	U	*				3	12																	
86	20	U	*				19	26	32	47															
86	21	U	*				10	27	19	44															
86	22	U	*				8	12	12	10															
86	23	U	*				7	16	23	34															
86	24	U	*					8																	
86	31	UC	U				44																		
87	32	U	U																12						
89	8	U	*				7	15	22	37															19
89	25	U	*				9	12	21	27															

Croatia (*continued*)

Year	Source	Product	Frequency	12	13	14	15	16	17	18	19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All ages
91	8	U	*	1	1	4	7	10	15	23															15
91	26	U	*				22	24	26	31															
94	35	UC	*	14	16	21	26	16																	15
95	37	UC	*				25																		
95	37	UC	A				34																		
99	37	UC	*				30																		
99	37	UC	A				40																		
02	45	A	*		3		17																		
02	45	A	R		6		23																		
02	55	UC	*			4																			
02	55	UC	A			19																			
02	55	A*	A			19																			
03	37	UC	*				30																		
03	37	UC	A				36																		
03	49	U	R														30								
03	49	U	A														31								
05	51	MC	R						42					41		42					20				36
05	51	TC	R						42					42		42					20				36
05	51	A	R						42					42		42					20				36
05	51	MC	U						46					48		47					21				40
05	51	TC	U						49					49		47					21				40
05	51	A	U						49					49		47					21				40
06	45	A	*		3		19																		
06	45	A	R		5		24																		
06	51	MC	R						37					43		40					30				37
06	51	TC	R						39					43		41					31				38
06	51	A	R						39					43		41					31				38
06	51	MC	U						44					47		41					32				41
06	51	TC	U						46					49		42					33				42
06	51	A	U						46					49		42					33				42
07	37	UC	*				29																		
07	37	UC	A				38																		
07	55	UC	*			8																			
07	55	UC	A			22																			
07	55	A*	A			23																			
09	51	MC	R						31					53		43					18				36
09	51	TC	R						32					54		46					22				38
09	51	MC	A						34					55		45					20				38
09	51	TC	A						32					55		46					22				39
09	51	A	A						34					56		47					23				40
10	45	A	*		4		21																		
10	45	A	R		8		27																		
10	63	TC	R														31								
10	63	TC	A							24				42				34				15			31
11	37	UC	*				31																		
11	37	UC	A				41																		
11	55	MC	*			12																			
11	55	UC	A			27																			
11	55	A*	A			29																			
14	45	A	*		4		19																		
14	45	A	R		5		25																		

Table 4F *(continued from p. 23, continues on p. 29)*
Prevalence of smoking, females

Croatia (*continued***)**

Year	Source	Product	Frequency	12	13	14	15	16	17	18	19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All ages
91	8	U	*	0	0	2	4	10	12	21															12
91	26	U	*				4	10	13	25															
94	35	UC	*																						
95	37	UC	*				19																		
95	37	UC	A				28																		
99	37	UC	*				25																		
99	37	UC	A				36																		
02	45	A	*		1		17																		
02	45	A	R		4		25																		
02	55	UC	*		3																				
02	55	UC	A			14																			
02	55	A*	A			15																			
03	37	UC	*					27																	
03	37	UC	A					37																	
03	49	U	R														18								
03	49	U	A														23								
05	51	MC	R						30					37			33				11				25
05	51	TC	R						31					38			33				11				26
05	51	A	R						31					38			33				11				26
05	51	MC	U						42					47			39				13				32
05	51	TC	U						43					47			39				13				32
05	51	A	U						43					47			39				13				32
06	45	A	*		2		21																		
06	45	A	R		5		28																		
06	51	MC	R						23					29			26				8				19
06	51	TC	R						23					29			27				8				20
06	51	A	R						23					29			27				8				20
06	51	MC	U						30					35			32				10				25
06	51	TC	U						30					36			33				10				25
06	51	A	U						30					36			33				11				25
07	37	UC	*					27																	
07	37	UC	A					39																	
07	55	UC	*			9																			
07	55	UC	A			26																			
07	55	A*	A			26																			
09	51	MC	R						17					32			33				17				24
09	51	TC	R						17					35			35				17				25
09	51	MC	A						19					35			35				17				26
09	51	TC	A						17					35			35				17				26
09	51	A	A						19					37			35				17				26
10	45	A	*		2		19																		
10	45	A	R		5		25																		
10	63	TC	R														21								
10	63	TC	A									34		31				26				5			23
11	37	UC	*					27																	
11	37	UC	A					41																	
11	55	MC	*			11																			
11	55	UC	A			27																			
11	55	A*	A			28																			
14	45	A	*		2		17																		
14	45	A	R		3		21																		

Table 4M
Prevalence of smoking, males

Slovenia

Year	Source	Product	Frequency	12	13	14	15	16	17	18	19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All ages
88	33	U	R														42								
89	34	U	U											54											
94	33	U	R														35								
95	38	UC	*				16																		
95	38	UC	A				19																		
96	33	U	R														33								
99	38	UC	*				23																		
99	38	UC	A				28																		
01	61	U	R									34		39		54		54		52		52	*	*	47
01	61	U	A									46		52		60		58		57		65	*	*	56
02	47	A	*		4		23																		
02	47	A	R		6		30																		
02	52	U	U									42			35		41				24				35
03	38	UC	*				23																		
03	38	UC	A				35																		
03	50	U	R														25								
03	50	U	A														28								
03	60	UC	*			8																			
03	60	UC	A			25																			
03	60	A*	A			27																			
05	52	MC	R									23			29		25				17				23
05	52	TC	R									25			29		24				17				24
05	52	A	R									25			29		24				17				24
05	52	MC	U									32			34		28				20				28
05	52	TC	U									34			34		28				20				29
05	52	A	U									34			34		28				20				29
06	47	A	*		1		14																		
06	47	A	R		3		20																		
06	52	MC	R									24			29		20				9				20
06	52	TC	R									24			30		20				10				21
06	52	A	R									24			30		20				10				21
06	52	MC	U									32			37		22				11				25
06	52	TC	U									33			38		22				12				25
06	52	A	U									33			38		22				12				25
07	38	UC	*				20																		
07	38	UC	A				28																		
07	62	TC	R									21		34		27		22		16		7	11	*	22
09	52	MC	R									24			29		37				21				28
09	52	TC	R									26			33		40				22				31
09	52	MC	A									29			34		40				22				31
09	52	TC	A									29			34		42				22				32
09	52	A	A									31			34		42				22				32
10	47	A	*		2		14																		
10	47	A	R		3		20																		
11	38	UC	*				18																		
11	38	UC	A				30																		
11	60	MC	*			4																			
11	60	UC	A			13																			
11	60	A*	A			17																			

Slovenia

Year	Source	Product	Frequency	12	13	14	15	16	17	18	19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All ages
88	33	U	R													27									
89	34	U	U										48												
94	33	U	R													23									
95	38	UC	*				15																		
95	38	UC	A				20																		
96	33	U	R													21									
99	38	UC	*				25																		
99	38	UC	A				30																		
01	61	U	R										23		35		37		28		10	13	13	*	24
01	61	U	A										41		47		50		41		22	15	*	*	34
02	47	A	*		2		23																		
02	47	A	R		4		30																		
02	52	U	U										40			38			27			8			25
03	38	UC	*				26																		
03	38	UC	A				38																		
03	50	U	R														16								
03	50	U	A														19								
03	60	UC	*			9																			
03	60	UC	A			30																			
03	60	A*	A			29																			
05	52	MC	R										23			26			23			8			18
05	52	TC	R										23			27			23			8			18
05	52	A	R										23			27			23			8			18
05	52	MC	U										34			31			29			12			24
05	52	TC	U										34			32			29			12			24
05	52	A	U										34			32			29			12			24
06	47	A	*		1		12																		
06	47	A	R		3		16																		
06	52	MC	R										26			17			23			6			16
06	52	TC	R										26			17			23			6			16
06	52	A	R										26			17			23			6			16
06	52	MC	U										30			22			32			9			21
06	52	TC	U										30			23			32			9			21
06	52	A	U										30			23			32			9			21
07	38	UC	*				22																		
07	38	UC	A				31																		
07	62	TC	R										15		22		18		23		15	5	2	*	16
09	52	MC	R										29			28			18			10			19
09	52	TC	R										36			29			18			11			20
09	52	MC	A										36			29			18			11			21
09	52	TC	A										36			29			18			11			21
09	52	A	A										36			29			19			11			21
10	47	A	*		1		13																		
10	47	A	R		3		19																		
11	38	UC	*				20																		
11	38	UC	A				34																		
11	60	MC	*			6																			
11	60	UC	A			20																			
11	60	A*	A			22																			

Slovenia *(continued)*

Year	Source	Product	Frequency	12	13	14	15	16	17	18	19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All ages
12	52	MC	R							33			37			29				14					27
12	52	TC	R							33			41			29				14					28
12	52	A	R							33			41			29				14					28
12	52	MC	A							36			40			31				14					29
12	52	TC	A							36			42			31				14					30
12	52	A	A							37			42			31				14					30
14	47	A	*		2		9																		
14	47	A	R		3		15																		

Slovenia *(continued)*

Year	Source	Product	Frequency	12	13	14	15	16	17	18	19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All ages
12	52	MC	R						21					22			28				15				21
12	52	TC	R						22					22			29				16				21
12	52	A	R						22					22			29				16				21
12	52	MC	A						28					24			34				18				25
12	52	TC	A						30					24			34				18				25
12	52	A	A						30					24			35				18				25
14	47	A	*		0		8																		
14	47	A	R		1		12																		

Source: see *Notes on sources of survey data*, p. 54 Frequency: A = all smokers (including occasional)
Product: MC = manufactured cigarettes R = regular or daily smokers
TC = total cigarettes (including hand-rolled) U = unspecified
UC = cigarettes (type unspecified) * = refer to *Notes on sources of survey data*, p. 54
A = all products All ages: relates to ages reported; as given in original source

Table 5M Number of cigarettes smoked per smoker per day, males:
selected surveys by age
(continues on p. 32)

Yugoslavia and non-EU successor countries

Year	Source	Product	Estimated	12	13	14	15	16	17	18	19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All ages
62	3	UC	E													16	17	14	14						15
63	4	UC	E													16	17	16	16						16
64	5	UC	E													20	18	19	20						19
69	9	A	E*														18		18						
84	29	UC											23		25		24		23						24
89	29	UC											22		25		25		21						24
94	29	UC											23		26		24		22						24
99	42	UC	E				12																		
03	48	UC																	23						
09	53	TC					15							23			23				21				21
11	39	UC	E				12																		
11	40	UC	E				14																		
11	41	UC	E				14																		
11	43	UC	E				16																		
11	44	UC	E				14																		

Croatia

Year	Source	Product	Estimated	12	13	14	15	16	17	18	19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All ages
58	1	UC	E													16	17	17	18						17
58	2	UC	E													16	15	16	16						16
72	11	UC	E														22								
72	12	UC	E*									20		20		20		20							20
86	31	UC				9.9																			
87	32	UC	E*															18							
94	35	UC			2.6																				
95	37	UC	E				13																		
99	37	UC	E				14																		
03	37	UC	E				13																		
03	49	UC																	22						
05	51	TC	E					13					18			19				21					18
06	51	TC	E					16					16			24				19					19
07	37	UC	E				13																		
09	51	TC					15						22			25				25					22
10	63	MC																	20						
10	63	TC																	22						
11	37	UC	E				13																		

Table 5F   Number of cigarettes smoked per smoker per day, females: selected surveys by age

Yugoslavia and non-EU successor countries

Year	Source	Product	Est	12	13	14	15	16	17	18	19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All ages
62	3	UC	E																						
63	4	UC	E																						
64	5	UC	E																						
69	9	A	E*														12		13						
84	29	UC											16		17		17		16						17
89	29	UC											16		20		18		18						19
94	29	UC											17		20		19		15						18
99	42	UC	E				9.5																		
03	48	UC																20							
09	53	TC							8.7					14			15				14				13
11	39	UC	E				11																		
11	40	UC	E				12																		
11	41	UC	E																						
11	43	UC	E				12																		
11	44	UC	E				11																		

Croatia

Year	Source	Product	Est	12	13	14	15	16	17	18	19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All ages
58	1	UC	E																						
58	2	UC	E																						
72	11	UC	E														16								
72	12	UC	E*										13		15		15		16						15
86	31	UC					6.8																		
87	32	UC	E*																14						
94	35	UC																							
95	37	UC	E				10																		
99	37	UC	E				13																		
03	37	UC	E				12																		
03	49	UC																15							
05	51	TC	E						11					12			14				11				12
06	51	TC	E						10					13			15				14				13
07	37	UC	E				11																		
09	51	TC							9.4					16			13				14				14
10	63	MC																13							
10	63	TC																14							
11	37	UC	E				12																		

Table 5M *(continued from p. 30)*
Number of cigarettes smoked per smoker per day, males

Slovenia

Year	Source	Product	Estimated	12	13	14	15	16	17	18	19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All ages
95	38	UC	E				11																		
99	38	UC	E				9.5																		
01	61	UC	E*							16			17		22		23		23		18		*	*	20
03	38	UC	E				11																		
03	50	UC														19									
05	52	TC	E						13					15			16			21					16
06	52	TC	E						15					15			19			15					16
07	38	UC	E				12																		
07	62	TC	E*							20			19		19		20		20		18		23	*	20
09	52	TC							14					17			23			21					20
11	38	UC	E				9.8																		
12	52	TC							11					19			16			20					17

Source: see *Notes on sources of survey data*, p. 54
Product: MC = manufactured cigarettes
TC = total cigarettes (including hand-rolled)
UC = cigarettes (type unspecified)
A = all products
U = unspecified

Estimated: E = mean estimated from percentage distribution
(see also *Consumption category estimation*, Methods p. 11, and Appendix III)
* = refer to *Notes on sources of survey data*, p. 54
All ages: relates to ages reported; as given in original source

Slovenia

Year	Source	Product	Estimated	12	13	14	15	16	17	18	19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All ages
95	38	UC	E				8.8																		
99	38	UC	E				9.2																		
01	61	UC	E*									12	13		15		16		13		19		13	*	15
03	38	UC	E				9.5																		
03	50	UC														17									
05	52	TC	E						13				13				13				11				13
06	52	TC	E						15				11				12				12				12
07	38	UC	E				9.5																		
07	62	TC	E*						15				14		15		13		13		*		*	*	14
09	52	TC							13				14				13				14				13
11	38	UC	E				8.8																		
12	52	TC							9.0				12				13				12				12

Table 6M   Number of cigarettes smoked per person per day, males:
selected surveys by age; with percentage total sales
(continues on p. 36)

Yugoslavia and non-EU successor countries

Year	Source	Product	12	13	14	15	16	17	18	19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All ages	% Total sales
62	3	UC													7.6	8.0	7.3	6.4						8.0	**
63	4	UC													9.8	11	11	9.3						12	**
64	5	UC													9.9	8.2	7.1	6.4						10	**
69	9	A														13		13							**
84	29	UC										16		15		11		8.3						12	**
89	29	UC										13		15		11		8.2						12	**
94	29	UC										15		15		11		7.6						12	**
99	42	UC				3.0																			
03	48	UC*													11										
09	53	TC						6.3					11			14				7.1				9.8	
11	39	UC				1.1																			
11	40	UC				3.7																			
11	41	UC				1.3																			
11	43	UC				1.6																			
11	44	UC				2.0																			

Croatia

Year	Source	Product	12	13	14	15	16	17	18	19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All ages	% Total sales
58	1	UC													8.3	9.8	10	10						9.9	**
58	2	UC													9.5	8.5	10	9.3						9.5	**
72	11	UC															12								**
72	12	UC*										11		12		12		11						11	89%m
86	31	UC				5.1																			**
87	32	UC*																	8.1						**
94	35	UC			0.4																				**
95	37	UC				3.3																			**
99	37	UC				4.2																			**
03	37	UC				4.0																			**
03	49	UC*													6.6										82%m
05	51	TC						5.4					7.8			8.0				4.2				6.4	87%m
06	51	TC						6.4					6.8			9.9				5.8				7.3	81%m
07	37	UC				3.9																			**
09	51	TC						4.9					12			12				5.4				8.6	139%m
10	63	TC													7.0										99%m
11	37	UC				4.1																			**

