
International Smoking Statistics

Web Edition

A collection of worldwide historical data

Belgium

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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.

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]

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];

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

We would like to acknowledge the tobacco industry for their financial support and for providing some of the sales data in International Smoking Statistics.

We would also like to thank the many government and research organizations and individuals who supplied much of the information included.

We thank Yvonne Cooper, Pauline Wassell and Diana Morris for maintenance of our references database.

We are indebted to G. F. Todd, past director of the Tobacco Research Council, who, shortly before he died in 1988, had prepared a draft report from which the first edition of International Smoking Statistics developed.

Professor Nicholas Wald was an editor of earlier editions, and we thank him for his support and encouragement.

We alone bear the responsibility for the analysis and interpretation of the data presented.

Introduction

Regions considered

This chapter considers the country of Belgium, including the province of Luxembourg. In general it does not consider the country of Luxembourg (le Grand-Duché de Luxembourg). However, some sales data are available only for the Belgium-Luxembourg Economic Union (Union économique belgo-luxembourgeoise, UEBL).

Sales data

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

From 1921 to 1940 the consumption of manufactured cigarettes per adult was about 2 cigarettes per day. During the Second World War it fell to about 1 cigarette per day, but rapidly jumped to exceed pre-war levels in the late 1940s. Thereafter consumption rose until 1973, when it peaked at 7 cigarettes per day. It then decreased, passing below 4 in 2007. Our estimates suggest that consumption of hand-rolled cigarettes per adult fell from over 5 per day in the 1920s to about 1.5 in the late 1970s. Later estimates are probably distorted by cross-border sales.

Apart from a sharp decline during the Second World War, the consumption per adult of all tobacco products combined varied between 8 and 10 g per day in the period 1921-1985. It then decreased, lying between 6 and 8 g from then on. It is notable that the category 'Other tobacco', covering pipe and hand-rolling tobacco, chewing tobacco and snuff, accounted for over 65% of all tobacco sold in 1925 and continued to make up more than half of the weight of tobacco sold until the mid 1940s. This fell to 17% in 1975 but then increased to over 35% in 2005. This rise may be at least partly due to cross-border sales to other countries. In 1925, about 20% of all tobacco sold was in manufactured cigarettes. This proportion increased to 70% in 1975, but fell again to about 60% by 1995. The proportion of cigars and cigarillos remained around 10% between 1925 and 1985 then fell somewhat.

The geographical position of Belgium next to relatively low-taxed Luxembourg and close to higher-taxed UK confuses estimates of the tobacco consumed within Belgium.

Survey data

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

Data on adult smoking are available since 1955. In 1955, the estimated prevalence of tobacco smoking among those aged 15 years and over was 77% in men and 20% in women. The difference between men and women in the percentage who smoke has decreased since then, mainly because of a decrease in smoking prevalence among men (to 22-24% in the 2010s). The percentages of men smoking manufactured cigarettes decreased from about 50% in 1972 to 35% in 1980; in that year another 9% of men smoked hand-rolled cigarettes only. By 2009 21% of men smoked manufactured cigarettes and 11% hand-rolled only. The prevalence of smoking among women changed comparatively little, with most surveys reporting 15-25% during the 1960s, 1970s and 2000s. There was a slight

rise, during the 1980s and 1990s, to 20-30%. Smoking of products other than manufactured cigarettes was negligible among women.

No major trends in the prevalence of smoking by age are evident, but in general the percentage smoking was lower, in both men and women, after age 20-40, declining more markedly among those aged 65 years and over. Throughout the time period studied, a low percentage of women in the oldest age groups smoked. While this was not seen among men in the early studies, this has become more evident for men since the 1990s. Most surveys of teenagers continue to show more boys smoking than girls although the difference is generally not very great.

Comparison of survey and sales data shows under-reporting of consumption ranging from 1% to 67% (see Table 6). The difficulties in estimating consumption from sales data may be affecting these estimates. Between 1972 and 2006, the estimated number of manufactured cigarettes smoked per person per day (sales-adjusted) decreased for men from about 10 to 4 with a further 3 hand-rolled cigarettes smoked per day; for women this has stayed around 4 to 5 cigarettes since the 1980s.

Table 1.1 Total annual sales of tobacco products, 1921-1973

Year	Manufactured cigarettes		Cigars		Cigarillos		Other tobacco tonnes	All tobacco products tonnes
	tonnes	millions	tonnes	millions	tonnes	millions		
1921	3 420	3 421	1 140	240	480	192	11 610	16 660
1922	3 550	3 546	1 410	297	520	210	12 610	18 100
1923	3 780	3 775	1 500	314	630	252	12 970	18 870
1924	4 160	4 155	1 430	301	650	259	12 970	19 210
1925	4 210	4 207	1 320	277	750	301	12 880	19 160
1926	4 460	4 457	1 120	235	650	262	13 290	19 520
1927	4 830	4 829	1 300	274	700	279	13 200	20 030
1928	5 540	5 540	1 310	275	710	286	12 840	20 400
1929	6 110	6 108	1 380	289	830	331	12 610	20 920
1930	6 800	6 799	1 350	283	870	347	12 470	21 490
1931	6 840	6 838	1 310	275	830	334	12 700	21 680
1932	5 980	5 982	1 090	228	800	321	12 700	20 570
1933	5 530	5 525	970	203	890	357	12 470	19 860
1934	4 980	4 981	850	178	1 030	412	12 790	19 650
1935	4 960	4 955	920	193	1 280	511	12 930	20 080
1936	5 120	5 116	940	197	1 450	580	13 340	20 840
1937	5 260	5 258	910	192	1 460	584	12 930	20 560
1938	5 110	5 108	920	194	1 540	615	13 200	20 770
1939	5 130	5 128	850	179	1 390	556	14 330	21 700
1940	4 150	4 150	830	175	1 070	429	11 570	17 620
1941	3 720	3 723	670	140	610	243	10 610	15 610
1942	3 280	3 284	500	105	540	218	8 750	13 080
1943	1 890	1 889	480	101	520	208	4 400	7 290
1944	2 070	2 070	360	75	450	181	3 950	6 830
1945	2 560	2 563	510	107	620	250	6 080	9 780
1946	6 390	6 386	600	125	750	302	10 120	17 850
1947	8 550	8 549	450	94	590	238	9 840	19 440
1948	8 900	8 901	410	87	650	260	9 840	19 810
1949	8 420	8 414	400	85	650	261	9 980	19 450
1950	8 400	8 399	400	83	650	261	9 800	19 250
1951	8 200	8 197	430	91	710	285	9 660	19 010
1952	8 120	8 115	590	123	960	383	10 480	20 140
1953	8 220	8 217	620	131	1 110	445	10 020	19 980
1954	8 260	8 263	710	149	1 270	510	9 840	20 090
1955	8 650	8 652	750	158	1 340	537	9 210	19 960
1956	9 130	9 132	820	173	1 440	577	9 300	20 700
1957	9 860	9 859	900	190	1 490	596	9 070	21 330
1958	10 480	10 480	920	193	1 400	561	8 850	21 650
1959	10 310	10 308	1 030	217	1 490	597	8 750	21 590
1960	10 970	10 973	1 100	232	1 620	647	8 390	22 090
1961	11 250	11 253	1 220	257	1 650	661	8 210	22 340
1962	11 870	11 868	1 340	282	1 830	732	7 980	23 030
1963	12 330	12 325	1 270	267	1 700	681	7 530	22 830
1964	12 790	12 791	1 440	303	2 070	829	7 300	23 610
1965	14 090	14 083	1 510	317	2 030	814	7 030	24 660
1966	15 150	15 147	1 510	316	1 820	730	6 620	25 100
1967	15 450	15 448	1 420	299	1 860	746	7 620	26 360
1968	15 820	15 814	1 350	284	2 000	801	6 580	25 750
1969	16 640	16 633	1 360	285	1 970	790	5 990	25 950
1970	17 630	17 632	1 260	265	1 870	749	5 400	26 170
1971	18 340	18 334	1 360	285	2 150	859	5 170	27 010
1972	19 170	19 165	1 400	295	2 230	891	4 900	27 700
1973	20 240	20 236	1 430	301	2 110	845	4 670	28 460

Source: see *Notes on sources of sales data: Sales data before 1974*, p. 40.

Table 1.2 Total annual sales of tobacco products, 1974-2011

Year	Manufactured cigarettes		Cigars		Cigarillos		Cigars and cigarillos		Other tobacco tonnes	All tobacco products tonnes
	tonnes	millions	tonnes	millions	tonnes	millions	tonnes	millions		
1974	20 179	20 179	1 350	281	1 983	793	3 333	1 075	4 583	28 095
1975	18 868	18 868	1 307	272	2 131	852	3 438	1 125	4 594	26 900
1976	18 370	18 370	1 227	256	2 184	874	3 412	1 129	4 873	26 654
1977	17 673	17 673	1 166	243	2 070	828	3 236	1 071	4 985	25 894
1978	15 590	15 590	1 074	224	2 079	832	3 153	1 055	4 779	23 521
1979	16 878	16 878	982	204	1 893	757	2 874	961	4 548	24 300
1980	16 858	16 858	937	195	1 924	769	2 861	965	4 421	24 140
1981	16 657	16 657	736	153	1 730	692	2 466	845	4 792	23 915
1982	17 927	17 927	669	139	1 682	673	2 351	812	6 042	26 319
1983	17 033	17 033	633	132	1 735	694	2 368	826	6 692	26 094
1984	17 178	17 178	620	129	1 697	679	2 317	808	7 151	26 646
1985	15 897	15 897	554	116	1 711	684	2 265	800	7 046	25 208
1986	15 485	15 485	472	98	1 549	620	2 021	718	6 425	23 931
1987	14 507	14 507	450	94	1 528	611	1 979	705	5 846	22 332
1988	14 903	14 903	407	85	1 513	605	1 920	690	5 585	22 408
1989	14 184	14 184					1 820	650	5 080	21 084
1990	13 687	13 687					1 798	642	4 579	20 064
1991	13 966	13 966					1 694	605	4 518	20 178
1992	13 543	13 543					1 562	558	4 780	19 885
1993	12 556	12 556					1 476	527	4 555	18 587
1994	12 085	12 085					1 618	578	4 940	18 643
1995	12 373	12 373					1 602	572	6 561	20 536
1996	12 270	12 270					1 554	555	7 719	21 543
1997	11 576	11 576					1 599	571	8 667	21 842
1998	12 295	12 295					1 574	562	9 287	23 156
1999	13 448	13 448					1 688	603	8 217	23 353
2000	13 732	13 732					1 669	596	8 716	24 117
2001	13 030	13 030					1 518	542	7 017	21 565
2002	14 314	14 314					1 761	629	8 417	24 492
2003	14 287	14 287					1 478	528	8 327	24 092
2004	13 634	13 634					1 546	552	8 429	23 609
2005	13 385	13 385					1 518	542	8 198	23 101
2006	13 385	13 385					1 520	543	9 168	24 073
2007	12 493	12 493					1 518	542	7 478	21 489
2008	11 916	11 916					1 366	488	6 447	19 729
2009	11 616	11 616					1 159	414	7 548	20 323
2010	12 550	12 550					1 120	400	8 580	22 250
2011	9 910	9 910					868	310	7 500	18 278

Source: see Notes on sources of sales data: Sales data for 1974 onwards, p. 40.

Table 1.3 Total annual sales of tobacco products, UEBL¹, 1974-1996

Year	Manufactured cigarettes millions	Cigars millions	Cigarillos millions	Cigars and cigarillos millions	Other tobacco² tonnes
1974	21 200			1 100	4 690
1975	20 630			1 170	4 730
1976	20 210			1 170	4 992
1977	19 850			1 120	5 105
1978	17 950			1 090	4 891
1979	19 300			1 000	4 647
1980	19 540	204	809	1 013	4 547
1981	19 800				
1982	21 800				
1983	21 300				
1984	20 900				
1985	19 612	122	717	839	7 387
1986	18 945	104	650	754	6 738
1987	17 862	99	641	741	6 124
1988	18 171	90	632	722	5 852
1989	17 607	82	599	681	5 367
1990	17 455	73	600	673	4 904
1991	17 939	73	565	638	4 899
1992	17 706	67	514	581	5 181
1993	16 744	56	507	563	5 129
1994	16 192	57	554	611	5 616
1995	16 067	53	555	608	7 294
1996	15 976	48	544	591	8 301

¹ Union économique belgo-luxembourgeoise

² Other tobacco: smoking tobacco, chewing tobacco and snuff

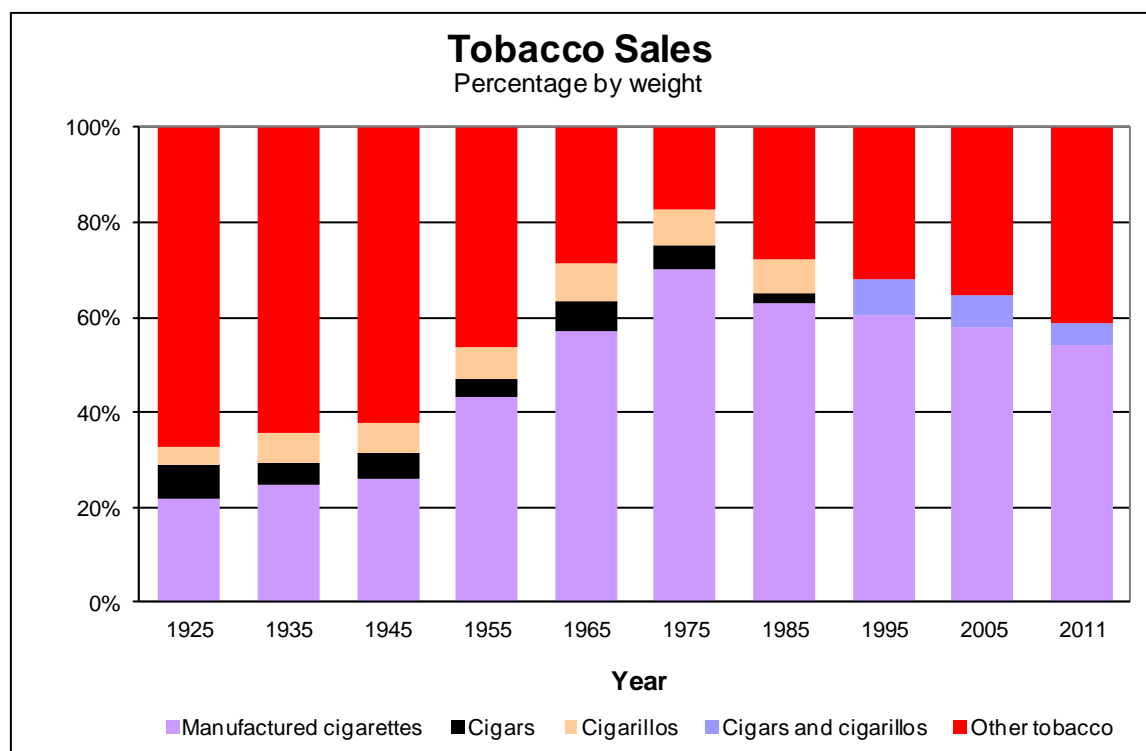
Source: see *Notes on sources of sales data: Sales data for 1974 onwards*, p. 40.

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

Year	Manufactured cigarettes %	Cigars %	Cigarillos %	Cigars and cigarillos %	Other tobacco %
1925	22.0	6.9	3.9		67.2
1935	24.7	4.6	6.4		64.4
1945	26.2	5.2	6.3		62.2
1955	43.4	3.8	6.7		46.2
1965	57.1	6.1	8.2		28.5
1975	70.1	4.9	7.9		17.1
1985	63.1	2.2	6.8		27.9
1995	60.3			7.8	31.9
2005	57.9			6.6	35.5
2011	54.2			4.7	41.0

Source: calculated from Tables 1.1 & 1.2.

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



Source: Table 1.4.

Table 2 Sales of cigarettes (including estimated number of hand-rolled cigarettes) and of all tobacco products.
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
1921	3 421	1.6	10 449	5.0	13 870	6.6	16 660	8.0
1922	3 546	1.7	11 349	5.4	14 895	7.1	18 100	8.7
1923	3 775	1.8	11 673	5.5	15 448	7.3	18 870	8.9
1924	4 155	2.0	11 673	5.5	15 828	7.5	19 210	9.1
1925	4 207	2.0	11 592	5.4	15 799	7.4	19 160	8.9
1926	4 457	2.0	11 961	5.5	16 418	7.5	19 520	9.0
1927	4 829	2.2	11 880	5.4	16 709	7.6	20 030	9.1
1928	5 540	2.5	11 556	5.2	17 096	7.8	20 400	9.3
1929	6 108	2.7	11 349	5.1	17 457	7.8	20 920	9.4
1930	6 799	3.0	11 223	5.0	18 022	8.0	21 490	9.5
1931	6 838	3.0	11 430	5.0	18 268	8.0	21 680	9.5
1932	5 982	2.6	11 430	4.9	17 412	7.5	20 570	8.9
1933	5 525	2.4	11 223	4.9	16 748	7.2	19 860	8.6
1934	4 981	2.1	11 511	4.9	16 492	7.1	19 650	8.4
1935	4 955	2.1	11 637	5.0	16 592	7.1	20 080	8.6
1936	5 116	2.2	12 006	5.1	17 122	7.3	20 840	8.8
1937	5 258	2.2	11 637	4.9	16 895	7.2	20 560	8.7
1938	5 108	2.1	11 880	5.0	16 988	7.1	20 770	8.7
1939	5 128	2.1	12 897	5.4	18 025	7.5	21 700	9.1
1940	4 150	1.8	10 413	4.4	14 563	6.2	17 620	7.5
1941	3 723	1.6	9 549	4.0	13 272	5.6	15 610	6.6
1942	3 284	1.4	7 875	3.3	11 159	4.7	13 080	5.6
1943	1 889	0.8	3 960	1.7	5 849	2.5	7 290	3.1
1944	2 070	0.9	3 555	1.5	5 625	2.4	6 830	2.9
1945	2 563	1.1	5 472	2.3	8 035	3.4	9 780	4.1
1946	6 386	2.6	9 108	3.8	15 494	6.4	17 850	7.4
1947	8 549	3.5	8 856	3.6	17 405	7.1	19 440	7.9
1948	8 901	3.6	8 856	3.6	17 757	7.2	19 810	8.0
1949	8 414	3.4	8 982	3.6	17 396	7.0	19 450	7.8
1950	8 399	3.4	8 820	3.5	17 219	6.9	19 250	7.7
1951	8 197	3.3	8 694	3.5	16 891	6.8	19 010	7.6
1952	8 115	3.2	9 432	3.8	17 547	7.0	20 140	8.0
1953	8 217	3.3	9 018	3.6	17 235	6.8	19 980	7.9
1954	8 263	3.3	8 856	3.5	17 119	6.8	20 090	8.0
1955	8 652	3.4	8 289	3.3	16 941	6.7	19 960	7.9
1956	9 132	3.6	8 370	3.3	17 502	6.9	20 700	8.2
1957	9 859	3.9	8 163	3.2	18 022	7.1	21 330	8.4
1958	10 480	4.1	7 965	3.1	18 445	7.3	21 650	8.5
1959	10 308	4.0	7 875	3.1	18 183	7.1	21 590	8.5
1960	10 973	4.3	7 551	3.0	18 524	7.3	22 090	8.7
1961	11 253	4.4	7 389	2.9	18 642	7.3	22 340	8.8
1962	11 868	4.6	7 182	2.8	19 050	7.4	23 030	9.0
1963	12 325	4.8	6 777	2.6	19 102	7.4	22 830	8.8
1964	12 791	4.9	6 570	2.5	19 361	7.4	23 610	9.1
1965	14 083	5.4	6 327	2.4	20 410	7.8	24 660	9.4
1966	15 147	5.7	5 958	2.3	21 105	8.0	25 100	9.5
1967	15 448	5.8	6 858	2.6	22 306	8.4	26 360	9.9
1968	15 814	5.9	5 922	2.2	21 736	8.2	25 750	9.7
1969	16 633	6.2	5 391	2.0	22 024	8.2	25 950	9.7