Table 6F   Number of cigarettes smoked per person per day, females:
selected surveys by age; with percentage total sales

Yugoslavia and non-EU successor countries

Year	Source	Product	12	13	14	15	16	17	18	19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All ages	% Total sales
62	3	UC																							**
63	4	UC																							**
64	5	UC																							**
69	9	A														3.0	3.5								**
84	29	UC										7.7		6.2		3.8		2.7						4.5	**
89	29	UC										7.9		7.7		3.8		2.0						4.8	**
94	29	UC										8.5		8.2		5.1		2.6						5.7	**
99	42	UC				2.3																			**
03	48	UC*													5.0										**
09	53	TC						2.1					3.8			5.4				2.8				3.6	
11	39	UC				0.7																			**
11	40	UC				2.0																			**
11	41	UC				0.0																			**
11	43	UC				0.6																			**
11	44	UC				1.4																			**

Croatia

Year	Source	Product	12	13	14	15	16	17	18	19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All ages	% Total sales
58	1	UC																							**
58	2	UC																							**
72	11	UC													2.3										**
72	12	UC*						1.6					1.7			1.5		1.1						1.5	89%m
86	31	UC				3.0																			**
87	32	UC*																1.6							**
94	35	UC																							**
95	37	UC				2.0																			**
99	37	UC				3.2																			**
03	37	UC				3.1																			**
03	49	UC*														2.6									82%m
05	51	TC						3.3					4.7			4.6			1.2					3.2	87%m
06	51	TC						2.3					3.7			4.0			1.1					2.6	81%m
07	37	UC				3.1																			**
09	51	TC						1.6					5.4			4.6			2.4					3.5	139%m
10	63	TC													3.1										99%m
11	37	UC				3.4																			**

Slovenia

Year	Source	Product	12	13	14	15	16	17	18	19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All ages	% Total sales
95	38	UC				1.7																			**
99	38	UC				2.2																			**
01	61	UC*								5.3		6.8		12		12		12		9.6			*	*	9.4	105%m
03	38	UC				2.5																			**
03	50	UC*													4.6										98%m
05	52	TC					3.3					4.5			3.9				3.4					3.8	45%T
06	52	TC					3.6					4.6			3.9				1.5					3.3	39%T
07	38	UC				2.3																			**
07	62	TC*						4.2				6.4		5.2		4.4		3.3	1.2		2.6		*	4.3	48%T
09	52	TC						3.7					5.5		9.4				4.7					6.1	66%T
11	38	UC				1.8																			**
12	52	TC						3.7					7.7		4.6				2.8					4.8	60%T

Source:	*Notes on sources of survey data*, p. 54	
Product:	MC = manufactured cigarettes	
	TC = total cigarettes (including hand-rolled)	
	UC = cigarettes (type unspecified)	
	A = all products	
	U = unspecified	

*	= refer to *Notes on sources of survey data*, p. 54	
All ages:	relates to ages reported; as given in original source	
% Total sales:	estimated % of total sales of M = manufactured or T = total cigarette consumption implied by survey, sexes combined	
**	= cannot be calculated	
--	= adjusted by original author	
	Not calculated after 1995 except Croatia and Slovenia	

Table 6F   *(continued from p. 35)*
Number of cigarettes smoked per smoker per day, males

Slovenia

Year	Source	Product	12	13	14	15	16	17	18	19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All ages	% Total sales
95	38	UC				1.3																			**
99	38	UC				2.3																			**
01	61	UC*						2.8				4.6		5.6		4.6		1.4		2.5		1.6	*	3.5	105%m
03	38	UC				2.5																			**
03	50	UC*												2.7											98%m
05	52	TC						2.9					3.5		3.0				0.9					2.3	45%T
06	52	TC						3.8					1.9		2.8				0.7					2.0	39%T
07	38	UC				2.1																			**
07	62	TC*						2.2				3.1		2.6		3.0		2.0		*		*	*	2.1	48%T
09	52	TC						4.5					4.1		2.3				1.5					2.7	66%T
11	38	UC				1.8																			**
12	52	TC						2.0					2.6		3.8				1.9					2.6	60%T

Table 7M Number of cigarettes smoked per person per day, sales-adjusted, males: selected surveys[1] by age; with percentage total sales

Yugoslavia and non-EU successor countries: no data

Croatia

Year	Source	Product	12	13	14	15	16	17	18	19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All ages	% Total sales
72	12	UC*									12		13		14		12							13	89%m
03	49	UC*													8.0										82%m
05	51	TC									6.2		9.0		9.2				4.8					7.3	87%m
06	51	TC									7.9		8.4		12				7.1					8.9	81%m
09	51	TC									3.5		8.4		8.3				3.9					6.2	139%m
10	63	TC													7.0										99%m

Slovenia

Year	Source	Product	12	13	14	15	16	17	18	19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All ages	% Total sales
01	61	UC*								5.1			6.4	11		12		11		9.1		*	*	9.0	105%m
03	50	UC*													4.7										98%m
05	52	TC									7.4		10		8.6				7.7					8.5	45%T
06	52	TC									9.3		12		10				3.8					8.6	39%T
07	62	TC*									8.8		13	11		9.3		6.9	2.6			5.5	*	9.1	48%T
09	52	TC									5.6		8.4		14				7.1					9.3	66%T
12	52	TC									6.1		13		7.8				4.8					8.0	60%T

1 Based on those surveys in Table 6 with data for both sexes and age range at least 21-64 (see *Cigarette consumption per person*, Methods p. 11).

Source:	*Notes on sources of survey data*, p. 54	*	= refer to *Notes on sources of survey data*, p. 54
Product:	MC = manufactured cigarettes	All ages:	relates to ages reported; as given in original source
	TC = total cigarettes (including hand-rolled)	% Total sales:	Adjustment factor used, estimated % of total sales
	UC = cigarettes (type unspecified)		of M = manufactured or T = total cigarette consumption
	A = all products		implied by survey, sexes combined
	U = unspecified		-- = adjusted by original author

Table 7F   Number of cigarettes smoked per person per day, sales-adjusted, females: selected surveys[1] by age; with percentage total sales

Croatia

Year	Source	Product	12	13	14	15	16	17	18	19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All ages	% Total sales
72	12	UC*									1.8		1.9		1.7		1.2							1.6	89%m
03	49	UC*													3.1										82%m
05	51	TC					3.8						5.4		5.3					1.4					3.7	87%m
06	51	TC					2.8						4.6		4.9					1.3					3.2	81%m
09	51	TC					1.1						3.8		3.3					1.7					2.5	139%m
10	63	TC													3.1										99%m

Slovenia

Year	Source	Product	12	13	14	15	16	17	18	19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	All ages	% Total sales
01	61	UC*									2.6		4.3	5.3		4.4	1.3		2.3			1.5	*	3.3	105%m
03	50	UC*													2.8										98%m
05	52	TC					6.4						7.8		6.6					2.0					5.1	45%T
06	52	TC					9.9						4.9		7.1					1.7					5.1	39%T
07	62	TC*					4.6						6.6	5.5		6.4	4.3		*		*		*	4.5	48%T
09	52	TC					6.9						6.3		3.5					2.2					4.1	66%T
12	52	TC					3.4						4.3		6.4					3.2					4.3	60%T

1   Based on those surveys in Table 6 with data for both sexes and age range at least 21-64 (see *Cigarette consumption per person*, Methods p. 11).

Source: See *Notes on sources of survey data*, p. 54   *   = refer to *Notes on sources of survey data*, p. 54
Product: MC = manufactured cigarettes   All ages: relates to ages reported; as given in original source
           TC = total cigarettes (including hand-rolled)   % Total sales: Adjustment factor used, estimated % of total sales
           UC = cigarettes (type unspecified)   of M = manufactured or T = total cigarette consumption
           A = all products   implied by survey, sexes combined
           U = unspecified   -- = adjusted by original author

Table 8

Table 8   Estimated[1] prevalence of smoking and estimated[1] number of cigarettes per person per day (unadjusted and sales-adjusted): summary of Tables 4, 6 and 7. Males and females aged 15 years and over

Yugoslavia and non-EU successor countries

Year	Source[2]	Product[3]	Prevalence[4] Manufactured cigarettes		Total cigarettes[5]		All products[6]		Number of cigarettes Unadjusted[7] Number/ person/day		Total sales %	Sales-adjusted[8] Manufactured cigarettes number/ person/day		Total cigarettes[9] number/ person/day	
			M	F	M	F	M	F	M	F		M	F	M	F
1969	9	*UC+A*			50	15	53	15				(10.3	2.4)		
1984	30	MC	56												
1985	27	*U*					52	31				(11.8	5.6)		
1995/10	36	*U*					45	30				(9.9	5.3)		
2003/11	48	U					44	24							
	48	**U**					52	33							
2009	53	MC+TC	44	24	46	27									
	53	**MC+TC+A**	46	28	46	27	47	28							

Croatia

Year	Source[2]	Product[3]	Prevalence[4] Manufactured cigarettes		Total cigarettes[5]		All products[6]		Number of cigarettes Unadjusted[7] Number/ person/day		Total sales %	Sales-adjusted[8] Manufactured cigarettes number/ person/day		Total cigarettes[9] number/ person/day	
			M	F	M	F	M	F	M	F		M	F	M	F
1970/12	10	*U*					57	10				(11.3	1.6)		
1972	12	UC			53	11			10.2	1.6	89	11.4	1.8		
2003	49	UC+U					30	18	6.5	2.6	82	7.8	3.1		
	49	**U**					31	23							
2005	51	MC+TC+A	35	25	36	26	36	26	6.4	3.2	87	7.3	3.7		
	51	*MC+TC+A*	39	32	40	32	40	32							
2006	51	MC+TC+A	37	19	38	20	38	20	7.3	2.6	81	9.0	3.2		
	51	*MC+TC+A*	40	24	42	25	42	25							
2009	51	MC+TC	36	24	38	25			8.6	3.5	139	6.2	2.5		
	51	**MC+TC+A**	38	26	39	26	40	26							
2010	63	TC			31	21			6.8	3.1	99	6.9	3.1		
	63	**TC**			32	23									

Table 8   *(continued)*

Slovenia

Year	Source[2]	Product[3]	Prevalence[4] Manufactured cigarettes		Total cigarettes[5]		All products[6]		Number of cigarettes Unadjusted[7] Number/person/day		Total sales %	Sales-adjusted[8] Manufactured cigarettes number/person/day		Total cigarettes[9] number/person/day	
			M	F	M	F	M	F	M	F		M	F	M	F
1988/12	33	U					42	27				(11.8	6.2)		
1994/13	33	U					35	23				(8.3	4.4)		
1996	33	U					33	21				(8.4	4.1)		
2001	61	UC+U					46	24	9.4	3.5	105	9.0	3.3		
	61	**U**					54	34							
2002	52	*U*					35	25				(5.0	2.9)		
2003	50	UC+U					24	16	4.5	2.7	98	4.6	2.8		
	50	**U**					28	19							
2005/14	52	MC+TC+A	23	18	24	19	24	19	3.8	2.4	45	(8.4	5.3)	8.5	5.3
	52	*MC +TC +A*	28	24	28	24	29	24							
2006	52	MC+TC+A	20	16	21	16	21	16	3.4	2.0	39	(8.4	5.2)	8.7	5.1
	52	*MC +TC +A*	25	21	25	21	25	21							
2007	62	TC			22	16			4.3	2.1	48			9.1	4.5
2009	52	MC+TC	28	19	31	20			6.1	2.7	66	(8.6	4.7)	9.3	4.1
	52	**MC+TC+A**	31	21	32	20	32	21							
2012/15	52	MC+TC+A	27	21	28	21	28	21	4.8	2.6	60	(7.2	4.4)	8.0	4.3
	52	**MC+TC+A**	29	25	29	25	30	25							

1   Surveys covering an age range of at least 21-64 are included. Any gaps in the data for ages 15-20 and 65 years and over are filled in by assumed extensions to the age distribution, shown in the extended versions of Tables 4 and 6 in the Excel tables workbook. Method: see *Summary of adult smoking*, Methods p. 13. Exceptionally, calculation is based on the *All ages* value from Tables 4, 6 and 7 in those surveys for which some age-specific data are not available (age groups marked as * in Tables 4, 6 and 7).

2   See *Notes on sources of survey data*, p. 54.

3   Product: MC = manufactured cigarettes, TC = total cigarettes (including hand-rolled), UC = cigarettes (type unspecified), A = all products, U = unspecified. Frequency of smoking is indicated by: regular or daily smokers in normal type, **all smokers (including occasional) in bold**, *unspecified in italics.*

4   Estimated from data in Table 4 (see also extended version of Table 4 in the Excel tables workbook)

5   This column includes prevalence of smoking classified as UC = cigarettes (type unspecified).

6   This column includes prevalence of smoking classified as U = unspecified product.

7   Estimated from data in Table 6 (see also extended version of Table 6 in the Excel tables workbook)

8   From Table 7, except data in parentheses, which are derived from the prevalence of smoking from Table 4 as described in *Summary of adult smoking*, Methods p. 13. Apart for Croatia and Slovenia, for which the sales data were fully updated, no sales adjustment was conducted for the post-1995 survey data, and these columns are left blank for those years.

9   As no estimates of hand-rolled cigarettes are available until 2006 (Slovenia only), all sales-adjustment prior to that year, and for all years apart from for Slovenia, is to manufactured cigarettes.

10 Calculation of estimates in parentheses based on 1992 sales and 1990 population data for Yugoslavia.

11 Calculations based on 2010 population for Bosnia and Herzegovina.

12 Calculation of estimates in parentheses based on sales and population data for Yugoslavia.

13 Calculation of estimates in parentheses based on sales and population data for Slovenia. Estimates of 10.1 and 5.3 in the 2nd edition were based on sales and population data for Yugoslavia.