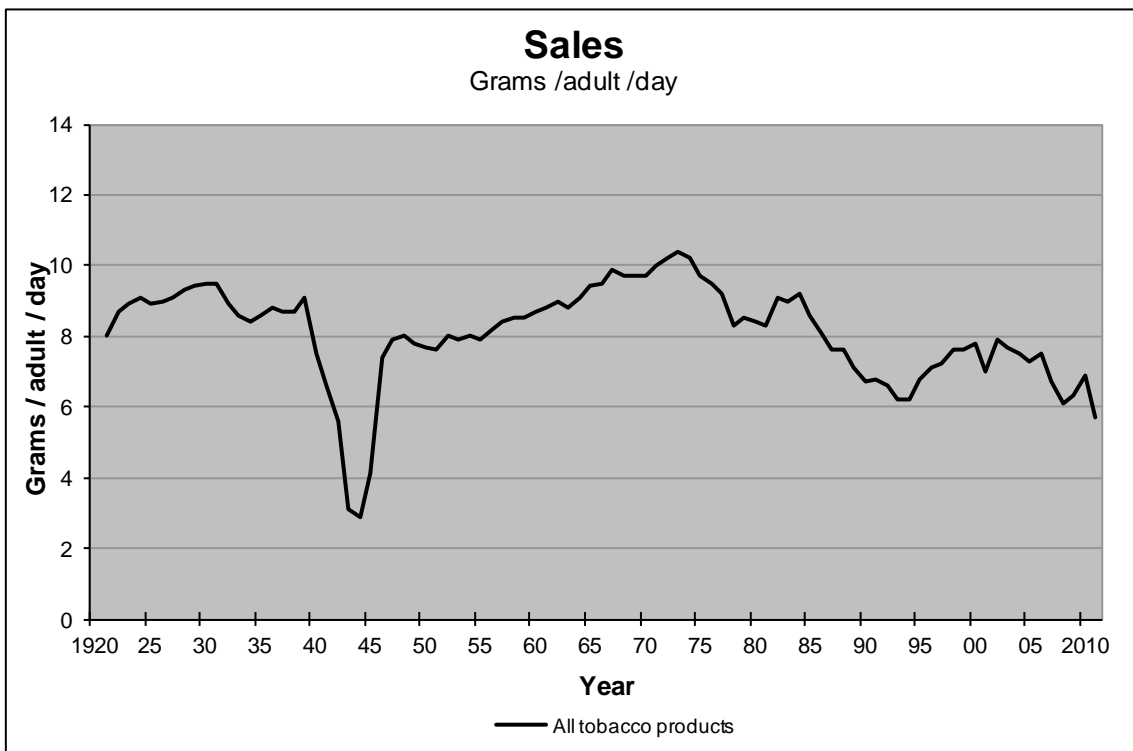
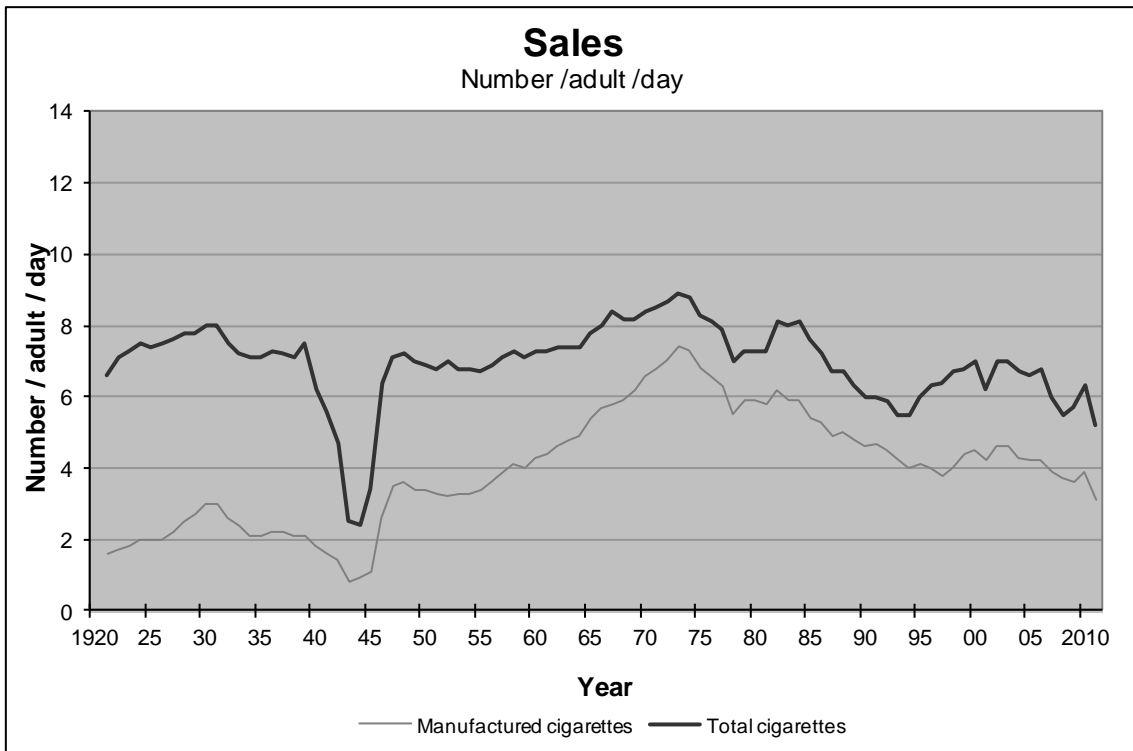
Table 2 (continued)

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
1970	17 632	6.6	4 860	1.8	22 492	8.4	26 170	9.7
1971	18 334	6.8	4 653	1.7	22 987	8.5	27 010	10.0
1972	19 165	7.0	4 410	1.6	23 575	8.7	27 700	10.2
1973	20 236	7.4	4 203	1.5	24 439	8.9	28 460	10.4
1974	20 179	7.3	4 124	1.5	24 304	8.8	28 095	10.2
1975	18 868	6.8	4 134	1.5	23 002	8.3	26 900	9.7
1976	18 370	6.6	4 385	1.6	22 755	8.1	26 654	9.5
1977	17 673	6.3	4 487	1.6	22 159	7.9	25 894	9.2
1978	15 590	5.5	4 301	1.5	19 891	7.0	23 521	8.3
1979	16 878	5.9	4 093	1.4	20 971	7.3	24 300	8.5
1980	16 858	5.9	3 979	1.4	20 836	7.3	24 140	8.4
1981	16 657	5.8	4 312	1.5	20 970	7.3	23 915	8.3
1982	17 927	6.2	5 438	1.9	23 364	8.1	26 319	9.1
1983	17 033	5.9	6 023	2.1	23 056	8.0	26 094	9.0
1984	17 178	5.9	6 436	2.2	23 614	8.1	26 646	9.2
1985	15 897	5.4	6 341	2.2	22 238	7.6	25 208	8.6
1986	15 485	5.3	5 783	2.0	21 268	7.2	23 931	8.1
1987	14 507	4.9	5 262	1.8	19 769	6.7	22 332	7.6
1988	14 903	5.0	5 026	1.7	19 930	6.7	22 408	7.6
1989	14 184	4.8	4 572	1.5	18 756	6.3	21 084	7.1
1990	13 687	4.6	4 121	1.4	17 808	6.0	20 064	6.7
1991	13 966	4.7	4 066	1.4	18 032	6.0	20 178	6.8
1992	13 543	4.5	4 302	1.4	17 845	5.9	19 885	6.6
1993	12 556	4.2	4 100	1.4	16 656	5.5	18 587	6.2
1994	12 085	4.0	4 446	1.5	16 531	5.5	18 643	6.2
1995	12 373	4.1	5 905	1.9	18 278	6.0	20 536	6.8
1996	12 270	4.0	6 947	2.3	19 217	6.3	21 543	7.1
1997	11 576	3.8	7 800	2.6	19 376	6.4	21 842	7.2
1998	12 295	4.0	8 358	2.7	20 653	6.7	23 156	7.6
1999	13 448	4.4	7 395	2.4	20 843	6.8	23 353	7.6
2000	13 732	4.5	7 844	2.5	21 576	7.0	24 117	7.8
2001	13 030	4.2	6 315	2.0	19 345	6.2	21 565	7.0
2002	14 314	4.6	7 575	2.4	21 889	7.0	24 492	7.9
2003	14 287	4.6	7 494	2.4	21 781	7.0	24 092	7.7
2004	13 634	4.3	7 586	2.4	21 220	6.7	23 609	7.5
2005	13 385	4.2	7 378	2.3	20 763	6.6	23 101	7.3
2006	13 385	4.2	8 251	2.6	21 636	6.8	24 073	7.5
2007	12 493	3.9	6 730	2.1	19 223	6.0	21 489	6.7
2008 ¹	11 916	3.7	5 802	1.8	17 718	5.5	19 729	6.1
2009 ¹	11 616	3.6	6 793	2.1	18 409	5.7	20 323	6.3
2010 ¹	12 550	3.9	7 722	2.4	20 272	6.3	22 250	6.9
2011 ¹	9 910	3.1	6 750	2.1	16 660	5.2	18 278	5.7

¹ Per adult data based on 2007 population.

Source: Manufactured cigarettes and all tobacco products, Tables 1.1 and 1.2. Hand-rolled cigarettes, see *Notes on sources of sales data: Estimates of numbers of hand-rolled cigarettes*, p. 42. Population, see *Population, Methods* p. 14.

Figure 2 Sales of (i) manufactured and total¹ cigarettes and (ii) all tobacco products. Average per adult (aged 15 years and over) per day



¹ Includes estimated hand-rolled cigarette consumption.
Source: Table 2.

Table 3 Manufactured cigarettes: percentage of total sales as filter cigarettes; sales-weighted average machine yield per cigarette of tar (SWAT)

Year	Filter %	SWAT mg/cig
1960	30.0	
1961	35.0	
1962	38.0	
1963	40.0	
1964	42.0	
1965	50.0	
1966	51.0	
1967	52.0	
1968	56.0	
1969	58.2	
1970	61.8	
1971	64.0	
1972	66.9	
1973	68.0	23.2
1974	72.2	
1975	75.1	
1976	77.2	
1977	77.9	
1978	76.6	
1979	80.3	
1980	81.6	16.5
1981		
1982	84.0	
1983	85.0	
1984		
1985		15.0
1986		
1987		
1988		
1989		
1990		
1991	90.0	

Source: see *Notes on sources of sales data: Plain/Filter cigarette sales*, p. 42 and *Tar and nicotine machine yields of cigarettes*, p. 42.