14 Calculations based on 2006 sales.

15 Calculations based on 2010 population.

Yugoslavia and non-EU successor countries

Percentage of Smokers
Manufactured Cigarettes

Percentage of Smokers
Total Cigarettes
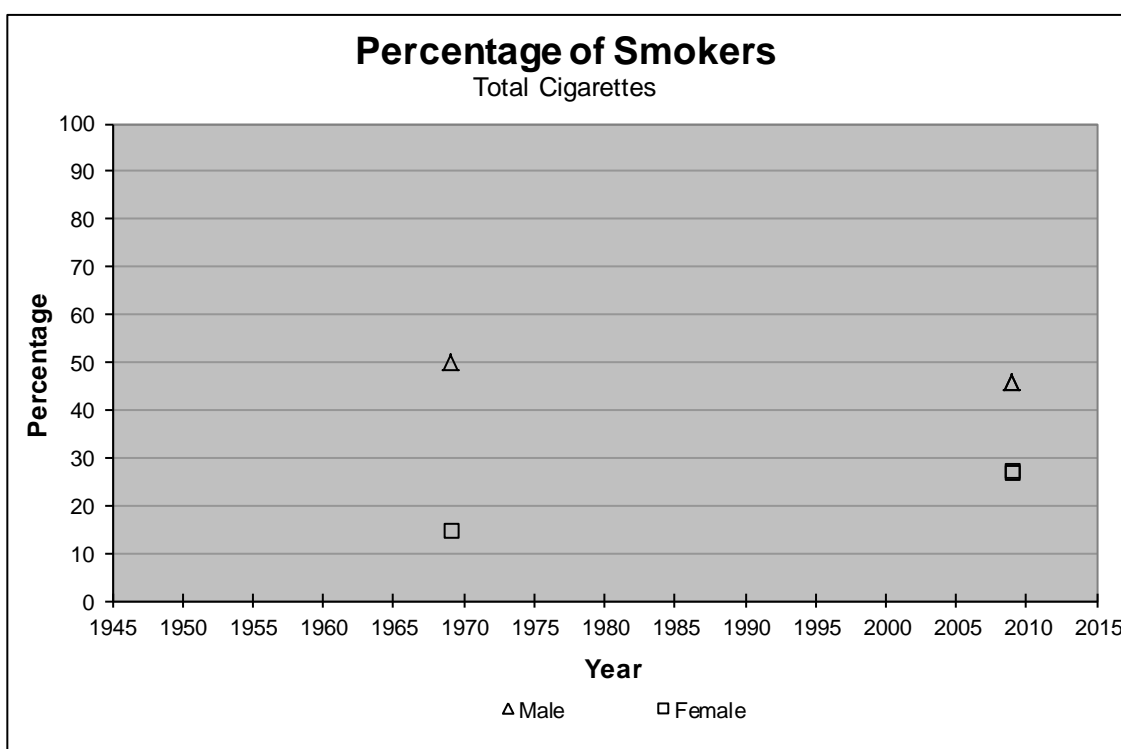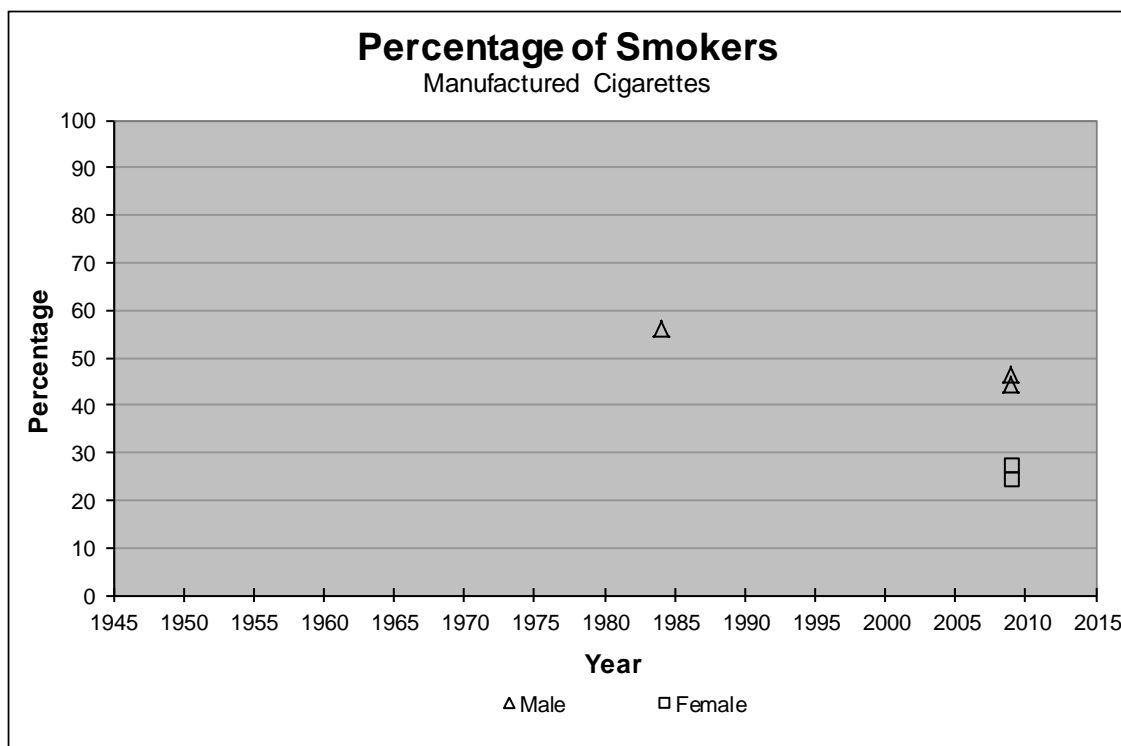
Figure 3   *(continued)*

Yugoslavia and non-EU successor countries *(continued)*
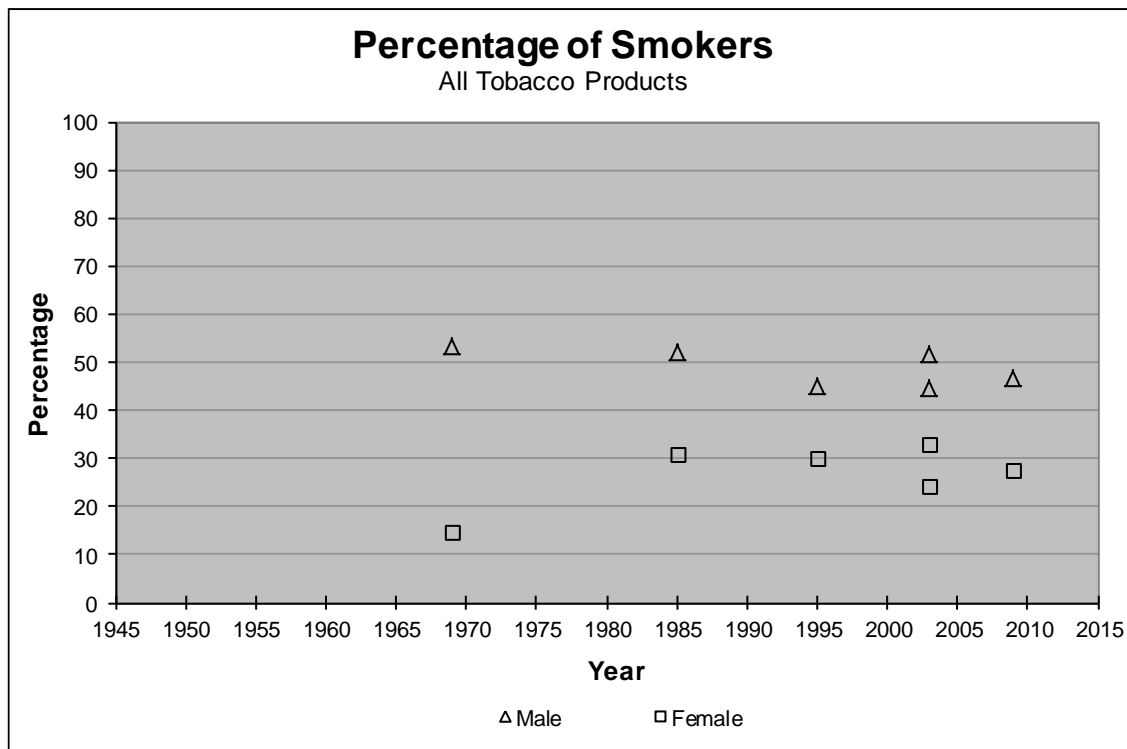
Croatia
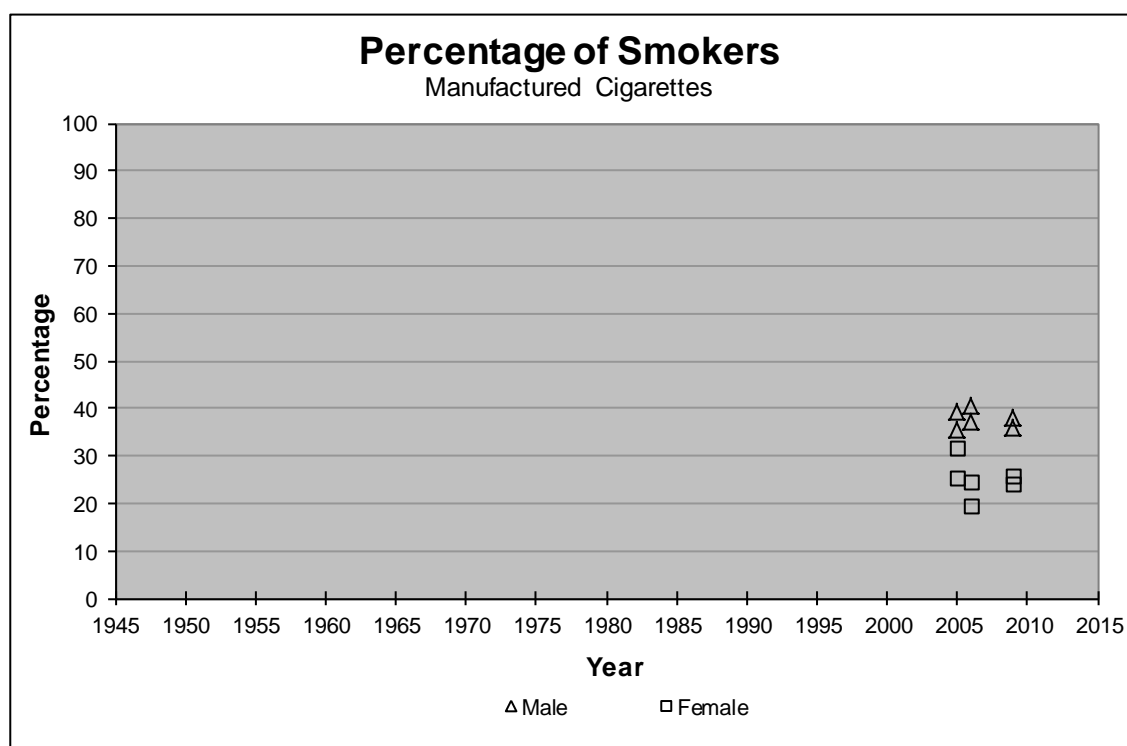
Figure 3 *(continued/2)*

Croatia *(continued)*

Percentage of Smokers
Total Cigarettes

Percentage of Smokers
All Tobacco Products

Figure 3 *(continued/3)*

Slovenia

Percentage of Smokers
Manufactured Cigarettes

Percentage of Smokers
Total Cigarettes

Figure 3   *(continued/4)*

Slovenia *(continued)*

Percentage of Smokers
All Tobacco Products
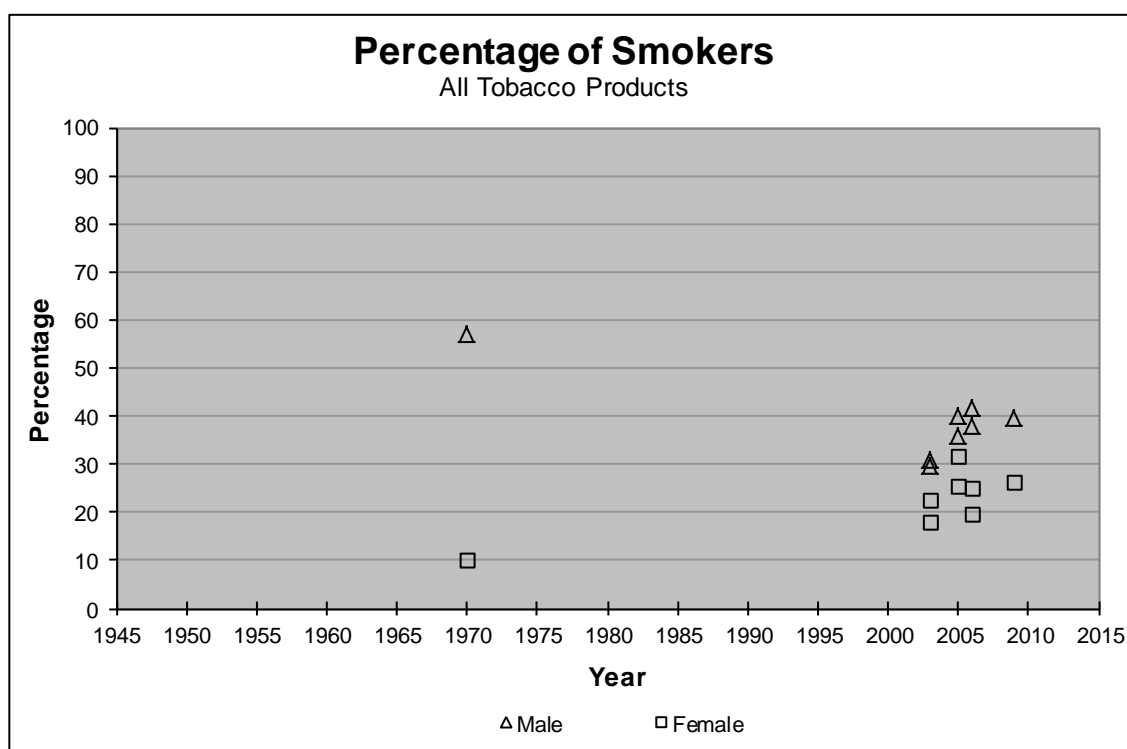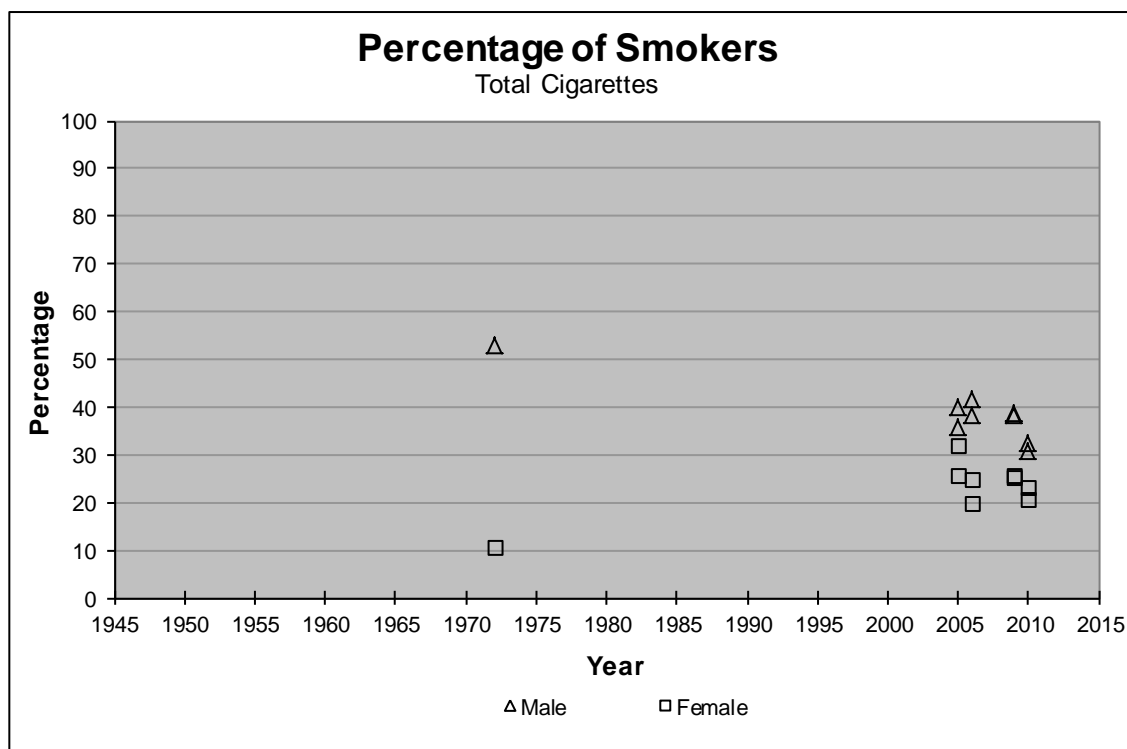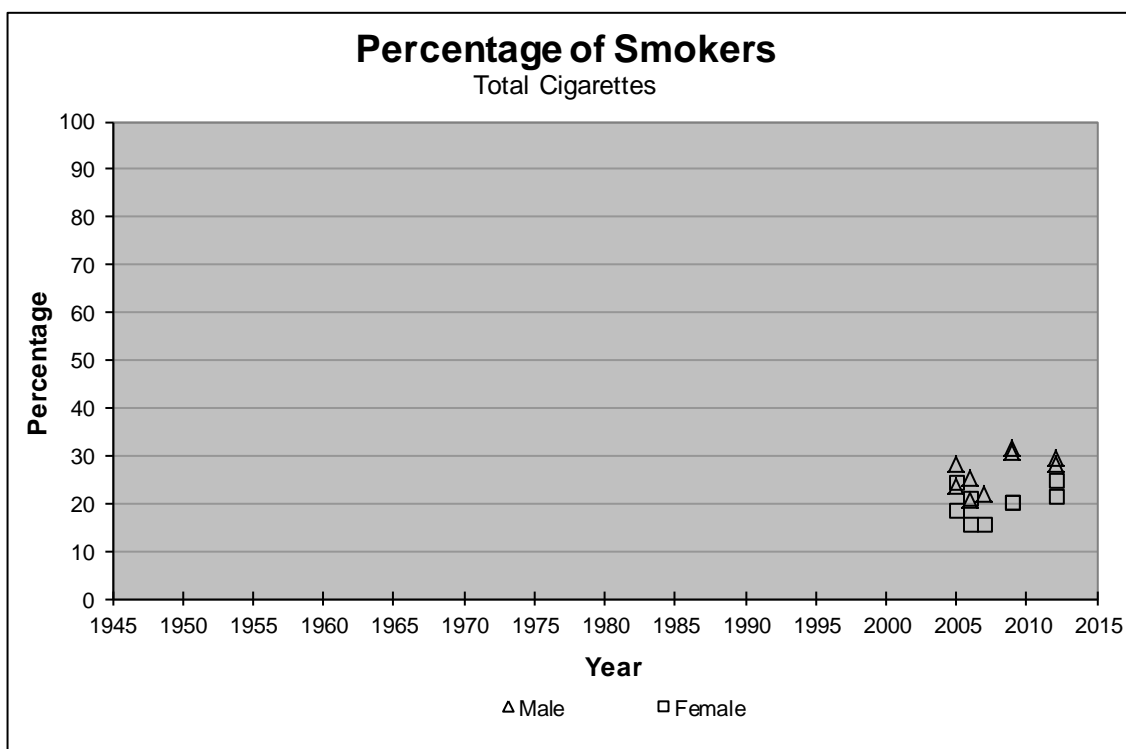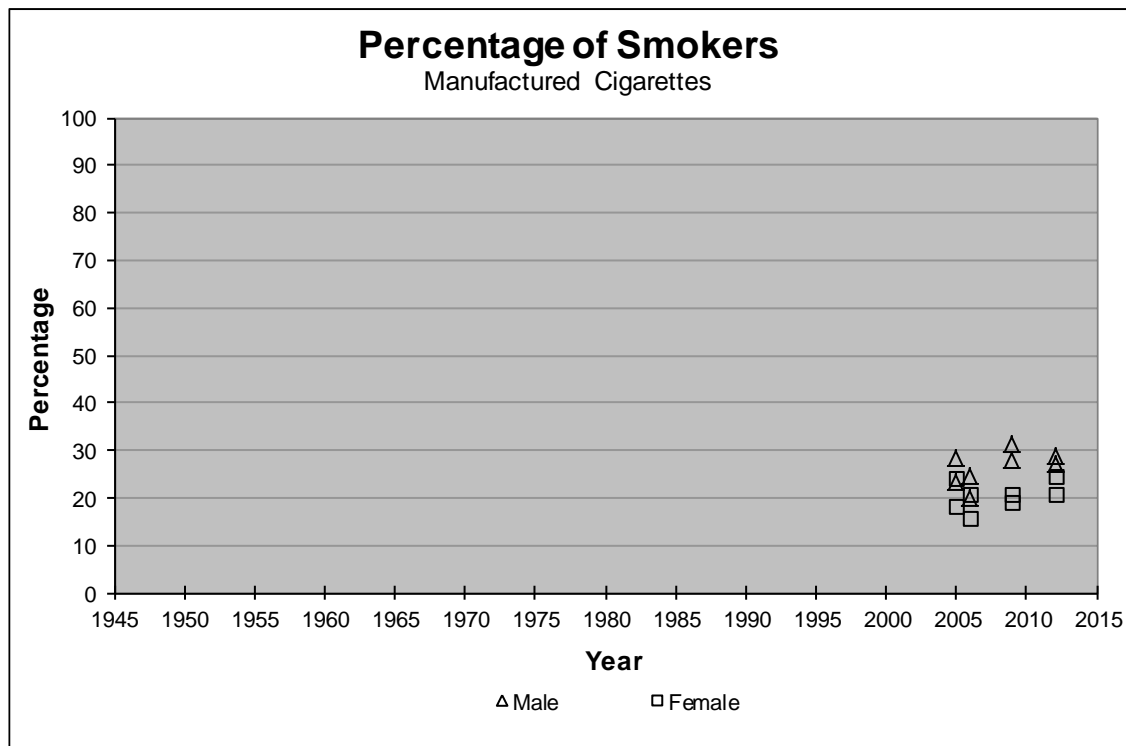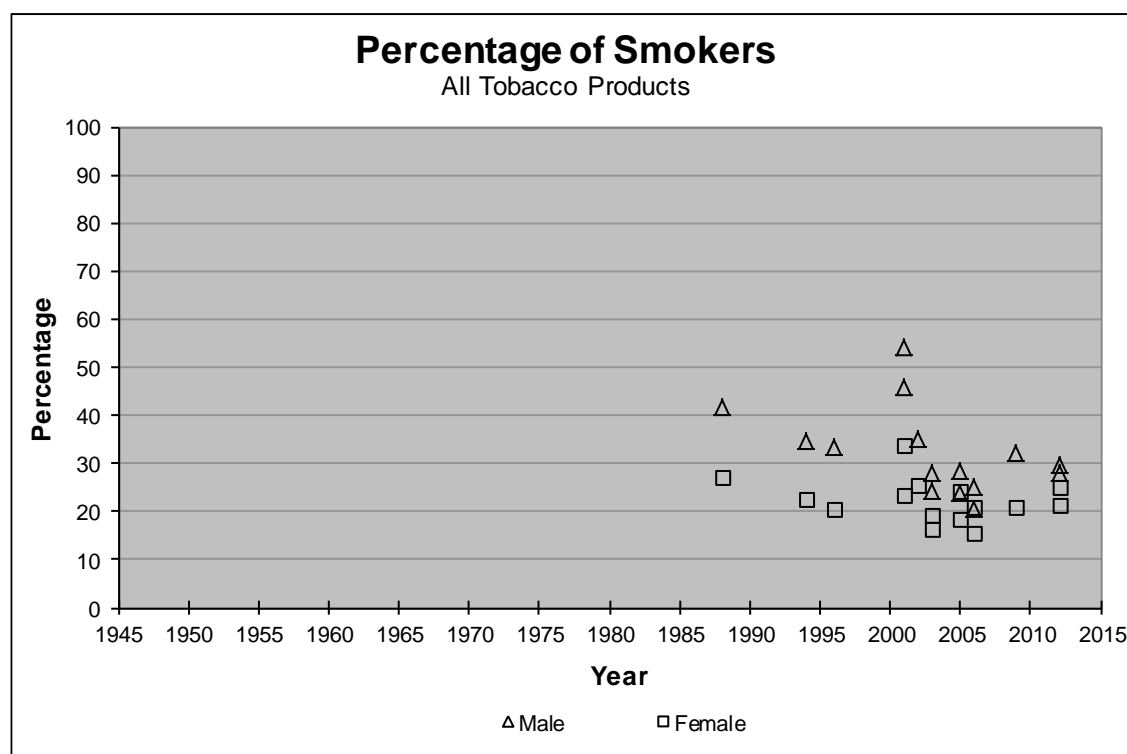
Source: Table 8.
See also customisable version of Figure 3 in the Excel workbook.

Yugoslavia and non-EU successor countries
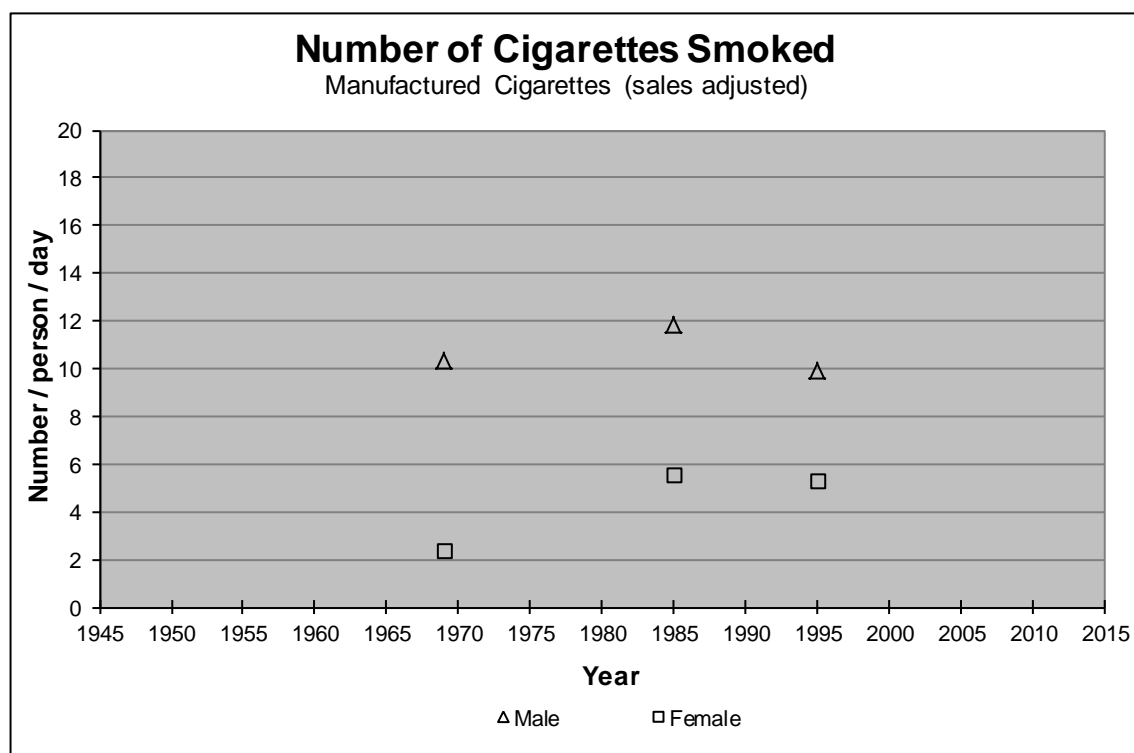
Croatia
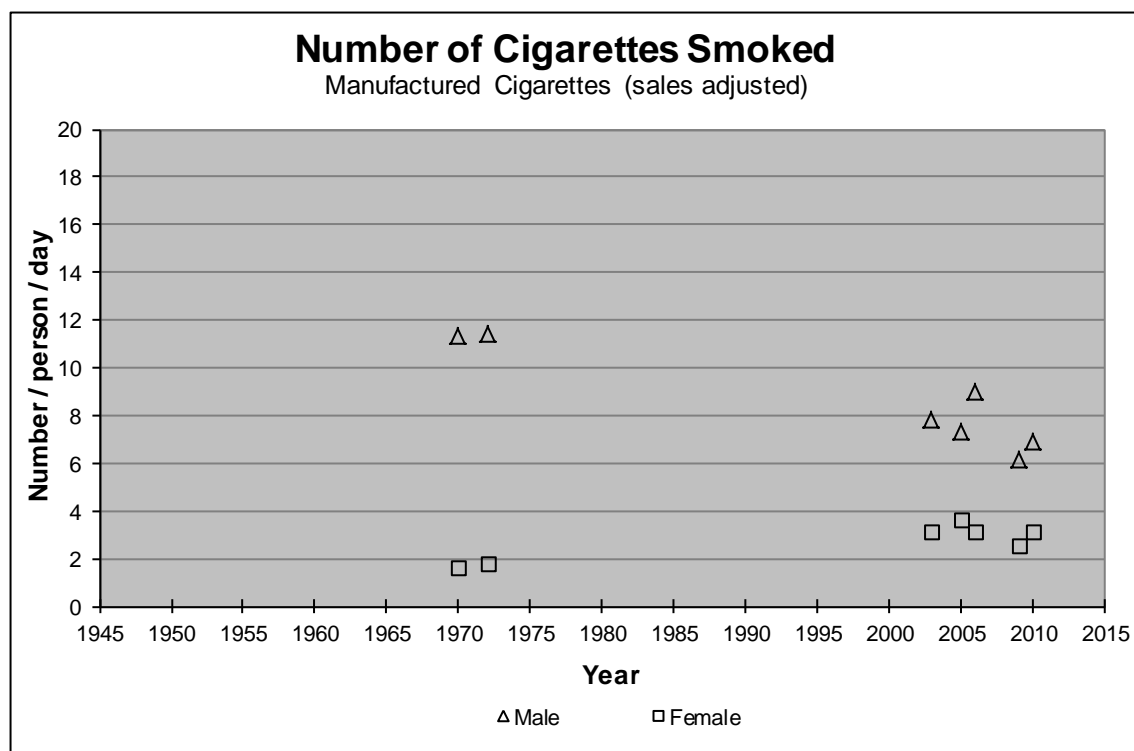
Figure 4 *(continued)*

Slovenia

Number of Cigarettes Smoked — Manufactured Cigarettes (sales adjusted)

Number of Cigarettes Smoked — Total Cigarettes (sales adjusted)
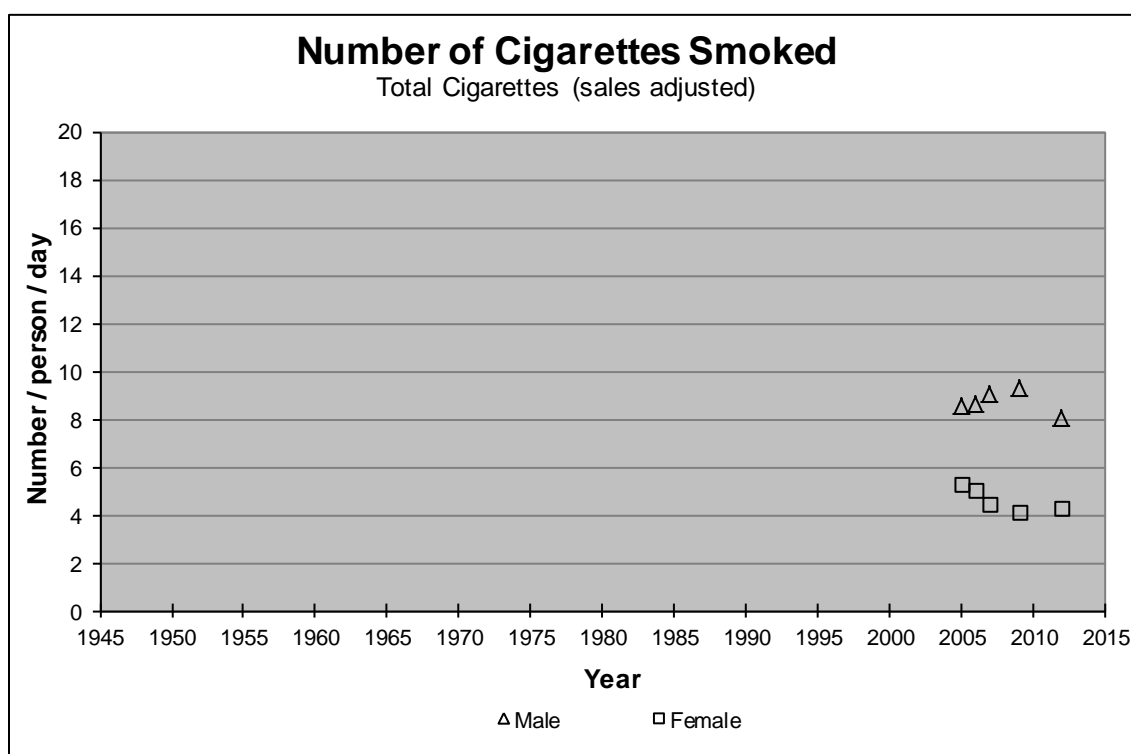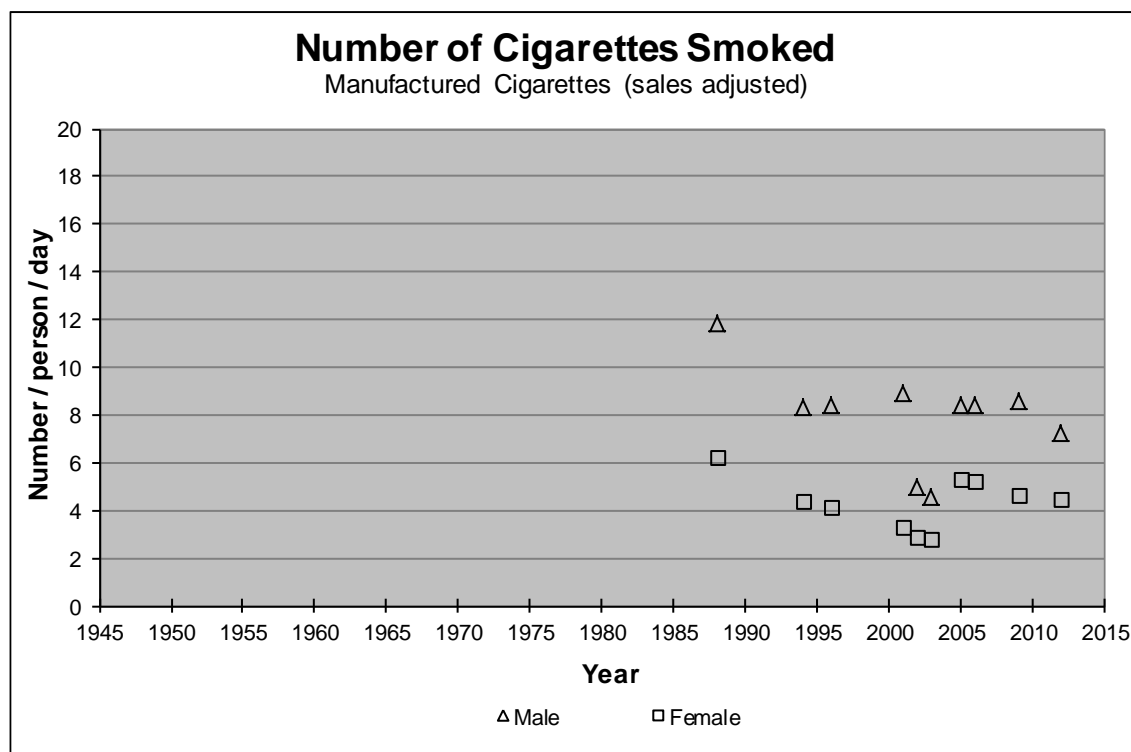
Source: Table 8.