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Table 4M Prevalence of smoking, males: selected surveys by age
(continues on p. 20)

Year	Source	Product	Frequency	Age Groups																	All ages			
				12	13	14	15	16	17	18	19	20	25	30	35	40	45	50	55	60		65	70	75
55	21	A	A	5	54				73	77	79	79	83	79	84	83	81	81	78	75	79			
60	22	U	R	48																				
63	6	UC	U	66																				
63	6	A	U	80																				
63	7	A	U						75	69				70			68				70			
72	2	MC	U	51																				
72	22	U	R	45																				
73	4	A	U	40																				
73	5	A	R	1	10	8	24	29	35	35	45	53												
73	11	UC	U	56																				
74	2	MC	U	48																				
74	18	U	U	11	30	50			65															
75	20	U	U	24		44		82																
75	22	U	R	43																				
76	3	A	R	53				56				65			55				58					
76	12	MC	U	49				55	56	52	48	32	20				44							
76	12	A	U	62																				
76	13	A	U	58																				
77	2	MC	U	40																				
77	4	MC	U	48																				
77	14	A	U	59																				
77	15	U	R	61																				
79	22	U	R	42																				
80	1	MC	R	35																				
80	1	TC	R	46				54				40			27				44					
80	1	A	R	51				59				53			41				53					
80	2	MC	U	38																				
80	13	A	U	53																				
80	14	A	U	50																				
80	15	U	R	50																				
81	2	MC	U	37																				
82	17	U	R	53																				
82	19	U	U	25																				
83	17	U	R	47																				
84	2	MC	U	35																				
84	10	UC	A					44				41	45						43					
84	10	A	A					52				50	51						51					
84	17	U	R	47																				
84	17*	U	R	45				50				48			42				47					
85	17	U	R	45																				

Table 4F Prevalence of smoking, females: selected surveys by age
(continues on p. 21)

Year	Source	Product	Frequency	Age Groups																	All ages	
				12	13	14	15	16	17	18	19	20	25	30	35	40	45	50	55	60		65
55	21	A	A	5			15			26	31	32	29	27	21	18	15	12	8	6	3	19
60	22	U	R																			
63	6	UC	U														15					
63	6	A	U														15					
63	7	A	U							36		26					22			17		23
72	2	MC	U														24					
72	22	U	R																			
73	4	A	U				37															
73	5	A	R	1	5	10	16	26	28	34	33	29										
73	11	UC	U														8					
74	2	MC	U														26					
74	18	U	U																			
75	20	U	U	17		45		67														
75	22	U	R																			
76	3	A	R				34				29					*				3		22
76	12	MC	U				39	48	43	25	24	13								5		25
76	12	A	U								26											
76	13	A	U								22											
77	2	MC	U								21											
77	4	MC	U				40															
77	14	A	U																			
77	15	U	R																			
79	22	U	R																			
80	1	MC	R								21											
80	1	TC	R								21											
80	1	A	R				33			29			10							2		21
80	2	MC	U								21											
80	13	A	U								21											
80	14	A	U																			
80	15	U	R																			
81	2	MC	U								22											
82	17	U	R								28											
82	19	U	U					32														
83	17	U	R								28											
84	2	MC	U								21											
84	10	UC	A								26	16	9									18
84	10	A	A								26	16	8									18
84	17	U	R								26											
84	17*	U	R					39		38			20							9		27
85	17	U	R								27											

Table 4M (continued from p. 17, continues on p. 22)
Prevalence of smoking, males

Year	Source	Product	Frequency	Age Groups																	All ages					
				12	13	14	15	16	17	18	19	20	25	30	35	40	45	50	55	60		65	70	75	80+	
86	2	MC	U	32																						
86	2	U	U	16			40		47		53		52		51		49		38							
86	8	UC	A							44		47		42		39							43			
86	8	A	A							50		56		51		47							52			
86	9	UC	A							55		53		53		44							51			
86	9	A	A							58		58		57		53							56			
86	17	U	R	46																						
86	25	U	*	4		17																				
86	25	U	R	7		22																				
86	25	U	A	12		27																				
87	17	U	R	31					46					42					36		42					
87	30	UC	U	36					39					40					15		32					
87	30	A	U	36					40					44					29		37					
88	9	UC	A							50		53		38		38							44			
88	9	A	A							52		61		44		40							49			
88	17	U	R	42																						
88	30	TC	U	40					51					48					34		43					
88	30	A	U	40					54					56					41		48					
88	30	TC	U	40					52					53					31		44					
88	30	A	U	40					55					59					41		49					
89	8	UC	A							41		47		44		34							42			
89	8	A	A							46		54		53		41							51			
89	17	U	R	39																						
89	30	TC	U	36					52					39					32		40					
89	30	A	U	37					53					42					38		43					
89	30	TC	U	32					47					33					25		34					
89	30	A	U	35					53					43					35		42					
90	17	U	R	38																						
90	23	U	*	4		11																				
90	23	U	R	7		15																				
90	23	U	A	12		20																				
90	27	U	*	5		9																				
90	27	U	A	2		8																				
90	29	U	*	0	3		10		25																	
90	29	U	R	1	6		15		30																	
90	30	MC	U	23					36					30					12		25					
90	30	TC	U	37					45					43					30		39					
90	30	A	U	37					48					50					35		43					
91	8	UC	R							43		48		41		37							43			
91	8	A	A							44		49		40		37							43			
91	9	UC	R							49		53		47		42							48			
91	9	UC	A							51		55		47		42							49			
91	9	A	A							51		55		47		42							49			
91	17	U	R	33																						
91	30	MC	U	33					41					30					14		28					
91	30	TC	U	35					46					38					24		35					
91	30	A	U	35					47					45					31		39					

Table 4F (continued from p. 19, continues on p. 23)
Prevalence of smoking, females

Year	Source	Product	Frequency	Age Groups																	All ages							
				12	13	14	15	16	17	18	19	20	25	30	35	40	45	50	55	60		65	70	75	80+			
86	2	MC	U	21																								
86	2	U	U	10			27			40			40			30			20			17			9			
86	8	UC	A								34			35			22			16						25		
86	8	A	A								34			35			22			16						25		
86	9	UC	A								43			26			24			21						24		
86	9	A	A								43			26			24			21						24		
86	17	U	R	26																								
86	25	U	*		3		14																					
86	25	U	R		8		20																					
86	25	U	A		13		25																					
87	17	U	R						35			34			18			6						26				
87	30	UC	U						31			46			22			6						28				
87	30	A	U						31			46			22			6						28				
88	9	UC	A						45			42			22			14						28				
88	9	A	A						45			42			22			14						28				
88	17	U	R	24																								
88	30	TC	U						26			39			26			17						27				
88	30	A	U						26			41			26			17						28				
88	30	TC	U						39			46			24			9						29				
88	30	A	U						39			46			27			9						30				
89	8	UC	A						40			31			25			16						25				
89	8	A	A						40			32			25			16						25				
89	17	U	R	26																								
89	30	TC	U						26			39			27			16						26				
89	30	A	U						28			39			27			16						27				
89	30	TC	U						31			44			26			16						28				
89	30	A	U						32			47			28			18						31				
90	17	U	R	26																								
90	23	U	*		1		13																					
90	23	U	R		5		17																					
90	23	U	A		8		23																					
90	27	U	*			1	8																					
90	27	U	A	0		5																						
90	29	U	*	0	1	8	13																					
90	29	U	R	1	4	13	17																					
90	30	MC	U						23			31			22			13						21				
90	30	TC	U						24			35			25			17						25				
90	30	A	U						24			35			25			17						25				
91	8	UC	R						38			36			27			13						27				
91	8	A	A						40			36			28			13						27				
91	9	UC	R						43			40			27			16						29				
91	9	UC	A						43			40			27			17						30				
91	9	A	A						43			41			27			17						30				
91	17	U	R	24																								
91	30	MC	U						29			30			21			9						21				
91	30	TC	U						31			31			22			11						23				
91	30	A	U						31			31			22			12						23				

Table 4M (continued from p. 20, continues on p. 24)
Prevalence of smoking, males

Year	Source	Product	Frequency	Age Groups																	All ages		
				12	13	14	15	16	17	18	19	20	25	30	35	40	45	50	55	60		65	70
92	17	U	R	31																			
92	26	U	R	33				42			58			35				21			33		
92	30	MC	U	32				36			27			18				27					
92	30	TC	U	35				41			34			28				34					
92	30	A	U	37				42			42			34				39					
93	17	U	R	31																			
94	17	U	R	33																			
94	24	U	R		10		32																
94	25	U	R		6		23																
94	29	U	*	1	4		21		32														
94	29	U	R	3	8		30		37														
94	30	MC	U	38				29			34			17				28					
94	30	TC	U	43				36			42			23				35					
94	30	A	U	43				41			46			33				40					
94	31	MC	U	37				30			35			17				29					
94	31	TC	U	43				37			44			24				36					
94	31	A	U	43				41			47			33				41					
95	17	U	R	25				35			42			32			35				15	32	
95	17	U	A	29				44			46			35			38				18	36	
95	31	MC	U	38				37			27			18				29					
95	31	TC	U	43				45			40			26				38					
95	31	A	U	43				48			48			32				42					
96	17	U	R	34																			
96	29	U	*	1	6		23		35														
96	29	U	R	2	11		29		40														
97	17	U	R	31																			
97	24	A	*		6		21																
97	24	A	R		10		28																
97	28	UC	R	29																			
97	28	A	R	31																			
97	28	A	A	38				35			43			41		33		29		21		37	
98	17	U	R	30																			
98	29	U	*	1	6		21		31														
98	29	U	R	2	10		28		38														
98	33	UC	R	36				33			30		31		25		21		8		8		28
98	33	A	R	36				34			32		37		29		24		13		12		31
98	33	A	A	45				41			38		42		35		27		16		12		37
99	17	U	R	31																			
99	31	U	U	53				53			48			36				46					
99	33	UC	R	34				30			31		31		26		15		12		0		27
99	33	A	R	34				31			33		37		30		19		15		9		30
99	33	A	A	44				40			40		43		37		21		18		13		37
00	17	U	R	36																			
00	29	U	*	1	5		19		31														
00	29	U	R	2	8		25		37														
00	33	UC	R	36				31			32		30		23		14		9		0		27
00	33	A	R	36				32			33		35		26		17		12		4		29
00	33	A	A	43				41			40		41		32		21		14		15		36

Table 4F (continued from p. 21, continues on p. 27)
Prevalence of smoking, females