Notes

Notes on sources of sales data

The data presented in the tables and figures were obtained from several sources, details of which are given below, together with estimations and related assumptions. Full citations of the sources are given on p. 61 under *References*.

This chapter covers Yugoslavia and its successor countries. The sales data have been fully updated only for the countries which are currently members of the EU, Croatia and Slovenia.

Consumption data 1922-1935

Hutson (1937)
See Table 1.1.

Data were originally given to the nearest 1 000 pounds. They have been converted to tonnes (1 000 lbs = 0.45359 tonnes) and given to the nearest tonne. For conversion from weights to numbers we assumed an average cigarette weight of 1 g.

Hutson noted that use of chewing tobacco and snuff was restricted to miners in Slovenia. The tobacco industry was controlled by a monopoly, and all tobacco grown had to be turned over to the Monopoly with no allowance for home consumption by the grower.

Consumption data for 1960-2004

US Department of Agriculture (USDA) (2005) (except see the following text sections for sources for Croatia from 2004, and for additional sources for Slovenia from 1996.)
See Table 2.1 for Yugoslavia (1960-1992), and see Tables 1.2, 1.3, 2.2, 2.3 and 2.4 for individual successor countries. (Data for Yugoslavia in those years and for individual non-EU successor countries are not included in Table 1 to avoid repetition, as only cigarette data by number are available, as shown in Tables 2.1 and 2.4.)

The data refer to domestic consumption. Data for cigarettes were given by number.

Alternative estimates of consumption of cigarettes by weight in Yugoslavia by Krstič (1991) are shown here. They are based on production plus imports minus exports. Comparison with the USDA series suggests an average cigarette weight of about 1 g.

	Cigarette consumption (tonnes)
1980	49 304
1981	45 332
1982	45 354
1983	57 683
1984	54 968
1985	55 154
1986	53 294
1987	55 221
1988	58 779
1989	56 133
1990	57 377

In the 1990s, the situation was complicated by UN trade embargos, continuing conflict between republics, inflation and cross-border smuggling. For Croatia, alternative data (not shown) are also available from World Health Organization (2013) for the period 1992-2000; these are generally very close to those given by USDA, but are substantially higher for 1993 and 1994 (by 15% and 9% respectively).

Macedonia experienced an additional trade embargo by Greece which prevented Macedonia using its nearest port, Salonika, for exports. Before the breakup, the republic's production constituted 40-50% of total Yugoslavian production and more than 70% of its production was sold in other parts of Yugoslavia. According to Beljo (1995), Macedonian cigarette consumption in 1994 was in the range 3 500-4 000 million pieces, though an exact figure could not be calculated because of extensive smuggling and duty-free sales.

Euromonitor International (2016) noted that there was little tradition of cigar smoking in any of the successor countries, with no local production, and few imports before 1991.

Due to lack of any data on sales of other products, we have not included estimates of the consumption of all tobacco products for this period in Table 2.1.

Sales data for Croatia for 2004 onwards

Croatian Bureau of Statistics (CBS) (2005-2010, 2010-2014, 2015)
See Tables 1.2 and 2.2

Data for cigarettes were given as numbers, and refer to "apparent domestic consumption", calculated (by CBS) as production sold + imports – exports. A figure of 12 141 was given for 2003 but is not shown in Table 1.3 as it appears to be on a non-comparable basis (using total production rather than production sold, CBS (2004)). Production data for some years were presented as both numbers and tonnes, and comparison indicates a weight per cigarette very close to 1 g.

Data are also available from USDA for 2004 and 2005 (continuing the consumption series shown for earlier years), and are slightly higher (2% and 6% respectively) than those shown.

Alternative data are also available for recent years from KPMG (2014, 2015), shown in the following text-table. The KPMG data refer to legal sales (i.e. including outflows such as cross-border purchases), and to estimated total consumption (i.e. adjusting for cross-border purchases, and including estimated counterfeit and contraband). Comparison is with the official statistics shown in Table 1.2.

Year	Legal sales (millions)	Total consumption (millions)	% difference from official statistics
2012	7 220	7 760	16.5
2013	6 710	6 830	10.7
2014	6 070	6 440	

Data for smoking tobacco was derived (by us), also on a basis of production sold plus imports minus exports. However there were some difficulties in interpreting the categories used in different publications, and figures should be regarded with caution (CBS (2012-2015, 2015)). Euromonitor International (2015b) noted that smoking tobacco did not have a tradition in Croatia, but following differential tax changes which encouraged users to switch to RYO (roll-your-own), sales doubled in 2010 but returned to the previous level in subsequent years. From 2012, imported waterpipe tobacco was listed separately by CBS (2015); at 68 and 43 tonnes in 2012 and 2013 respectively, it represented 42% and 23% of apparent consumption of loose tobacco, but fell below 1 tonne in 2014 (other loose tobacco data not available that year).

Data for cigars and for chewing tobacco/snuff are of imports minus exports (which were negligible), on the assumption that there was no production in Croatia. The data for cigars were presented both as numbers and by weight, and comparison implies a weight around 2 to 2.5 g per cigar.

We assumed a conversion factor of 1 g per cigarette to estimate weight of cigarettes and to calculate total tobacco consumption for those years where data on other products are also available (2010-2013). This suggests that the pattern has changed little since 2004, when it was reported that cigarettes represented 95% of consumption (USDA (2004)).

Sales and consumption data for Slovenia for 1993 onwards

Cigarettes: As there are considerable discrepancies between data from different sources, Table 1.3 shows alternatives from several sources, detailed below. The consumption data from USDA and from KPMG (marked †) are also shown in Table 2.3 and Figure 2.3, with the Statistical Office legal sales data (marked ‡) also shown as alternative in Figure 2.3. Note that in Table 2.3 no estimates are presented for 2005. The consumption data from KPMG are used in the calculation of total tobacco consumption.

Legal Sales:

1997-2014: KPMG (2012, 2015), legal domestic sales, given to the nearest 100 000 until 2005 and to the nearest 10 000 thereafter.

‡ 2005-2014: Statistical Office of the Republic of Slovenia (SURS) (2015), apparent sales, calculated (by us) as imports minus exports, on the basis that cigarette production in Slovenia ceased in 2004 (Tobačn Ljubljana (2016), SURS (2016b)).

Consumption:

† 1993-2004: USDA (2005), domestic consumption.

1996-2000: World Health Organization (2013), consumption.

† 2006-2014: KPMG (2014, 2015), estimated total consumption, i.e. adjusting for cross-border purchases, and including estimated counterfeit and contraband.

Cigars:

2004-2011 by number: Bundesverband der Zigarrenindustrie (2011, 2013)

2005-2014 by weight: SURS (2015), calculated (by us) as imports minus exports. Comparison of the two series when both are available (2005-2011) suggests an average weight per cigar of 2.8 g, and this figure is used as a conversion factor for 2004 (from number to weight) and 2012-2014 (from weight to number).

Other products: SURS (2015), calculated (by us) as imports minus exports.

KPMG (2012) listed Slovenia among a group of countries where products other than cigarettes had accounted for less than 5% of total legal tobacco sales in 2008, and where no robust source of data was available for the years since. Euromonitor International (2015a) noted that there is no tradition of cigar or cigarillo smoking in Slovenia. Imported brands have been available since 1990, and cigars are regarded as a "special event" rather than a daily use product. Euromonitor International (2015c) described pipe tobacco as a "niche" product used mainly by older men, but that price differentials have led to switching from manufactured to RYO cigarettes during the adverse economic situation. From 2012, imported waterpipe tobacco was listed separately by SURS (2015); at 62, 75 and 1 tonne in 2012, 2013 and 2014 respectively, it represented 33%, 22% and 0.5% of the estimated sales of loose tobacco. Data on household expenditure confirm these patterns, with <0.5% of tobacco expenditure spent on cigars (2000-2012), and <1% on other tobacco products, rising to 1.7% in 2012 (data not available for 2011) (SURS (2016a)).

We used the standard assumption of 1 g of tobacco per manufactured cigarettes to calculate total tobacco consumption for 2006 onwards.

Estimates of smuggling and cross-border sales

For the Serbia-Montenegro federation it was estimated that almost 100% of imported cigarettes were smuggled, amounting to 13 000 million cigarettes in 1995 and 13 500 million in 1996. UN sanctions, which included restrictions on cigarette imports, were in place from June 1992 until November 1995 (USDA Economic Research Service (1996)). In 1996, smuggled cigarettes were estimated to account for around 40% of the market in Bosnia, and 43% in Macedonia (USDA (1997a, 1997b)).

The table below summarizes estimates of the market share (%) of non-legal sales of cigarettes as a proportion of total cigarette sales for Croatia and Slovenia. The sources and basis of the percentages are described below the table.

Source:	Croatia					Slovenia			
	1	2	3	4	5	1	3	4	5
2000-04	25-49.9					<10			
2001	25								
2003						2-3			
2004		15							
2005			24.8						
2006								8.8	7.4
2007								6.2	5.1
2008								18.8	12.8
2009								8.6	6.6
2010				9.9			7.6	7.0	5.4
2011			17.6	13.2			8.1	7.8	6.3
2012				9.2				8.5	6.7
2013				5.2	3.7			9.7	7.1
2014				10	8.1			9	7.7

Sources:
1 ERC estimates.
   2000-2004: ERC (2004) quoted by Mackay *et al* (2006); Slovenia was shown as in a category of below10%, and Croatia in a category of 25-49.9% but no detail given.
   2001 (Croatia): ERC Group PLC (2001) quoted by Bozicevic *et al* (2004).
   2003 (Slovenia): ERC (2007) quoted by Shafey *et al* (2009).
   All years: smuggled cigarettes as % of total market.
   Bozicevic *et al* (2004) also reported data from the Croatian Chamber of Economy and the UN, estimating that in 2000, cigarette exports to Croatia from other countries totalled 132.4 million pieces, while official imports were only 34 million pieces. They also quoted Nacional (various years) that the majority of cigarettes exported from Croatia returned through "soft borders" and appeared on the black market.
2 USDA (2004). Black market sales as % of consumption.
3 Euromonitor estimates.
   2005 (Croatia): Euromonitor International (2007) quoted by Shafey *et al* (2009). Smuggled cigarettes as % of legal sales.
   2010 (Slovenia): Euromonitor International (2013) quoted by Gilmore *et al* (2014). Illicit cigarette trade volume as % total volume.
   2011: Euromonitor International (2011) quoted by Eriksen *et al* (2012). Illegal cigarettes as % of total market.
   Gilmore *et al* (2014) noted that concerns have been raised by Skafida *et al* (2014) and Blecher *et al* (2015) about the quality of Euromonitor data on illicit trade.
4 KPMG (2014, 2015). Non-domestic cigarettes, based on Empty Pack Surveys (EPS) for PMI by Nielsen and MSIntelligence. The surveys collected 3 000 packs per year from 8 cities in each country, with results weighted by population. In Slovenia, they were conducted in quarter 3 of each year until 2008, and thereafter (and in Croatia) in quarter 4.
5 KPMG (2014, 2015). The share of total cigarette consumption that is counterfeit or contraband, based on KPMG's EU Flow Model, manufacturers' data, Synovate/Ipsos non-domestic (legal) research, independent agency EPS (see source 4 above), and national visitor number statistics.

KPMG (2014) estimated that between 0.5-1.5% of the cigarettes consumed in Slovenia in 2007-2013 were "illicit whites" (defined as brands manufactured legally, usually outside the EU, and smuggled into another market where they have limited or no legal distribution and are sold without payment of tax). In Croatia, an estimate of 2.5% was available for 2013 only.

Some Eurobarometer surveys enquired about contact with smuggled cigarettes and cross-border purchasing. In 2008, 2.3% of Slovenian respondents had, in the previous 6 months, often seen cigarettes being sold that they thought were smuggled, with a further 5.8% seeing them occasionally (Gallup Organisation Hungary (2009)). In 2012, 11% of Slovenians reported having purchased tobacco products abroad in the previous year (European Commission (2012)).

A multinational survey was reported by PPACTE (Gallus *et al* (2012), Joossens *et al* (2014)). The Croatian sample was 948, of whom 262 were current smokers, who reported the sources of cigarettes bought in the previous 30 days (as percentages of the total number bought), summarized as follows:

Source	Proportion of cigarettes bought (%)	
	Smokers aged 15-24	All smokers
Legal shops	87.9	86.9
Vending machines	0.0	0.1
Internet	0.0	0.0
Other countries/duty free	3.9	3.3
Smuggled (markets, door-to-door sellers etc.)	3.9	6.0
Offered by peers	4.2	3.8

7.4% of current smokers reported having bought smuggled cigarettes (more than 1% of their total purchasing) in the previous 30 days. Of the cigarette packs shown (when the subject was asked for their most recently bought pack), 88.4% had a local tax stamp. Packs identified as illicit (defined as purchased from an illicit source or at an extremely low price, or lacking the appropriate health warning or tax stamp) comprised 7.6% of manufactured cigarette packs and 54.9% of hand-rolled packs (although the latter figure is based on only 20 packs).

Estimates from KPMG (2014) show that legal non-domestic sales, i.e. cross-border and duty-free sales, made up around 1.5% of total sales in Croatia in 2013 and 1.0-2.8% of total sales in Slovenia during 2006-2013.

Estimates of numbers of hand-rolled cigarettes

Little information on smoking of hand-rolled cigarettes is available for Croatia, and given the limited data available for loose tobacco (including waterpipes, see *Sales data for Croatia for 2004 onwards*, p. 50), we have not attempted to estimate numbers of hand-rolled cigarettes smoked.

For Slovenia, we have assumed that all smoking tobacco was used in hand-rolled cigarettes, and used the standard conversion rate of 1 g per cigarette to estimated numbers of cigarettes smoked. This may overestimate if a significant proportion of loose tobacco is in fact used in water pipes (see *Sales and consumption data for Slovenia for 1993 onwards*, p. 51).

Plain/Filter cigarette sales

1966-1972: Maxwell (Successive years)
1984: Boddewyn (1986)
USDA reported that the percentage of production which was of filter cigarettes for Yugoslavia rose from 97% to 99% over the period 1980-1992; it was 100% thereafter in Slovenia and Bosnia-Herzegovina, and at least 97% for the other successor countries (reporting ceased around 2004). (USDA (2005))

Menthol cigarette sales

In 2010, market share for menthol cigarettes was 0.4% in Croatia and 1% in Slovenia (Oxford Economics (2012)). In 2012, Slovenian menthol cigarette consumption remained at 1% of total cigarette consumption (KPMG (2013)).

King-size and slim cigarette sales

Zatonski (1991) stated that most cigarettes smoked in Yugoslavia (around 1990) were king-size.

In 2012, slim cigarettes made up 9% of total cigarette consumption in Slovenia. KPMG (2013).

Tar and nicotine machine yields of cigarettes

No data on sales-weighted machine yields are available. In 2005, in Slovenia, the average tar yield was reported to be 6.5 mg, based on an analysis of 74 brands according to ISO standards (Zatoński and Przewoïniak (2010) quoting personal communication from T. Albrecht).