Year	Source	Product	Frequency	Age Groups																	All ages			
				12	13	14	15	16	17	18	19	20	25	30	35	40	45	50	55	60		65	70	75
92	17	U	R	21																				
92	26	U	R	30				35			26			22				6			24			
92	30	MC	U	23				32			26			12				23						
92	30	TC	U	26				35			28			12				24						
92	30	A	U	26				35			28			13				25						
93	17	U	R	19																				
94	17	U	R	19																				
94	24	U	R		8		18																	
94	25	U	R		8		21																	
94	29	U	*	0	3		12		17															
94	29	U	R	0	7		18		23															
94	30	MC	U	34				33			26			10				24						
94	30	TC	U	36				33			30			12				26						
94	30	A	U	36				33			33			12				26						
94	31	MC	U	35				32			24			10				23						
94	31	TC	U	36				33			29			13				26						
94	31	A	U	36				33			31			13				26						
95	17	U	R	11			35			35			26			22				6		24		
95	17	U	A	11			37			37			28			24				8		26		
95	31	MC	U	31				38			40			10				28						
95	31	TC	U	31				40			48			12				31						
95	31	A	U	31				40			48			12				31						
96	17	U	R	27																				
96	29	U	*	0	5		17		26															
96	29	U	R	1	10		25		33															
97	17	U	R	22																				
97	24	A	*		4		20																	
97	24	A	R		8		28																	
97	28	UC	R	20																				
97	28	A	R	20																				
97	28	A	A	26				27			33			25		15		8		4		24		
98	17	U	R	23																				
98	29	U	*	0	5		20		30															
98	29	U	R	1	9		26		36															
98	33	UC	R	21				22			29			26		14		12		3		0		20
98	33	A	R	21				22			29			27		14		12		3		0		20
98	33	A	A	26				28			33			31		16		13		4		2		23
99	17	U	R	26																				
99	31	U	U	38				40			31			13				28						
99	33	UC	R	20				21			28			26		17		14		4		0		20
99	33	A	R	20				21			28			26		17		14		4		0		20
99	33	A	A	26				28			32			32		20		14		6		0		24
00	17	U	R	26																				
00	29	U	*	0	4		15		29															
00	29	U	R	2	7		21		37															
00	33	UC	R	21				20			28			26		16		10		4		0		19
00	33	A	R	21				20			28			27		17		10		4		0		19
00	33	A	A	27				27			32			32		19		11		5		2		23

Table 4M (continued from p.22, continues on p.26)
Prevalence of smoking, males

Year	Source	Product	Frequency	Age Groups																	All ages		
				12	13	14	15	16	17	18	19	20	25	30	35	40	45	50	55	60		65	70
01	17	U	R	34																			
01	28	UC	R	26																			
01	28	A	R	22			36		32		36		35		20		18		13		7		28
01	28	A	A	35				38			41		41		25		22		14			34	
01	33	UC	R	36				27			33		28		25		14		10		10		27
01	33	A	R	36				27			35		32		28		17		13		12		29
01	33	A	A	43				34			39		36		33		22		17		15		34
02	17	U	R	33																			
02	24	A	*		5		18																
02	24	A	R		8		23																
02	25	A	*		3		16																
02	25	A	R		5		22																
02	29	U	*	0	5		19		30												15		
02	29	U	R	1	9		24		36														
02	31	M	R	31				38			30		11				27						
02	31	T	C	33				39			38		20				32						
02	31	A	R	33				39			42		21				34						
02	31	M	C	36				43			33		13				30						
02	31	T	C	38				43			41		22				35						
02	31	A	U	38				45			45		25				38						
03	17	U	R	30																			
03	32	UC	*	23																			
03	32	UC	A	32																			
04	17	U	R	26																			
04	28	A	R	28																			
04	28	A	A	31				38			37		38		30		21		16		33		
05	17	U	R	23																			
05	31	M	R	24				17			24		6				17						
05	31	T	C	26				24			30		13				22						
05	31	A	R	26				25			32		17				24						
05	31	M	C	32				22			31		7				21						
05	31	T	C	35				32			37		15				28						
05	31	A	U	35				36			40		19				32						
06	17	U	R	29																			
06	24	A	*		2		12																
06	24	A	R		4		18																
06	25	A	*		4		11																
06	25	A	R		6		14																
06	29	U	*	0	3		11		25												11		
06	29	U	R	0	5		16		30														
06	29	UC	A	2	7		23		39														
06	31	M	R	19				19			14		9				15						
06	31	T	C	22				26			25		15				22						
06	31	A	R	22				26			28		19				24						
06	31	M	C	23				28			18		11				19						
06	31	T	C	26				35			30		17				27						
06	31	A	U	27				36			34		23				30						

Table 4F (continued from p.23, continues on p. 27)
Prevalence of smoking, females

Year	Source	Product	Frequency	Age Groups																	All ages	
				12	13	14	15	16	17	18	19	20	25	30	35	40	45	50	55	60		65
01	17	U	R	22																		
01	28	UC	R	20																		
01	28	A	R	18				31	25	29	24	16	7	3	7					20		
01	28	A	A	30				30	34	28	18	7	5					24				
01	33	UC	R	25				20	27	27	17	12	4	0					20			
01	33	A	R	25				20	27	27	18	12	4	0					20			
01	33	A	A	31				24	31	33	19	13	7	0					24			
02	17	U	R	25																		
02	24	A	*	3	19																	
02	24	A	R	7	23																	
02	25	A	*	3	20																	
02	25	A	R	5	24																	
02	29	U	*	0	3	18	27												12			
02	29	U	R	1	7	23	32															
02	31	MC	R	27				23	22	10								18				
02	31	TC	R	30				26	26	14								22				
02	31	A	R	30				26	26	14								22				
02	31	MC	U	33				28	24	12								22				
02	31	TC	U	35				32	29	17								26				
02	31	A	U	36				32	29	17								26				
03	17	U	R	25																		
03	32	UC	*	23																		
03	32	UC	A	33																		
04	17	U	R	15																		
04	28	A	R	20																		
04	28	A	A	23				29	31	30	15	12	5					23				
05	17	U	R	16																		
05	31	MC	R	19				17	23	6								15				
05	31	TC	R	21				21	29	9								19				
05	31	A	R	21				21	29	9								19				
05	31	MC	U	31				19	31	7								19				
05	31	TC	U	34				23	39	10								24				
05	31	A	U	34				23	39	10								24				
06	17	U	R	16																		
06	24	A	*	2	12																	
06	24	A	R	4	17																	
06	25	A	*	3	11																	
06	25	A	R	5	17																	
06	29	U	*	0	2	10	19												7			
06	29	U	R	0	4	15	24															
06	29	UC	A	1	6	22	29															
06	31	MC	R	15				20	18	12								16				
06	31	TC	R	15				21	25	14								19				
06	31	A	R	15				21	26	14								19				
06	31	MC	U	20				24	20	14								19				
06	31	TC	U	20				25	27	16								22				
06	31	A	U	20				25	28	16								22				

Table 4M (continued from p. 24)
Prevalence of smoking, males

Year	Source	Product	Frequency	Age Groups																	All ages		
				12	13	14	15	16	17	18	19	20	25	30	35	40	45	50	55	60		65	70
07	17	U	R	25																			
07	32	UC	*				14																
07	32	UC	A				24																
08	17	U	R	24																			
08	28	A	R				21		31		28		28		20		17		7		24		
08	28	A	A				29		34		33		35		24		19		10		29		
09	17	U	R	23																			
09	31	MC	R				33		25		22		12								21		
09	31	TC	R				46		36		33		22								32		
09	31	MC	A				46		34		31		17								30		
09	31	TC	A				46		36		33		22								32		
09	31	A	A				46		37		36		26								35		
10	17	U	R	22																			
10	24	A	*		3		11																
10	24	A	R		4		15																
10	25	A	*		3		12																
10	25	A	R		6		16																
10	29	U	*	1	3		12		19												10		
10	29	UC	A	2	7		23		34														
10	32	UC	*				16																
10	32	UC	A				26																
11	17	U	R	24																			

Source: see *Notes on sources of survey data*, p. 42
 Product: MC = manufactured cigarettes
 TC = total cigarettes (including hand-rolled)
 UC = cigarettes (type unspecified)
 A = all products

Frequency: A = all smokers (including occasional)
 R = regular or daily smokers
 U = unspecified
 * = refer to *Notes on sources of survey data*, p. 42
 All ages: relates to ages reported; as given in original source

Table 4F (continued from p. 25)
Prevalence of smoking, females

Year	Source	Product	Frequency	Age Groups																	All ages	
				12	13	14	15	16	17	18	19	20	25	30	35	40	45	50	55	60		65
07	17	U	R	19																		
07	32	UC	*	13																		
07	32	UC	A	22																		
08	17	U	R	16																		
08	28	A	R	17					18		20		28		16		10		3		18	
08	28	A	A	21					23		24		31		19		11		1		21	
09	17	U	R	17																		
09	31	MC	R	32					24		25		10						20			
09	31	TC	R	41					29		32		14						26			
09	31	MC	A	42					28		29		13						24			
09	31	TC	A	42					29		32		14						26			
09	31	A	A	42					31		33		14						27			
10	17	U	R	13																		
10	24	A	*		2	11																
10	24	A	R		4	16																
10	25	A	*		1	11																
10	25	A	R		4	17																
10	29	U	*	0	2	9		12												7		
10	29	UC	A	1	7	22		24														
10	32	UC	*	14																		
10	32	UC	A	25																		
11	17	U	R	16																		

Source: see *Notes on sources of survey data*, p. 42
 Product: MC = manufactured cigarettes
 TC = total cigarettes (including hand-rolled)
 UC = cigarettes (type unspecified)
 A = all products

Frequency: A = all smokers (including occasional)
 R = regular or daily smokers
 U = unspecified
 * = refer to *Notes on sources of survey data*, p. 42
 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

Year	Source	Product	Estimated	Age Groups																	All ages	
				12	13	14	15	16	17	18	19	20	25	30	35	40	45	50	55	60		65
80	1	MC						17				20				20				19		19
80	1	TC						19				20				18				17		19
84	10	UC										22		22		20						22
86	8	UC										20		23		23			19			22
86	9	UC										26		22		23			18			21
87	30	UC E						18				16		14				16				16
88	8	UC										21		23		24		18				22
88	9	UC										20		24		25		21				23
88	30	TC E						17				21		23				15				20
89	30	TC E						14				17		23				18				18
90	30	TC E						13				20		19				17				18
91	8	UC										19		22		24		20				22
91	9	UC										21		23		23		20				22
91	30	TC E						14				20		23				15				18
92	30	TC E						14				19		19				17				17
94	30	TC E						14				18		22				21				19
94	31	TC E						14				18		22				20				18
95	31	TC E						14				20		21				15				18
97	24	UC		1.0		3.0																
97	28	UC E*												17								
98	33	UC E*						13				17		19		21		20		19	11	10
99	33	UC E*						13				17		19		20		20		21	14	0.0
00	33	UC E*						13				18		20		20		21		19	18	0.0
01	28	UC E*						12				16		18		17		15		12	11	23
01	33	UC E*						13				18		18		20		21		18	21	10
02	31	TC E						15				19		22				16				19
03	32	UC E						12														
04	28	TC						13				15		20		19		20		14	16	17
05	31	MC E						14				15		18				14				16
05	31	TC E						14				15		17				14				15
06	29	UC E*	0	11		10	11															
06	31	MC E						9.2				12		17				14				13
06	31	TC E						9.4				11		16				13				13
07	32	UC E						9.3														
08	28	TC						15				16		18		17		22		14	16	17
09	31	TC						14				16		17				17				16
10	29	UC E*	0	11		11	12															
10	32	UC E						12														

Source: see *Notes on sources of survey data*, p. 42
 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. 42
 All ages: relates to ages reported; as given in original source

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

Year	Source	Product	Estimated	Age Groups																	All ages			
				12	13	14	15	16	17	18	19	20	25	30	35	40	45	50	55	60		65	70	75
80	1	MC					13					15				16				12			14	
80	1	TC					13					13				17				15			14	
84	10	UC										17			17		13						16	
86	8	UC										18			19		20			17			19	
86	9	UC										19			19		25			16			20	
87	30	UC E					16					14			18				14				15	
88	8	UC										18			19		19		18				19	
88	9	UC										20			20		18		17				18	
88	30	TC E					12					15			19				15				16	
89	30	TC E					12					18			16				12				15	
90	30	TC E					12					16			23				15				16	
91	8	UC										16			19		21		15				19	
91	9	UC										18			18		18		17				18	
91	30	TC E					9.9					17			15				13				14	
92	30	TC E					14					15			16				17				16	
94	30	TC E					14					14			21				18				17	
94	31	TC E					13					15			21				16				16	
95	31	TC E					12					18			19				14				17	
97	24	UC		0.6			2.9																	
97	28	UC E*													15									
98	33	UC E*					13					15			17		18		20		16	14	0.0	16
99	33	UC E*					15					16			18		17		19		16	14	0.0	17
00	33	UC E*					13					16			17		16		19		14	18	0.0	16
01	28	UC E*					12					14			14		16		14		13	12	0.0	14
01	33	UC E*					13					16			17		16		16		16	19	0.0	16
02	31	TC E					13					16			17				14					15
03	32	UC E					11																	
04	28	TC					13					15			18		19		17		16	13		17
05	31	MC E					7.8					13			14				13					12
05	31	TC E					8.8					13			15				13					13
06	29	UC E*	0	6			10					10												
06	31	MC E					8.6					15			17				17					15
06	31	TC E					8.6					15			17				17					16
07	32	UC E					8.8																	
08	28	TC					11					14			15		18		15		14	8.5		15
09	31	TC					11					16			18				13					15
10	29	UC E*	0	8			10					10												
10	32	UC E					9.8																	

Source: see *Notes on sources of survey data*, p. 42
 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. 42
 All ages: relates to ages reported; as given in original source

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

Year	Source	Product	Age Groups																All ages	% Total sales				
			12	13	14	15	16	17	18	19	20	25	30	35	40	45	50	55			60	65	70	75
80	1	TC				8.6						11			7.2				4.5			8.3	74%T	
80	16	MC													8.4								--	
84	10	UC										9.5		9.2		8.9						9.2	**	
86	8	UC									8.8		11		9.6		7.3					9.4	**	
86	9	UC									14		12		12		7.8					11	**	
87	30	UC*				6.6					6.4		5.8				2.4					5.1	66%T	
88	8	UC									8.5		11		10		6.2					9.4	**	
88	9	UC									9.9		13		9.3		7.9					10	**	
88	30	TC*				6.7					11		11				5.2					8.5	92%T	
89	30	TC*				5.0					8.7		8.8				5.7					7.2	87%T	
90	30	TC*				5.0					8.9		8.1				5.1					6.9	91%T	
91	8	UC									8.0		9.8		9.2		6.7					8.8	**	
91	9	UC									10		12		9.6		7.8					10	**	
91	30	TC*				4.8					9.0		8.6				3.5					6.4	79%T	
92	30	TC*				4.9					7.7		6.3				4.8					6.0	81%T	
94	30	TC*				6.1					6.7		9.2				4.9					6.6	99%T	
94	31	TC*				6.1					6.6		9.4				4.6					6.6	97%T	
95	31	TC*				6.0					8.8		8.6				3.8					6.8	99%T	
97	24	UC		0.1		0.8																	**	
97	28	UC*											5.0										63%T	
98	33	UC				4.8					5.6		5.8		6.5		4.9		3.9		0.8	0.8	5.1	61%T
99	33	UC				4.5					5.2		5.9		6.3		5.3		3.0		1.6	0.0	5.0	60%T
00	33	UC				4.8					5.6		6.3		6.0		4.7		2.7		1.7	0.0	5.0	57%T
01	28	UC*				3.4					5.3		6.4		5.9		3.0		2.1		1.4	1.7	4.4	57%T
01	33	UC				4.7					4.7		6.1		5.6		5.1		2.5		2.0	1.0	4.8	63%T
02	31	TC				4.9					7.5		8.2				3.2						6.0	66%T
03	32	UC				2.8																	**	
04	28	TC*											4.9										60%T	
05	31	MC				3.4					2.5		4.4				0.8						2.6	52%M
05	31	TC				3.6					3.5		5.1				1.8						3.4	45%T
06	29	UC*	0.0	0.3		1.1		2.8															**	
06	31	MC				1.8					2.2		2.4				1.3						1.9	52%M
06	31	TC				2.1					3.0		4.1				2.0						2.8	43%T
07	32	UC				1.3																	**	
08	28	TC*				3.0					4.8		5.1		4.7		4.3		2.4		1.1		4.0	59%T
09	31	TC				6.6					5.7		5.8				3.9						5.3	80%T
10	29	UC*	0.0	0.3		1.3		2.2															**	
10	32	UC				1.9																	**	

Source: *Notes on sources of survey data*, p. 42
 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. 42
 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

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

Year	Source	Product	Age Groups																	All ages	% Total sales					
			12	13	14	15	16	17	18	19	20	25	30	35	40	45	50	55	60			65	70	75	80+	
80	1	TC*								4.2															2.8	74%T
80	16	MC																								--
84	10	UC												4.5	2.8		1.2								3.0	**
86	8	UC												6.1	6.6	4.3	2.6								4.8	**
86	9	UC												8.0	4.7	5.8	3.3								4.7	**
87	30	UC*								5.1				6.5	3.8					0.8					4.2	66%T
88	8	UC												6.9	5.7	4.8	2.9								4.6	**
88	9	UC												8.9	8.4	3.8	2.3								5.2	**
88	30	TC*								3.3				6.0	4.9					2.4					4.3	92%T
89	30	TC*								3.2				6.9	4.2					1.9					3.9	87%T
90	30	TC*								2.9				5.5	5.7					2.6					4.0	91%T
91	8	UC												6.2	6.9	5.7	1.9								5.2	**
91	9	UC												8.0	7.3	4.8	2.8								5.2	**
91	30	TC*								3.0				5.1	3.2					1.5					3.2	79%T
92	30	TC*								3.5				5.3	4.5					2.1					3.8	81%T
94	30	TC*								5.2				4.8	6.4					2.2					4.3	99%T
94	31	TC*								4.9				4.8	6.1					2.0					4.1	97%T
95	31	TC*								3.7				7.4	9.1					1.6					5.1	99%T
97	24	UC		0.0						0.8																**
97	28	UC*																								63%T
98	33	UC								2.8				3.2	5.0	4.6	2.8	1.9	0.5	0.0				3.2	61%T	
99	33	UC								3.0				3.3	5.0	4.4	3.2	2.2	0.5	0.0				3.3	60%T	
00	33	UC								2.7				3.2	4.8	4.3	3.0	1.4	0.7	0.0				3.1	57%T	
01	28	UC*								3.0				3.6	4.1	3.9	2.4	0.9	0.3	0.0				2.9	57%T	
01	33	UC								3.4				3.2	4.6	4.5	2.7	1.9	0.8	0.0				3.2	63%T	
02	31	TC								4.0				4.3	4.5					1.9					3.4	66%T
03	32	UC								2.4																**
04	28	TC*																								60%T
05	31	MC								1.5				2.2	3.1					0.8					1.8	52%M
05	31	TC								1.8				2.9	4.3					1.2					2.5	45%T
06	29	UC*	0.0	0.1						1.0	2.0															**
06	31	MC								1.3				3.0	3.1					2.1					2.4	52%M
06	31	TC								1.3				3.3	4.3					2.4					2.9	43%T
07	32	UC								1.1																**
08	28	TC*								1.9				2.6	3.1	4.9	2.5	1.3	0.2						2.7	59%T
09	31	TC								4.6				4.6	5.8					1.8					3.9	80%T
10	29	UC*	0.0	0.2						0.9	1.2															**
10	32	UC								1.4																**

Source: *Notes on sources of survey data*, p. 42
 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. 42
 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

Table 7M Number of cigarettes smoked per person per day, sales-adjusted, males: selected surveys¹ by age; with percentage total sales

Year	Source	Product	Age Groups																	All ages	% Total sales						
			12	13	14	15	16	17	18	19	20	25	30	35	40	45	50	55	60			65	70	75	80+		
80	1	TC							12																	11	74%T
80	16	MC																									--
87	30	UC*							10																7.8	66%T	
88	30	TC*							7.3																9.3	92%T	
89	30	TC*							5.8																8.2	87%T	
90	30	TC*							5.4																7.5	91%T	
91	30	TC*							6.1																8.1	79%T	
92	30	TC*							6.1																7.3	81%T	
94	30	TC*							6.1																6.6	99%T	
94	31	TC*							6.3																6.8	97%T	
95	31	TC*							6.0																6.8	99%T	
97	28	UC*																								63%T	
98	33	UC							7.9																8.4	61%T	
99	33	UC							7.5																8.3	60%T	
00	33	UC							8.4																8.7	57%T	
01	28	UC*							6.0																7.8	57%T	
01	33	UC							7.4																7.6	63%T	
02	31	TC							7.3																9.0	66%T	
04	28	TC*																								60%T	
05	31	MC							6.4																5.1	52%M	
05	31	TC							8.0																7.6	45%T	
06	31	MC							3.4																3.7	52%M	
06	31	TC							4.8																6.7	43%T	
08	28	TC*							5.1																6.8	59%T	
09	31	TC							8.3																6.6	80%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. 42
 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. 42
 All ages: relates to ages reported; as given in original source
 % Total sales: Adjustment factor used, estimated % of total sales of M = manufactured or T = total cigarette consumption implied by survey, sexes combined
 -- = adjusted by original author