In 1996-1997, ultra-light cigarettes (1-3 mg tar) held <1% of market share in Slovenia (Philip Morris International (2004)). This rose rapidly and for the years 2001-2003 market share was over 10%. (See also Table xiv in *Comparisons between countries* chapter.) In Croatia, "light" cigarettes were reported in 2004 to hold about half of the market (USDA (2004))

In 1990, the limits on yields in Yugoslavia were 30 mg of tar and 1.7 mg of nicotine per cigarette (Zatonski (1991)). Around 1995 Croatia had a limit of 15 mg tar per cigarette and Slovenia was drafting a law for a limit of 15 mg of tar per cigarette (Harkin *et al* (1997)). Since joining the EU

in 2004 and 2013 respectively, Slovenia and Croatia have implemented the Tobacco Product Regulation Directive 2001/37/EC, limiting the yield per cigarette of tar to 10 mg, of nicotine to 1 mg and of CO to 10 mg.

Notes on sources of survey data

Each source of survey data—either an individual survey or a series of surveys repeated over a number of years—is cited by a source number. This number is shown in the tables and corresponds to the source numbers given below, where details of the source publication and of the survey methodology are given. Full citations of the sources are given on p. 61 under *References*.

As mentioned in the introduction, the survey data in this chapter are largely reproduced from the 2nd (print) edition, which covered the years up to 1995, subject to a few amendments for consistency with the Web edition, most notably using more recently published material for source 29 (MONICA). For the subsequent years, only certain multinational surveys have been added (extending sources 37-38, and adding sources 39-63). No searches for country-specific sources or surveys were undertaken. In this edition, Tables 4-8 are each presented with separate subsections (i) national surveys in the former Yugoslavia, surveys of unknown location and regional surveys other than those in Croatia and Slovenia; (ii) surveys conducted in Croatia; and (iii) surveys conducted in Slovenia.

Source number

1-5 Keys *et al* (1966), Djordjević *et al* (1970)

a. Baseline of Seven Countries Study on cardiovascular disease. Interview including smoking questions before medical examinations.

	Location	Description	Sample size	Response rate (%)
1	Dalmatia, Croatia	Coastal farming villages	727	98
2	Dalj, Slavonia, Croatia	Large farming village	749	92
3	Velika Krsna, central Serbia	Farming village	522	97
4	Zrenjanin, central Serbia	Employees at a food-processing plant in a market town	516	'substantially all'
5	Belgrade, Serbia	All men of the faculty of the University of Belgrade	538	80

b. Occupational groups have been included in this report because there are few other studies at this time, and for comparability with groups in other countries with same methodology.

c. Pipe and cigar consumption is stated to be very uncommon in Serbia, especially away from Belgrade.

d. Consumption category estimation based on 1-9, 10-19, 20 or more cigarettes/smoker/day, except *All ages* cigarettes per person data for the three Serbian cohorts which were given directly by Nedeljkovic *et al* (1993). Values estimated by our method would have been slightly lower.

e. There is a discrepancy between the two sources on the sample size for Velika Krsna.

f. In the previous edition of this report, the source numbers as described in the notes did not correspond correctly to the data tables.

6-7 Kozarević *et al* (1976)

a. Baseline of Yugoslavia Cardiovascular Disease Study, 1964-1965. All men living in two communities and born 1903-1928 were invited for examination, and subjects with definite or possible myocardial infarction were excluded. The communities were Tuzla, a town and surrounding villages in an industrial and mining area in Bosnia, and Remetinic, a suburb of the Croatian capital Zagreb.

		Initial response rate (%)	Eventual sample size
6	Tuzla	94	6 416
7	Remetinic	92	4 618

b. The mean number of cigarettes per day is stated to be 14.9 (both areas combined) but it is unclear whether this is per smoker or per person.

8 **Prebeg *et al* (1993)**

a. Surveys conducted in schools in Zagreb, Croatia, by the Andrija Šrampar School of Public Health.

	Sample size		
	Primary	**Secondary**	
		Boys	**Girls**
1966	–	476	562
1973	2 112	1 491	2 752
1984	–	1 642	1 800
1989	–	1 463	1 710
1991	2 103	1 366	1 386

Sample sizes shown for Primary schools in 1973 and 1991 include age 11.

b. Approximate ages corresponding to school grades. Results shown in *All ages* column for 1973 and 1991 are for Secondary schools only (age 15-18).

c. Smokers marked as frequency *: smoked daily.

d. Insufficient detail was presented to calculate cigarettes per smoker: the percentage of smokers smoking more than 10 cigarettes per day was 30-50% among boys, compared with 20% among girls in 1966 and 30% in other years.

9 **Smajkić *et al* (1972)**

a. Study in 5 districts of Bosnia and Hercegovina. Sample size 6 222.

b. Corrected for apparent misprints in Table II of the source paper.

c. Consumption category estimation based on 1-4, 5-15 (assume 5-14), and 15-24 grams/smoker/day, assuming that there were no smokers of 25+ grams. It is unclear whether ex-smokers are included.

d. Assumed extensions to age distribution for percentage smokers are shown in the extended version of Table 4 in the Excel tables workbook.

10 **World Health Organization (1997)**

a. Nationwide survey in Croatia. No original source. Age group not stated.

11 **Mimica *et al* (1978)**

a. Questionnaire study in a sample population from six communities in Socialist Republic of Croatia (Zabreb-Centar, Zagreb-Črnomerec, Virovitica, Split, Omiš and Vis). Part of a study of respiratory and cardiovascular diseases. Sample size (males) 1 575, (females) 1 690.

b. Consumption category estimation based on 1-10, 11-20, 21-30, >30 cigarettes/smoker/day.

12 **Kulčar *et al* (1974)**

a. Estimates based on an epidemiological study on psychosis in 1969-1972 and a representative sample of the population of Croatia. Sample size 23 754.

b. Consumption category estimation based on two categories, 1-10 and 11+ cigarettes/smoker/day, and resulting figures should be regarded with caution.

c. Assumed extensions to age distribution for percentage smokers and for cigarettes/person/day are shown in the extended versions of Tables 4 and 6 respectively in the Excel tables workbook.

13 **Jakovljevic (1977)**

a. Quoting postgraduate study by A. Markovic. Year not stated.

b. Study in 7 general and vocational secondary schools in Belgrade. Sample size 1 896.

14-26 **Prebeg *et al* (1993)**

a. Series of single surveys throughout Croatia. Organized by the Andrija Šrampar School of Public Health and conducted by school physicians as an introductory part of the anti-smoking program. There were some differences between the questionnaires used, but definitions of smoking were identical.

	Year	Location	Sample size	
			Males	**Females**
14	1975	Krapina	298	155
15	1979	Županja	657	684
16	1984	Pula	404	467
17	1984	Rijeka	291	410
18	1984	Duga Resa	115	305
19	1985	Dubrovnik	167	160
20	1986	Zadar	620	1 033

/continued

	Year	Location	Sample size	
			Males	**Females**
21	1986	Varaždin	363	278
22	1986	Požega	194	390
23	1986	Vinkovci	458	545
24	1986	Osijek	486	461
25	1989	Poreč	265	498
26	1991	Čakovec	387	425

   b.   Approximate ages corresponding to school grades.

   c.   Smokers marked as frequency *: smoked daily.

27   World Health Organization (1997)

   a.   National surveys (relating to former Yugoslavia), no further details. Age group not stated for 1985.

28   Geizerova and Masironi (1988)

   a.   No original source.

29   Tolonen *et al* (2000), Kuulasmaa *et al* (1998), Wolf *et al* (1998), Molarius *et al* (1999)

   a.   Surveys using interviewer-administered questionnaires in one region carried out in three phases, forming part of WHO MONICA Project:

Region	Phase	Participation rate (%)		Sample used*		Date
		Males	**Females**	**Males**	**Females**	
Novi Sad	1	82	82	798	777	Sep 1984-Dec 1984
	2	84	88	778	791	Sep 1988-Apr 1989
	3	90	96	751	803	Sep 1994-Feb 1995

   * 'Sample used' includes age 25-64, all other figures are for age 35-64 only

   b.   The *All ages* column (Tables 4-7) relates only to age 35-64 and is standardized to the world population.

   c.   Regular cigarette smokers: smoked cigarettes daily. All smokers: smoked cigarettes daily or occasionally, or smoked 1 g pipe tobacco or 1 cigar per week.

   d.   For phase 1, there are minor discrepancies between the data shown in Table 4 and equivalent data taken from World Health Organization (1989) used in earlier editions of this report.

30   Mackay (1994)

   a.   Yugoslavia. No original source. Age group not stated : 15+ assumed.

   b.   Female prevalence is also reported as 10-36%.

31   Grubišić-Greblo *et al* (1989)

   a.   Study of glue sniffing in three secondary schools in Rijeka, Croatia. Sample size (males) 1 119, (females) 1 135.

32   Burany *et al* (1992a, 1992b)

   a.   Multiphase oncologic population screening in Mali Idos, Croatia, a rural area. Sample size 5 555, response rate 91%.

   b.   Based on recall of age of starting to smoke, smoking among women started in the 1960s.

   c.   Consumption category estimation based on two categories, 1-20 and 21+ cigarettes/smoker/day, and resulting figures should be regarded with caution.

33   Rehar (2000)

   a.   Surveys, most recently supported by the Ministry of Health, of the adult population of Slovenia.

34   World Health Organization (1997)

   a.   Slovenia.

   b.   No original source. Age groups shown are those with the highest prevalence.

35 **Žuškin *et al* (1995)**
   a. School boys in Zagreb and surrounding area, Croatia. Year not stated: 1994 assumed.

Age	Sample size
9-11	900
12	436
13	492
14	444
15	416
16	88
Total	2 776

   b. Results in *All ages* column in Table 4, and in Tables 5-6 relate to age 9-16. The prevalence of smoking for ages 12-16 was 19%.
   c. Smokers marked as frequency *: smoked 1+ cigarettes per day.
   d. Cigarettes per smoker calculated from distribution of numbers of cigarettes, given graphically.

36 **Legetic *et al* (2000) quoting Federal Commission on Addictive Diseases (no details of reference)**
   a. Year not stated: 1995 assumed. Age group not stated (adults). Assumed to refer to Federal Republic of Yugoslavia.
   b. The results for females shown in Table 4 are taken from the published abstract (1997). In the published paper, the prevalence is reported as 25-30%.

37-44 **Hibell *et al* (1997, 2000, 2004, 2009, 2012), Hibell and Guttormsson (2013)**
   a. School-based surveys forming part of ESPAD (European School Survey Project on Alcohol and Other Drugs). The standard procedure is to identify school grade(s) which include pupils born within a target year and thus age 15-16 at the time of the survey. The grades were usually secondary grades 1 and/or 2. Nationally representative samples of schools and classes were made. All pupils present on the day in the selected classes participated but only those born within the target year are included in the analysis. Survey administration was by research assistants with teachers absent. Anonymous questionnaire were completed and sealed in an envelope by the pupil, in class. The percentages **of** 15-16 year-olds still in school and the percentages who are in the surveyed grade(s) are generally >85%.

   Grades surveyed and exceptions to the procedures were as follows:

   37 Croatia: Secondary grade 1 only in 1995-1999, when only 70% of the target birth year group were in the surveyed grade, grades 1-2 thereafter. Administered by teachers or non-teaching school staff 1995-1999, school staff 2003-2011.

   38 Slovenia: Secondary grade 1 only, with 77% of the target group in the surveyed grade in 1995, rising to 90% by 2011. Administration by non-teaching school staff.

   39 Bosnia & Herzegovina – Republika Srpska (RS): Grade 1.

   40 Bosnia & Herzegovina – Federation of Bosnia and Herzegovina (FBiH): Grade 2. As the survey was conducted later in the year than in other countries, but the target group was not redefined, the average age is higher and the results were considered not comparable.

   41 Kosovo (UNSCR 1244): Grades 1-2. Questionnaires were placed in a closed box in class. The survey was conducted later in the year but the target was redefined as those born from 1st August 1995 to 30th July 1996, so that the average age was comparable to that in other countries.

   42 Macedonia: Grades 2-3. 83% of 15-16 year olds were still in school.

   43 Montenegro: Grades 1-2.

   44 Serbia: Grade 1.

   Further details of the surveys are shown in the table below:

		Date	Sample size		Participation rate (%)			Target year of birth	Average age
			Males	Females	Schools	Classes	Pupils		
37	**Croatia**	Apr 1995	1 518	1 297	–	100	92	1979	–
		Mar 1999	1 961	1 641	–	100	92	1983	15.2[*]
		Apr 2003	1 446	1 438	99	99	88	1987	15.8
		Apr 2007	1 554	1 454	100	99	89	1991	15.8
		Apr 2011	1 480	1 522	92	90	89	1995	15.8
38	**Slovenia**	Apr 1995	1 543	1 763	–	100	92	1979	–
		Mar-Apr 1999	1 791	1 393	–	100	91	1983	15.3[*]
		Apr 2003	1 406	1 379	100	100	88	1987	15.8
		Apr 2007	1 582	1 503	100	100	86	1991	15.8
		Mar-Apr 2011	1 561	1 625	100	100	89	1995	15.8
39	**RS**	Apr 2011	1 379	1 753	97	98	94	1995	15.8
40	**FBiH**	Nov-Dec 2011	1 888	1 925	99	99	93	1995	16.4
41	**Kosovo**	Sep-Oct 2011	1 000	1 324	95	–	97	1995-1996	15.7
42	**Macedonia**	Nov 1999	2 586	2 613	–	100	–	1983	15.9
43	**Montenegro**	Apr-May 2011	1 668	1 719	100	100	91	1995	15.8
44	**Serbia**	Mar 2011	2 823	3 261	97	97	86	1995	15.7

* as given by Hibell *et al* (2000), although the 2004 report said that ages as given in the 2000 report were systematically 0.5 years too low.

b. Smokers marked as frequency *: smoked 1 or more cigarettes per day in the previous 30 days. All smokers: smoked at least one cigarette in the previous 30 days.

c. Consumption category estimation based on 1-5, 6-10, 11-20, 21+ cigarettes/smoker/day.

45-47 Currie *et al* (2008, 2012), Inchley *et al* (2016)

a. Part of the HBSC (Health Behaviour in School-Aged Children) Study, a collaborative cross-national research study sponsored by the WHO. School classes or schools were randomly selected, targeting age groups 11 (not presented here), 13 and 15. The target sample size in each age group was 1 000 – 1 500.

		Year	Mean age		Sample size	
			Target age 13	Target age 15	Target age 13	Target age 15
45	**Croatia**	2002	13.4	15.4	1 500	1 446
		2006	13.5	15.6	1 669	1 630
		2010	13.5	15.5	1 949	2 424
		2014	13.6	15.6	2 002	1 946
46	**Macedonia**	2002	13.5	15.5	1 401	1 412
		2006	13.5	15.5	1 709	1 896
		2010	13.5	15.5	1 282	1 536
		2014	13.6	15.6	1 307	1 457
47	**Slovenia**	2002	13.7	15.8	1 413	1 069
		2006	13.5	15.6	1 842	1 561
		2010	13.6	15.6	1 811	1 815
		2014	13.6	15.6	1 734	1 615

b. Smokers marked as frequency *: smoked daily. Regular smokers: smoked once a week or more. All smokers: includes those smoking less than once a week.

48-50 World Health Organization (2012)

a. World Health Survey. Multinational survey initiated by the World Health Organization using standard survey procedures and instruments, conducted in 2002-2003. Target population comprises all people age 18+ living in the country (i.e. including guest workers, immigrants and refugees). Nationally representative. Households selected using a random stratified sampling procedure, then one individual per household selected. See also Table xi in the *Comparisons between countries* chapter.

	Sample size	Response rate (%)	
		households	individuals
48 **Bosnia and Herzegovina**	–	–	–
49 **Croatia**	911	72	100
50 **Slovenia**	585	50	86

b. Regular smokers: smoked daily. All smokers: smoked daily or not daily.

c. Calculation of cigarettes per person based on percentage smokers of all products, and number of cigarettes per cigarette smoker, so may overestimate.

d. Assumed extensions to age distribution for percentage smokers and for cigarettes/person/day are shown in the extended versions of Tables 4 and 6 respectively in the Excel tables workbook.