Table 7F Number of cigarettes smoked per person per day, sales-adjusted, females: selected surveys¹ by age; with percentage total sales

Year	Source	Product	Age Groups																	All ages	% Total sales									
			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+					
80	1	TC*	5.7				5.1				2.3				0.4					3.8	74%T									
80	16	MC	3.6																		--									
87	30	UC*	7.8				9.9				5.9				1.3					6.5	66%T									
88	30	TC*	3.6				6.5				5.4				2.7					4.7	92%T									
89	30	TC*	3.7				7.9				4.8				2.1					4.5	87%T									
90	30	TC*	3.2				6.0				6.2				2.9					4.4	91%T									
91	30	TC*	3.8				6.4				4.1				1.9					4.0	79%T									
92	30	TC*	4.3				6.6				5.6				2.5					4.6	81%T									
94	30	TC*	5.2				4.8				6.5				2.2					4.3	99%T									
94	31	TC*	5.0				4.9				6.2				2.1					4.2	97%T									
95	31	TC*	3.7				7.5				9.2				1.6					5.2	99%T									
97	28	UC*	4.8																		63%T									
98	33	UC	4.6				5.2				8.2				7.6				4.6				3.2		0.8		0.0		5.3	61%T
99	33	UC	5.0				5.5				8.2				7.3				5.3				3.7		0.8		0.0		5.5	60%T
00	33	UC	4.7				5.7				8.5				7.5				5.3				2.4		1.3		0.0		5.4	57%T
01	28	UC*	5.2				6.2				7.1				6.8				4.1				1.5		0.6		0.0		5.0	57%T
01	33	UC	5.4				5.0				7.3				7.1				4.3				3.1		1.2		0.0		5.1	63%T
02	31	TC	6.1				6.4				6.8				2.9					5.2	66%T									
04	28	TC*	5.5																		60%T									
05	31	MC	2.8				4.3				5.9				1.4					3.4	52%M									
05	31	TC	4.1				6.4				9.7				2.6					5.5	45%T									
06	31	MC	2.5				5.7				6.0				4.0					4.7	52%M									
06	31	TC	3.1				7.7				10				5.6					6.8	43%T									
08	28	TC*	3.2				4.3				5.3				8.4				4.2		2.2		0.4		4.6	59%T				
09	31	TC	5.8				5.8				7.3				2.2					4.9	80%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. 42
 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. 42
 All ages: relates to ages reported; as given in original source
 % Total sales: Adjustment factor used, estimated % of total sales of M = manufactured or T = total cigarette consumption implied by survey, sexes combined
 -- = adjusted by original author

Table 8 Estimated¹ prevalence of smoking and estimated¹ 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

Year	Source ²	Product ³	Prevalence ⁴						Number of cigarettes								
			Manufactured cigarettes		Total cigarettes ⁵		All products ⁶		Unadjusted ⁷			Sales-adjusted ⁸					
			M	F	M	F	M	F	Number/ person/day	Total sales %	Manufactured cigarettes number/ person/day		Total cigarettes ⁹ number/ person/day				
						M	F			M	F	M	F	M	F		
1955	21	A					77	20									
1960	22	U					48										
1963	6 7	UC+A A			63	15	75 66	15 23							(12.7	2.4)	
1972	2 22	MC U	51	24			45						(10.4	3.9)			
1973	11	UC			56	8									(16.5	1.9)	
1974	2	MC	48	26									(10.4	4.5)			
1975	22	U					43										
1976	3 12 13	A MC+A A	45	26			58 62 58	22 26 22					(9.1	4.2)			
1977	2	MC	40	21									(8.9	3.8)			
1979	22	U					42										
1980	1 2 13 16	MC+TC+A MC A MC	35 38	21 21	44	21	53 53	19 21	8.4	2.6	74	(8.0	3.9)	11.3	3.5	(8.3	3.7)
									8.4	3.6	--	8.4	3.6				
1981	2	MC	37	22								(8.0	3.8)				
1982	17	U					51	28							(11.3	5.0)	
1983	17	U					46	27							(10.9	5.2)	
1984	2 17	MC U	35	21			46	26				(8.1	3.9)		(11.4	5.1)	
1985	17	U					44	27							(10.3	5.1)	
1986	2 17	MC+U U	32	21			47 45	24 26				(7.0	3.7)		(10.0	4.6)	
1987	17 30	U UC+A			32	24	40 37	23 24	5.1	3.7	66				(9.3	4.3)	
															7.9	5.7	

Table 8 (continued)

Year	Source ²	Product ³	Prevalence ⁴				Number of cigarettes								
			Manufactured cigarettes		Total cigarettes ⁵		All products ⁶		Unadjusted ⁷			Sales-adjusted ⁸			
			M	F	M	F	M	F	Number/ person/day	Total sales %	Manufactured cigarettes number/ person/day	Total cigarettes ⁹ number/ person/day			
						M	F		M	F	M	F			
1988	17	U					41	24						(9.4 4.3)	
	30	TC+A			43	26	48	27	8.5	4.1	92			9.2 4.4	
	30	TC+A			44	27	49	28							
1989	17	U					38	26						(8.3 4.5)	
	30	TC+A			40	26	43	27	7.2	4.0	87			8.2 4.5	
	30	TC+A			35	28	42	30							
1990	17	U					38	26						(7.8 4.3)	
	30	MC+TC+A	25	21	39	25	43	25	6.9	4.1	91			7.6 4.5	
1991	17	U					33	24						(7.7 4.5)	
	30	MC+TC+A	29	20	36	22	40	22	6.6	3.1	79			8.3 3.9	
1992	17	U					31	21						(7.8 4.2)	
	26	U					38	23						(8.1 3.9)	
	30	MC+TC+A	28	22	34	24	39	24	6.0	3.7	81			7.4 4.6	
1993	17	U					31	19						(7.5 3.7)	
1994	17	U					33	19						(7.6 3.5)	
	30	MC+TC+A	28	23	35	25	40	26	6.7	4.3	99			6.7 4.3	
	31	MC+TC+A	28	23	36	25	41	26	6.6	4.1	97			6.8 4.2	
1995	17	U					32	22						(7.8 4.3)	
	17	U					36	24							
	31	MC+TC+A	29	27	38	30	43	30	6.8	5.1	99			6.9 5.2	
1996	17	U					34	27						(7.8 4.9)	
1997	17	U					31	22						(8.2 4.6)	
	28	UC+A			29	20	31	20	5.0	3.0	63			8.0 4.8	
	28	A					36	21							
1998	17	U					30	23						(8.4 5.2)	
	33	UC+A			29	20	32	20	5.1	3.2	61			8.4 5.2	
	33	A					37	23							
1999	17	U					31	26						(8.2 5.5)	
	31	U					46	28							
	33	UC+A			28	19	30	19	5.0	3.3	60			8.2 5.4	
	33	A					37	24							
2000	17	U					36	26						(8.9 5.2)	
	33	UC+A			27	19	29	19	5.0	3.1	57			8.7 5.4	
	33	A					36	23							

Table 8 (continued /2)

Year	Source ²	Product ³	Prevalence ⁴				Number of cigarettes								
			Manufactured cigarettes		Total cigarettes ⁵		All products ⁶		Unadjusted ⁷			Sales-adjusted ⁸			
			M	F	M	F	M	F	Number/ person/day	Total sales %	Manufactured cigarettes number/ person/day	Total cigarettes ⁹ number/ person/day	M	F	
2001	17	U					34	22							(8.3 4.3)
	28	UC+A			26	20	28	20	4.4	2.8	57				7.7 4.8
	28	A					34	23							
	33	UC+A			27	20	29	20	4.8	3.2	63				7.6 5.0
2002	33	A					34	24							
	17	U					33	25							(8.8 5.3)
	31	MC+TC+A	27	18	32	22	34	22	6.0	3.4	66				9.0 5.2
2003	31	<i>MC +TC +A</i>	30	22	35	26	38	26							
	17	U					30	25							(8.4 5.6)
2004	17	U					26	15							(9.3 4.3)
	28	TC+A					28	20	4.9	3.3	60				8.1 5.5
	28	A					32	22							
2005	17	U					23	16							(8.5 4.7)
	31	MC	17	15					2.6	1.8	52	5.1	3.4		
	31	TC+A			22	19	24	19	3.4	2.5	45				7.7 5.5
	31	<i>MC +TC +A</i>	21	19	28	24	31	24							
2006	17	U					29	16							(9.5 4.2)
	31	MC	15	16					1.9	2.4	52	3.6	4.7		
	31	TC+A			21	19	24	19	2.8	2.9	43				6.6 6.9
	31	<i>MC +TC +A</i>	19	19	26	22	30	22							
2007	17	U					25	19							(7.5 4.5)
2008/10	17	U					24	16							(7.2 3.9)
	28	TC+A					24	17	4.0	2.5	59				6.8 4.3
	28	A					28	20							
2009/10	17	U					23	17							(7.2 4.3)
	31	MC+TC	21	20	32	26			5.3	3.9	80				6.6 4.8
	31	MC+TC+A	30	25	32	26	35	27							
2010/10	17	U					22	13							(8.6 4.1)
2011/10	17	U					24	16							(6.8 3.6)

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 version 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 Table 4 in those surveys for which some age-specific data are not available (age groups marked as * in Table 4).

2 See *Notes on sources of survey data*, p. 42.

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.

9 Number of cigarettes classified as UC = cigarettes (type unspecified) has been adjusted to total cigarette sales and included in this column.