51-53 Mohedano-Brethes and Soufflot de Magny (2005), Christensen (2008), Papacostas (2008, 2009, 2012), European Commission: TNS Social and Opinion (2014)

a. Eurobarometer Surveys commissioned by the European Commission to monitor public opinion in the European Union. Some Eurobarometer surveys include questions on smoking habits. Sample size approximately 1 000. Results shown as **source 51** refer to Croatia, **52** to Slovenia and **53** to Macedonia.

b. These surveys provide results that are comparable across countries. However, they have been criticised for having small sample sizes and for generating "estimates that are in some cases widely discrepant from more substantive national sources" (Bogdanovica *et al* (2011)).

c. In 2002 (Candidate Country Eurobarometer, Slovenia only), the sample consisted of citizens of the country, and thereafter the sample consisted of people aged 15 and over who were resident in the country and had the nationality of any of the member states.

d. Frequency U (in Table 4) represents positive answers to questions such as "Do you smoke cigarettes?" or "You smoke packeted cigarettes". From 2005-2006 an additional question made it possible to identify regular smokers also; our estimates of regular cigarette smoking assume that the proportion smoking regularly applies equally to smokers of each product, which may cause anomalies. From 2009 the questionnaire format clearly asked about regular and occasional smoking and so frequency codes R and A are used.

e. In 2012 (Slovenia only), questions on what product or amount "do/did you smoke" were put to both current and ex smokers, and our estimates of prevalence for products TC and MC (Table 4), and of cigarettes per smoker (Table 5), assume that responses by current smokers relate to their smoking habits at the time, rather than throughout their lives.

f. Consumption category estimation based on <5, 5-9, 10-14, 15-19, 20-24, 25-29, 30-34, 35-39 and 40+ cigarettes/smoker/day. Exact values for cigarettes/smoker/day are available for 2009 (see also Appendix III) and 2012.

54-60 Centers for Disease Control and Prevention (CDC) (2016), Warren *et al* (2008)

a. Global Youth Tobacco Survey (GYTS). National school-based surveys targeting ages 13-15, using standardised data collection procedures. We show results restricted to 13-15 year olds where available, although it is not always clear from the original sources whether the whole sample or only ages 13-15 are included.

		Response rate (%)				Sample size (age 13-15)
		Schools	Classes	Students	Overall	
54 Bosnia & Herzegovina	2003	100	100	92	92	6 906
	2008	99	-	92	91	9 117
55 Croatia	2002	100	-	93	93	5 038
	2007	100	100	91	91	3 531
	2011	-	-	-	90	3 551
56 Kosovo	2004	98	100	89	87	2 444
57 Macedonia	2002	96	100	88	84	2 987
	2008	100	100	90	90	4 388
58 Montenegro	2004	100	100	87	87	1 966
	2008	100	99	93	93	3 299
59 Serbia	2003	100	100	90	90	3 506
	2008	100	99	90	89	3 350
60 Slovenia	2003	95	100	89	85	3 817
	2011	-	-	-	67	1 425

b. Smokers marked as frequency *: smoked daily. All cigarette smokers: smoked on at least one day in the last 30 days. Prevalence for product A* refers to current users of any tobacco product (i.e. may include smokeless tobacco users).

c. The prevalence (%) of usage of tobacco products other than cigarettes was as follows:

		Any product other than cigarettes		Cigars		Other	
		Males	Females	Males	Females	Males	Females
54 **Bosnia &**	2003	10.1	5.4	7.2	4.0		
Herzegovina	2008	9.3	5.8				
55 **Croatia**	2002			9.0	7.5		
	2007	14.6	13.0	12.5	12.5		
	2011			15.2	14.1		
56 **Kosovo**	2004	9.6	4.8	6.0	2.0		
57 **Macedonia**	2002	4.3	3.0				
	2003			4.1	1.7		
	2008			2.6	2.0		
58 **Montenegro**	2004	4.1	4.1	3.6	3.0		
	2008	3.7	3.5				
59 **Serbia**	2003	6.6	7.5	5.6	7.3	Pipe: 2.0	0.7
						Smokeless: 0.7	0.8
	2008	5.5	5.8				
60 **Slovenia**	2003	11.6	6.7	9.7	5.3	Pipe: 2.5	1.4
						Smokeless: 3.5	2.0
	2011			5.5	3.3		

Among current cigarette smokers, the % smoking hand-rolled or manufactured cigarettes were reported as follows:

			Hand-rolled		Manufactured	
			Males	Females	Males	Females
59	**Serbia**	2003	13.1	8.6	90.5	94.1
60	**Slovenia**	2003	29.3	14.3	89.6	94.5

61 Eurostat (2007)
- a. Surveys collated by Eurostat as the 2004 round of data collection on Health Interview Surveys. In **Slovenia**, a national survey on health and the health system, a module attached to an annual public opinion survey, excluding residents of institutional premises. Target sample 1 500 persons. Response rate 73%. Achieved sample 1 097 persons aged 18+.
- b. The *All ages* values refer to ages 18+; age-specific data are not available for the age groups marked *. The highest age groups shown are 75-84 and 85+.
- c. Consumption category estimation based on two categories, 1-19 and 20+ cigarettes/cigarette smoker/day, and resulting figures should be regarded with caution.
- d. Calculation of cigarettes per person based on percentage smokers (product unspecified), and number of cigarettes per cigarette smoker, so may overestimate.
- d. Assumed extensions to age distribution for percentage smokers and for cigarettes/person/day are shown in the extended versions of Tables 4 and 6 respectively in the Excel tables workbook.

62 Eurostat (2013)
- a. European Health Interview Surveys, coordinated by EUROSTAT, Wave 1. Conducted in **Slovenia** in Oct-Nov 2007. Individuals living in private households. Smoking behaviour was obtained through self-completion questionnaires. Sample size 2 118, response rate not stated, no proxy respondents.
- b. The *All ages* values refer to ages 15+; age-specific data are not available for the age groups marked *. The highest age groups shown are 75-84 and 85+.
- c. Regular cigarette smoker: smoked manufactured or hand-rolled cigarettes daily.
- d. Consumption category estimation based on two categories, 1-19 and 20+ cigarettes/smoker/day, and resulting figures should be regarded with caution.

63 Gallus *et al* (2012, 2014)
- a. Surveys by PPACTE in 2010 in 18 European countries. Coordinated by DOXA, the Italian branch of the GALLUP International Association. Face-to-face interviews using computer-assisted personal interviewing. The survey in **Croatia** used multi-stage random sampling. Age range 18+. Sample size 948, response rate 35%.

b. One section of the survey involved asking to see the subject's most recently bought pack of cigarettes or hand-rolling tobacco. Among smokers (sexes combined), the type of pack bought most recently was:

Pack type	Proportion (%)
Cigarettes, 20-pack	90.0
Cigarettes, 10-pack	1.1
Hand-rolling tobacco	7.5
Other	1.4

c. Among current cigarette smokers, 89% smoked only factory made cigarettes, 6% smoked only roll-your-own, and 5% smoked both types.

d. Use of smokeless tobacco was reported by 0.3% of men and 0.5% of women.

e. Cigarettes per smoker relates to all smokers rather than regular smokers.

f. Assumed extensions to age distribution for percentage smokers and for cigarettes/person/day are shown in the extended versions of Tables 4 and 6 respectively in the Excel tables workbook.

Additional information (not presented in tables)

In addition to the results shown in Table 4 as source **33**, Rehar (2000) reported earlier surveys of the adult population in Slovenia, but only for the sexes combined. The prevalence of smoking was reported as 39.7% in 1974-1975; 35.6 in 1978; and 32.4% in 1981-1982.

References

Beljo J. (1995). New markets still proving elusive for Macedonia. *Tob J Int*, **5**, 32 and 34.

Blecher E., Liber A., Ross H. and Birckmayer J. (2015). Euromonitor data on the illicit trade in cigarettes [Letter]. *Tob Control*, **24**, 100-101.

Boddewyn J.J. (ed.) (1986). *Tobacco advertising bans and consumption in 16 countries*. International Advertising Association, New York.

Bogdanovica I., Godfrey F., McNeill A. and Britton J. (2011). Smoking prevalence in the European Union: a comparison of national and transnational prevalence survey methods and results. *Tob Control*, **20**, e4.

Bozicevic I., Gilmore A. and Oreskovic S. (2004). *The tobacco epidemic in South-East Europe. Consequences and policy responses*. HNP discussion paper. Economics of tobacco control paper no 18. http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2004/05/17/000265513_20040517151803/Rendered/PDF/288640Bozicevic1Consequences0of1whole.pdf

Bundesverband der Zigarrenindustrie (accessed Jun 2011) *EU - Absatzentwicklung 1970 - 2010*. http://www.zigarren-verband.de/bdz/images/stories/eu-absatz.pdf

Bundesverband der Zigarrenindustrie (accessed Oct 2013) *EU - Absatzentwicklung 1970 - 2011*. http://www.zigarren-verband.de/bdz/zigarrenbranche/absatz; http://www.zigarren-verband.de/bdz/images/stories/eu%20-%20absatzentwicklung%201970-2011.pdf

Burany B., Szabo E., Mikov M., Popovic S. and Babcsanyi S. (1992a). Prilog proucavanju pusenja. I. Pusacko iskusto, broj popusenih cigareta (Smoking. I. Smoking habits, number of cigarettes smoked). *Med Pregl*, **45**, 369-372.

Burany B., Szabo E., Mikov M., Popovic S. and Babcsanyi S. (1992b). Prilog proucavanju pusenja. II. Duzina pusackog stanza i faktori od uticaja no pusenje kao drustvenu pojavu. (Smoking. II. Duration of smoking and factors affecting smoking as a social phenomenon). *Med Pregl*, **45**, 451-454.

Centers for Disease Control and Prevention (CDC) (accessed June 2016) *Global Tobacco Surveillance System Data (GTSSData), Global Youth Tobacco Survey (GYTS). Country fact sheets and Country reports*. http://nccd.cdc.gov/GTSSData/default/default.aspx

Christensen T. (2008, accessed Nov 2010). *Eurobarometer 64.3: Foreign languages, biotechnology, organized crime, and health items, November-December 2005 [Computer file]*, First GESIS-ZA

edition as of 2008-09-05. Zentralarchiv für Empirische Sozialforschung an der Universität zu Köln (ZA). ZA4415. http://zacat.gesis.org/webview/index.jsp

Croatian Bureau of Statistics (2004). *Statistical Yearbook of the Republic of Croatia 2004*. Croatian Bureau of Statistics, Zagreb. http://www.dzs.hr/default_e.htm

Croatian Bureau of Statistics; Pugar J. and Malez J. (eds.); Crkvenčić-Bojić J. (series-ed.) (2005-2010). *Industrijska proizvodnja. Godišnji izvještaj - PRODCOM - rezultati (Industrial production. Annual PRODCOM results)*. Croatian Bureau of Statistics, Zagreb. Statistical Reports. http://www.dzs.hr/default_e.htm

Croatian Bureau of Statistics (2010-2014). *Statistical Yearbook of the Republic of Croatia*. Croatian Bureau of Statistics, Zagreb. http://www.dzs.hr/default_e.htm

Croatian Bureau of Statistics; Pugar J. and Malez J. (eds.); Ostroški L. (series-ed.) (2012-2015). *Industrijska proizvodnja. Godišnji izvještaj - PRODCOM - rezultati (Industrial production. Annual PRODCOM results)*. Croatian Bureau of Statistics, Zagreb. Statistical Reports. http://www.dzs.hr/default_e.htm

Croatian Bureau of Statistics (2015, accessed Oct 2015). *Export/import, by product codes of the Customs Tariff (CT 8/10) and countries of destination/origin by Countries, Customs Tariff, Export/Import, Year and Indicator*. http://www.dzs.hr/default_e.htm

Currie C., Nic Gabhainn S., Godeau E., Roberts C.*, et al.* (eds.) (2008). *Inequalities in young people's health. Health behaviour in school-aged children: international report from the 2005/2006 survey*. World Health Organization. Health policy for children and adolescents, No. 5. http://www.euro.who.int/__data/assets/pdf_file/0005/53852/E91416.pdf

Currie C., Zanotti C., Morgan A., Currie D.*, et al.* (eds.) (2012). *Social determinants of health and well-being among young people. Health Behaviour in School-aged Children (HBSC) study: international report from the 2009/2010 survey*. WHO Regional Office for Europe, Copenhagen. Health Policy for Children and Adolescents No 6. http://www.euro.who.int/__data/assets/pdf_file/0003/163857/Social-determinants-of-health-and-well-being-among-young-people.pdf; http://www.hbsc.org/documents/HBSC_2009-2010_Survey_Response_Rates.xls

Djordjević B.S., Balog B., Božinović L., Josipović V.*, et al.* (1970). Coronary heart disease in seven countries. XII. Three cohorts of men followed five years in Serbia. *Circulation*, **41 (Suppl I)**, I-123-137.

ERC (2004). *World cigarette market - the 2004 survey*. ERC Group PLC. §

ERC (2007). *World cigarettes 1 : The 2007 report*. ERC Statistics Intl PLC. §

ERC Group PLC (2001). *World cigarettes 1 and 2 - the 2001 survey*. ERC, Suffolk, UK. §

Eriksen M., Mackay J. and Ross H. (2012). *The tobacco atlas*, 4th edition. American Cancer Society, World Lung Foundation.

Euromonitor International (2007). *The world market for tobacco*. Euromonitor International Inc. §

Euromonitor International (accessed Oct 2011) *Passport database*. §

Euromonitor International (2013). *PS 2010 report*. http://www.portal.euromonitor.com/Portal/Pages/Statistics/Statistics.aspx §

Euromonitor International (2015a, Aug). *Cigars in Slovenia [Executive summary]*. Euromonitor International. http://www.euromonitor.com/cigars-in-slovenia/report

Euromonitor International (2015b, Aug). *Smoking tobacco in Croatia [Executive summary]*. Euromonitor International. http://www.euromonitor.com/smoking-tobacco-in-croatia/report

Euromonitor International (2015c, Aug). *Smoking tobacco in Slovenia [Executive summary]*. Euromonitor International. http://www.euromonitor.com/smoking-tobacco-in-slovenia/report

Euromonitor International (accessed Apr 2016) *Market research on cigars*. http://www.euromonitor.com/cigars

European Commission (2012). *Attitudes of Europeans towards tobacco. Special Eurobarometer 385/Wave EB 77.1*. European Commission. http://ec.europa.eu/public_opinion/archives/ebs/ebs_385_en.pdf

European Commission: TNS Social and Opinion (2014, accessed Feb 2015). *Euro-barometer 77.1: Robotics, Civil Protection, Humanitarian Aid, Smoking Habits, and Multilingualism, Feb-Mar 2012 [Computer file]*, ZA5597 Data file Version 3.0.0. GESIS Data Archive, Cologne. http://zacat.gesis.org/webview/index.jsp

Eurostat (accessed Aug 2007) *Health status indicators from the national Health Interview Surveys (HIS round 2004)*. http://ec.europa.eu/eurostat [Statistics: Browse/Search database: Population and social conditions: Health: Public health]

Eurostat (accessed May 2013) *European Health Interview survey (EHIS), collection round 2008, determinants of health*. http://ec.europa.eu/eurostat [Statistics: Browse/Search database: Population and social conditions: Health: Public health]

Gallup Organisation Hungary (2009). *Survey on tobacco. Analytical report. Flash Eurobarometer 253*. European Commission. http://ec.europa.eu/public_opinion/flash/fl_253_en.pdf

Gallus S., Lugo A., Ghislandi S., La Vecchia C. and Gilmore A.B. (2014). Roll-your-own cigarettes in Europe: use, weight and implications for fiscal policies. *Eur J Cancer Prev*, **23**, 186-192.

Gallus S., Lugo A., La Vecchia C., Boffetta P.*, et al.* (2012). *European survey on economic aspects of smoking*. Istituto di ricerche farmacologiche Mario Negri, Seventh Framework Programme, Dublin. PPACTE (Pricing Policies and Control of Tobacco in Europe). http://www.tri.ie/uploads/3/1/3/6/31366051/european_survey_on_economic_aspects_of_smoking_wp2_ppacte.pdf

Geizerova H. and Masironi R. (1988). Cigarette smoking in children and adolescents: world review. In: Aoki M., Hisamichi S. and Tominaga S. (eds.) *Smoking and health 1987*. Presented at *6th World Conference on Smoking and Health, Tokyo, 9-12 November 1987*. Elsevier Science Publishers B.V. (Biomedical Division), Amsterdam; 601-605.

Gilmore A.B., Rowell A., Gallus S., Lugo A., Joossens L. and Sims M. (2014). Towards a greater understanding of the illicit tobacco trade in Europe: a review of the PMI funded 'Project Star' report. *Tob Control*, **23**, e51-e61.

Grubišić-Greblo H., Jonjić A. and Vukelić M. (1989). Pojava udisanja para ljepila kod učenika srednjih škola (Manifestations of glue sniffing in secondary school students). *Arh Hig Rada Toksikol*, **40**, 313-318.

Harkin A.M., Anderson P. and Goos C. (1997). *Smoking, drinking and drug taking in the European Region*. Alcohol, Drugs and Tobacco Programme, WHO Regional Office for Europe, Copenhagen.

Hibell B., Andersson B., Ahlström S., Balakireva O.*, et al.* (2000). *The 1999 ESPAD report. Alcohol and other drug use among students in 30 European countries*. The Swedish Council for Information on Alcohol and Other Drugs (CAN) and Council of Europe, Co-operation Group to Combat Drug Abuse and Illicit Trafficking in Drugs (Pompidou Group). http://www.espad.org/uploads/espad_reports/1999/the_1999_espad_report.pdf

Hibell B., Andersson B., Bjarnason T., Ahlström S.*, et al.* (2004). *The ESPAD report 2003. Alcohol and other drug use among students in 35 European countries*. The Swedish Council for Information on Alcohol and Other Drugs (CAN) and Council of Europe, Co-operation Group to Combat Drug Abuse and Illicit Trafficking in Drugs (Pompidou Group), Stockholm. Sweden. http://www.vub.ac.be/downloads/bijlagen/espad.pdf

Hibell B., Andersson B., Bjarnason T., Kokkevi A., Morgan M. and Narusk A. (1997, September). *The 1995 ESPAD report. The European school survey project on alcohol and other drugs. Alcohol and other drug use among students in 26 European countries*. The Swedish Council for Information on Alcohol and Other Drugs. Council of Europe (Pompidou Group). http://www.espad.org/Uploads/ESPAD_reports/1995/The_1995_ESPAD_report.pdf

Hibell B. and Guttormsson U. (2013). *A supplement to the 2011 ESPAD report - additional data from Bosnia and Herzegovina (Federation of Bosnia and Herzegovina), Kosovo (under UNSCR 1244) and the Netherlands*. The Swedish Council for Information on Alcohol and Other Drugs (CAN), European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) and Council of Europe, Co-operation Group to Combat Drug Abuse and Illicit Trafficking in Drugs (Pompidou Group), Stockholm. http://www.espad.org/Uploads/ESPAD_reports/2011/FULL%20REPORT%20-%20Supplement%20to%20The%202011%20ESPAD%20Report%20-%20WEB.pdf

Hibell B., Guttormsson U., Ahlström S., Balakireva O.*, et al.* (2009). *The 2007 ESPAD report. Substance use among students in 35 European countries*. The Swedish Council for Information on Alcohol

and Other Drugs (CAN), European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) and Council of Europe, Co-operation Group to Combat Drug Abuse and Illicit Trafficking in Drugs (Pompidou Group), Stockholm. http://www.espad.org/Uploads/ESPAD_reports/2007/The_2007_ESPAD_Report-FULL_091006.pdf

Hibell B., Guttormsson U., Ahlström S., Balakireva O.*, et al.* (2012). *The 2011 ESPAD report. Substance use among students in 36 European countries*. The Swedish Council for Information on Alcohol and Other Drugs (CAN), European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) and Council of Europe, Co-operation Group to Combat Drug Abuse and Illicit Trafficking in Drugs (Pompidou Group), Stockholm. http://www.espad.org/Uploads/ESPAD_reports/2011/The_2011_ESPAD_Report_FULL_2012_10_29.pdf

Hutson J.B. (1937). *Consumption and production of tobacco in Europe*. USDA, Washington DC. Technical bulletin No. 587.

Inchley J., Currie A.R., Young T., Samdal O.*, et al.* (eds.) (2016). *Growing up unequal: gender and socioeconomic differences in young people's health and well-being. Health Behaviour in School-aged Children (HBSC) study: international report from the 2013/2014 survey*. WHO Regional Office for Europe, Copenhagen. Health Policy for Children and Adolescents No 7. http://www.euro.who.int/__data/assets/pdf_file/0003/303438/HSBC-No7-Growing-up-unequal-full-report.pdf?ua=1

Jakovljevic D. (1977). Anti-smoking program in Yugoslavia. In: Steinfeld J., Griffiths W., Ball K. and Taylor R.M. (eds.) *Health consequences, education, cessation activities, and social action*. Presented at *Proceedings of the Third World Conference on Smoking and Health, New York City, June 2-5, 1975*. US Department of Health, Education and Welfare, USA; 795-798.

Joossens L., Lugo A., La Vecchia C., Gilmore A.B., Clancy L. and Gallus S. (2014). Illicit cigarettes and hand-rolled tobacco in 18 European countries: a cross-sectional survey. *Tob Control*, **23**, e17-e23.

Keys A., Aravanis C., Blackburn H.W., van Buchem F.S.P.*, et al.* (1966). Epidemiological studies related to coronary heart disease: characteristics of men aged 40-59 in seven countries. *Acta Med Scand*, **(Suppl 460)**, 8-392.

Kozarević D., Pirc B., Dawber T.R., Gordon T., Zukel W.J. and Vojvodić N. (1976). The Yugoslavia cardiovascular disease study. I. The incidence of coronary heart disease by area. *J Chronic Dis*, **29**, 405-414.

KPMG (2012). *Project star 2011 results*. KPMG LLP. http://www.pmi.com/eng/tobacco_regulation/illicit_trade/documents/project%20star%202011%20results.pdf

KPMG (2013). *Project star 2012 results*. KPMG LLP. http://www.pmi.com/eng/media_center/media_kit/Documents/Project_Star_2012_Final_Report.pdf

KPMG (2014). *Project sun. A study of the illicit cigarette market in the European Union. 2013 results*. KPMG LLP. http://www.pmi.com/eng/media_center/media_kit/Documents/SUN%20Report%202013.pdf

KPMG (2015). *Project sun. A study of the illicit cigarette market in the European Union, Norway amd Switzerland. 2014 results*. KPMG LLP. http://kpmg.co.uk/creategraphics/2015/06_2015/CRT026736/files/assets/common/downloads/CRT026736%20Project%20SUN%20COMBINED%20v10.pdf

Krstič N. (1991). The obstacles to an active cigarette price policy in the Republic of Slovenia and Yugoslavia (1980-1990). *J Smoking-Related Dis*, **2**, 191-202.

Kulčar Ž., Kovačić L. and Bedenić B. (1974). Rasprostranjenost pušenja u stanovništvu SR Hrvatske (Smoking in the population of Croatia). *Lijec Vjesn*, **96**, 467-472.

Kuulasmaa K., Tolonen H., Ferrario M. and Ruokokoski E. (1998). *Age, date of examination and survey periods in the MONICA surveys*. World Health Organization. http://www.thl.fi/publications/monica/age/ageqa.htm

Legetic B., Planojevic M. and Jakovljevic D. (2000). Yugoslavia: Smoking prevention and control, with special reference to the Novi Sad MONICA project. In: Lu R., Mackay J., Niu S. and Peto R.

(eds.) *Tobacco: the growing epidemic*. Presented at *Proceedings of the Tenth World Conference on Tobacco or Health, Beijing, China, 24-28 August 1997*. Springer-Verlag, London, Berlin, Heidleberg; 505-507.

Mackay J., Eriksen M. and Shafey O. (2006). *The tobacco atlas*, 2nd edition. American Cancer Society, Atlanta, Georgia.

Mackay J.L. (1994). The fight against tobacco in developing countries. *Tuber Lung Dis*, **75**, 8-24.

Maxwell J.C., Jr. (Successive years). How the brands ranked. Maxwell International Estimates. *World Tob*.

Mimica M., Šarić M. and Malinar M. (1978). Naša ispitivanja o navici pušenja (A study of the smoking habit). *Arh Hig Rada Toksikol*, **29**, 209-218.

Mohedano-Brethes R. and Soufflot de Magny R. (2005, accessed May 2013). *Candidate Countries Eurobarometer 2002.1: Social situation in the countries applying for European Union membership [Computer file]*, 1.0.0, 2010-4-13. European Commission; The Gallup Organization Hungary, Budapest; GESIS Data Archive, Cologne. ZA4153. http://zacat.gesis.org

Molarius A., Kuulasmaa K., Evans A., McCrum E. and Tolonen H. (1999). *Quality assessment of data on smoking behaviour in the WHO MONICA project*. World Health Organization. http://www.thl.fi/publications/monica/smoking/qa30.htm

Nacional (various years). www.nacional.hr §

Nedeljkovic S., Ostojic M.C., Grujic M.Z., Josipovic V.*, et al.* (1993). Coronary heart disease deaths in 25 years. The experience in the three Serbian cohorts of the Seven Countries Study. *Acta Cardiol*, **48**, 11-24.

Oxford Economics (2012). *The influence of the availability of menthol cigarettes on youth smoking prevalence*. Oxford Economics, Oxford. http://www.pmi.com/eng/media_center/Documents/OE_2012_Menthol_and_youth_smoking_M.pdf

Papacostas A. (2008, accessed Apr 2008). *Euro-barometer 64.1: Mobility, food risk, smoking, AIDS prevention, and medical errors, September-October 2005 [Computer file]*, 1st GESIS-ZA edition as of March 12, 2008. Zentralarchiv für Empirische Sozialforschung an der Universität zu Köln (ZA). ZA4413. http://zacat.gesis.org/webview/index.jsp

Papacostas A. (2009, accessed Nov 2010). *Eurobarometer 66.2: Nuclear Energy and Safety, and Public Health Issues, October-November 2006 [Computer file]*, GESIS 1.0.0 (2009-05-27). Zentralarchiv für Empirische Sozialforschung an der Universität zu Köln (ZA). ZA4527. http://zacat.gesis.org/webview/index.jsp

Papacostas A. (2012, accessed Dec 2012). *Eurobarometer 72.3: Public health attitiudes, behavior, and prevention, October 2009 [Computer file]*, GESIS Version 2.0.0 (2012-02-03). Zentralarchiv für Empirische Sozialforschung an der Universität zu Köln (ZA), Cologne. ZA4977. http://zacat.gesis.org/webview/index.jsp; http://ec.europa.eu/public_opinion/archives/ebs/ebs_332_en.pdf

Philip Morris International *PMI estimates based on AC Nielsen and in-market sales data.* [Personal communication to Lee P.N.] 2004.

Prebeg Ž., Počekaj A., Lešić M. and Vragović-Košutić A. (1993). Trends in adolescent smoking in Croatia. *Croat Med J*, **34**, 251-256.

Rehar V. (2000). Slovenia: United in non-smoking: New thinking, model and philosophy. In: Lu R., Mackay J., Niu S. and Peto R. (eds.) *Tobacco: the growing epidemic*. Presented at *The Tenth World Conference on Tobacco or Health, Beijing, China, 24-28 August 1997*. Springer-Verlag, London, Berlin, Heidleberg; 485-488.

Shafey O., Eriksen M., Ross H. and Mackay J. (2009). *The tobacco atlas*, 3rd edition. American Cancer Society, World Lung Foundation. http://TobaccoAtlas.org; http://www.afro.who.int/index.php?option=com_docman&task=cat_view&gid=1487&Itemid=1974&lang=en

Skafida V., Silver K.E., Rechel B.P. and Gilmore A.B. (2014). Change in tobacco excise policy in Bulgaria: the role of tobacco industry lobbying and smuggling. *Tob Control*, **23**, e75-84.

Smajkić A., Žaraković G. and Čerkez F. (1972). Navike pušenja kod stanovništva u pet opština u Bosni i Hercegovini (Smoking habits among the population of 5 districts in Bosnia and Hercegovina). *Med Arh*, **26**, 35-38.

Statistical Office of the Republic of Slovenia (2015, accessed Oct 2015). *Exports and imports by 8-digit code of the Combined Nomenclature and by countries, Slovenia, cumulative data*. Statistični urad Republike Slovenije (SURS, Statistical Office of the Republic of Slovenia), Ljubljana. http://pxweb.stat.si/pxweb/Database/Economy/Economy.asp

Statistical Office of the Republic of Slovenia (accessed Apr 2016a) *Average annual allocated assets of households by COICOP, YEAR and MEASURES*. http://pxweb.stat.si/pxweb/Database/Economy/Economy.asp

Statistical Office of the Republic of Slovenia (accessed Apr 2016b) *Business tendency in manufacturing, limits to production, unadjusted data by SKD ACTIVITY, QUARTER, DATA and ECONOMIC INDICATORS*. http://pxweb.stat.si/pxweb/Database/Economy/Economy.asp

Tobačn Ljubljana (accessed Apr 2016) *Tobačna Ljubljana through time*. http://www.tobacna.si/en/company/history

Tolonen H., Kuulasmaa K. and Ruokokoski E. (2000, revised November 2005). *MONICA population survey data book*. World Health Organization. http://www.thl.fi/publications/monica/surveydb/title.htm

US Department of Agriculture (1997a, 21 Aug). *Bosnia and Herzegovina, tobacco and cigarette market*. USDA, Foreign Agricultural Services, Washington, DC. Foreign Agriculture Service GAIN Report (Global Agriculture Information Network). AGR Number BK7003. http://www.fas.usda.gov/scriptsw/AttacheRep/display_gedes_report.asp?Rep_ID=25050087

US Department of Agriculture (1997b, 24 Jan). *Tobacco (Macedonia)*. USDA, Foreign Agricultural Services, Washington, DC. Foreign Agriculture Service GAIN Report (Global Agriculture Information Network). AGR Number MK7001. http://www.fas.usda.gov/scriptsw/AttacheRep/display_gedes_report.asp?Rep_ID=10007119

US Department of Agriculture (2004, 15 November). *Croatia, tobacco and products, annual report, 2004*. USDA, Foreign Agricultural Service, Washington, DC. Foreign Agriculture Service GAIN Report (Global Agriculture Information Network). GAIN Report Number : HR4020. http://www.fas.usda.gov/gainfiles/200411/146118050.pdf

US Department of Agriculture (accessed Jul 2005, last updated 2005) *PSD online dataset for Tobacco, Mfg., Cigarettes*. http://www.fas.usda.gov/psdonline/psdHome.aspx

US Department of Agriculture Economic Research Service (USDA) (1996, June). *Tobacco statistics*. Albert R. Mann Library, Cornell University, Ithaca, New York. ERS 94012.

Warren C.W., Jones N.R., Peruga A., Chauvin J*., et al.* (2008). Global youth tobacco surveillance, 2000-2007. *MMWR Surveill Summ*, **57 (No. SS-1)**,

Wolf H.K., Kuulasmaa K., Tolonen H. and Ruokokoski E. (1998). *Participation rates, quality of sampling frames and sampling fractions in the MONICA surveys*. World Health Organization. http://www.thl.fi/publications/monica/nonres/nonres.htm

World Health Organization (1989). The WHO MONICA project: a worldwide monitoring system for cardiovascular diseases. In: *World Health Statistics Annual 1989*. WHO, Geneva; 25-149.

World Health Organization (1997). *Tobacco or health: A global status report*. WHO, Geneva. http://apps.who.int/iris/bitstream/10665/41922/1/924156184X_eng.pdf

World Health Organization (accessed Apr 2012) *World Health Survey*. http://www.who.int/healthinfo/survey/en/index.html

World Health Organization (accessed Apr 2013) *European health for all database (HFA-DB)*. http://data.euro.who.int/hfadb/

Zatonski W. (1991). Country reports. *World Smoking Health*, **16**, 12-21.

Zatoński W.A. and Przewoïniak K. (2010). Zawartość substancji smolistych w papierosach sprzedawanych w Polsce w latach 1983-2000 (The tar in cigarettes sold in Poland in the years 1983-2000). *Zdrowie Publiczne i Zarzadzanie*, 12-19.

Žuškin E., Smolej-Narančić N., Mustajbegović J. and Budak A. (1995). Navika pušenja u školske djece. (Smoking habit in schoolchildren). *Lijec Vjesn*, **117**, 278-281.

§ Original paper not obtained, but information taken as quoted by another author

Yugoslavia and successors