10 Calculations based on 2007 population.

Figure 3 Estimated prevalence of smoking of (i) manufactured cigarettes, (ii) total cigarettes and (iii) all tobacco products; by year of survey. Males and females aged 15 years and over

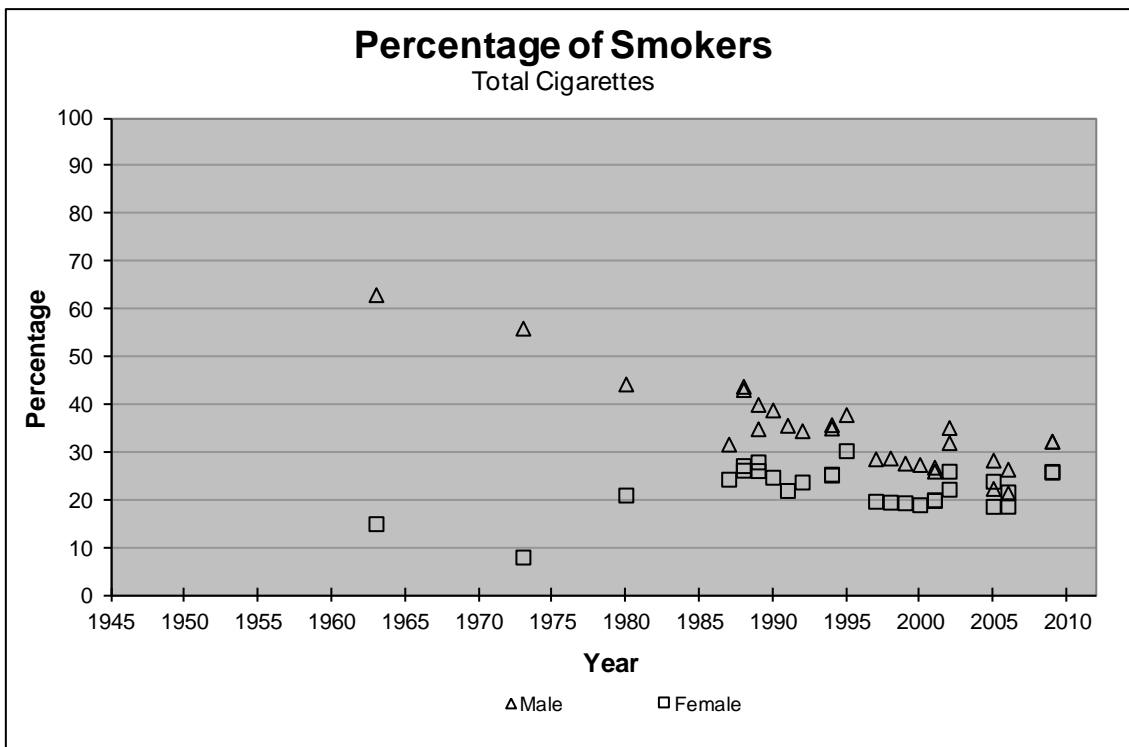
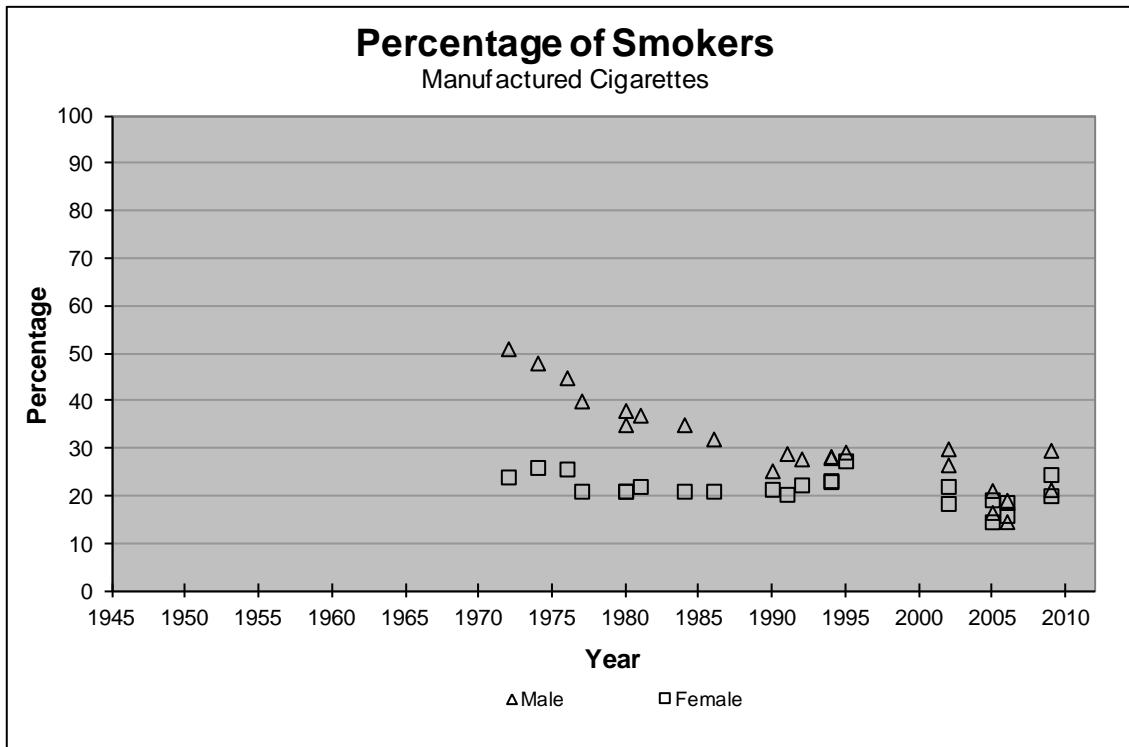
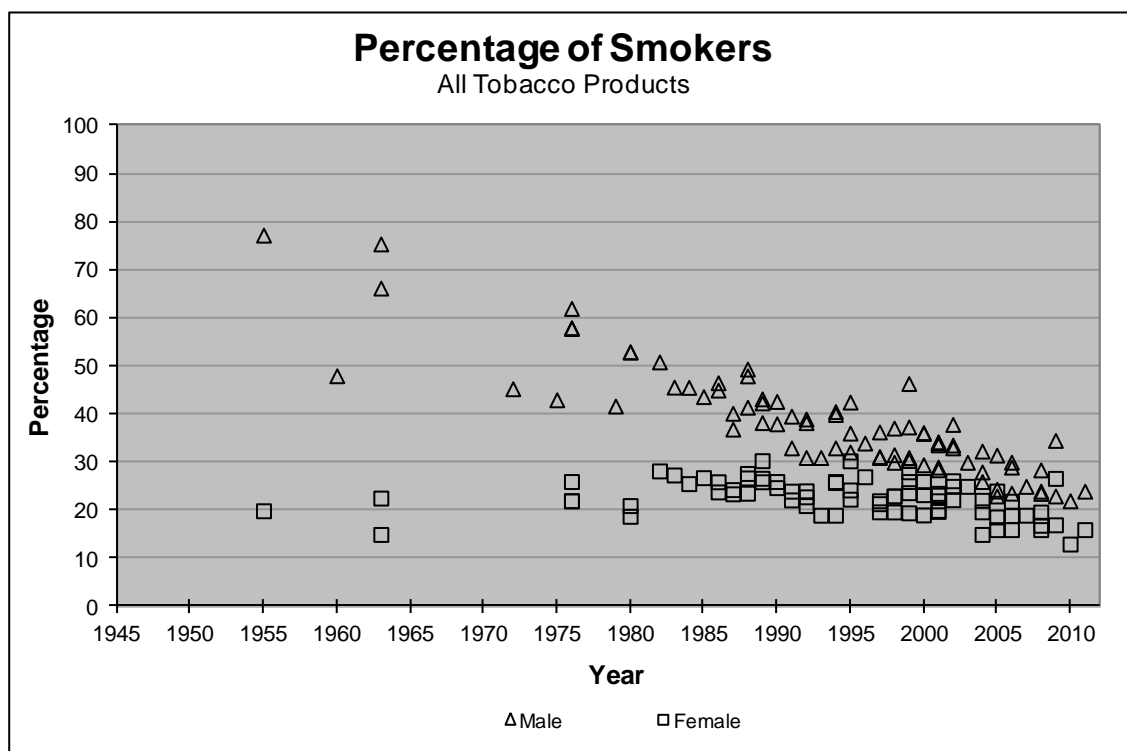
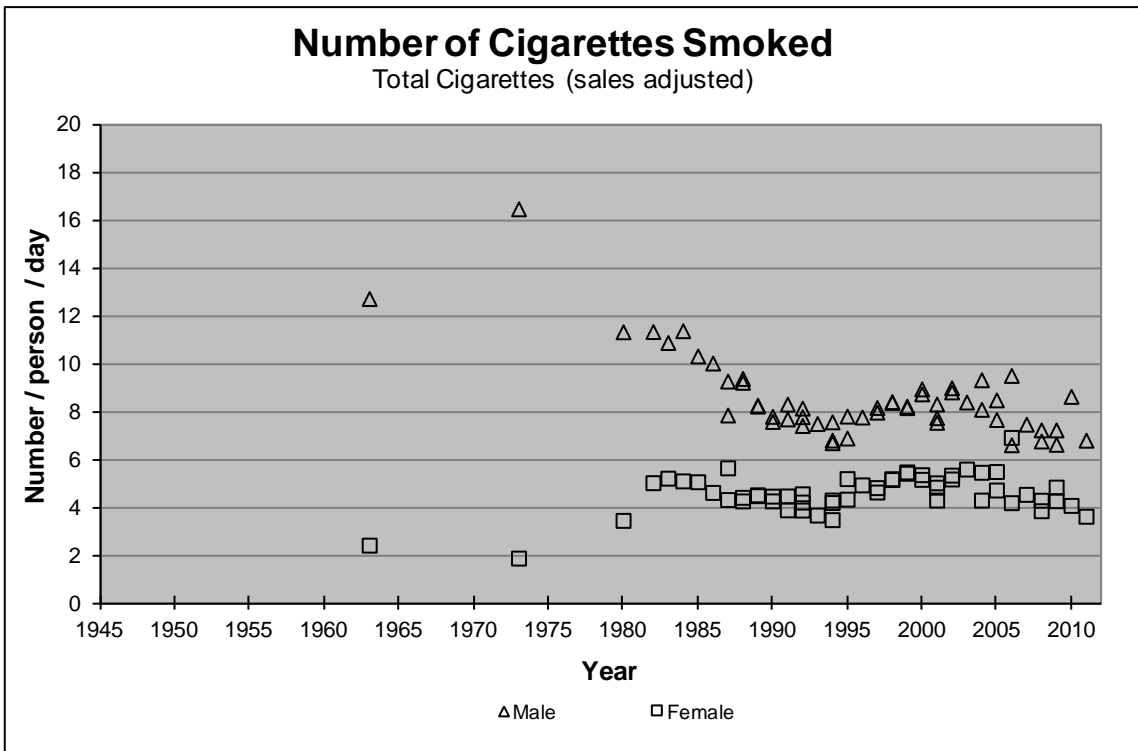
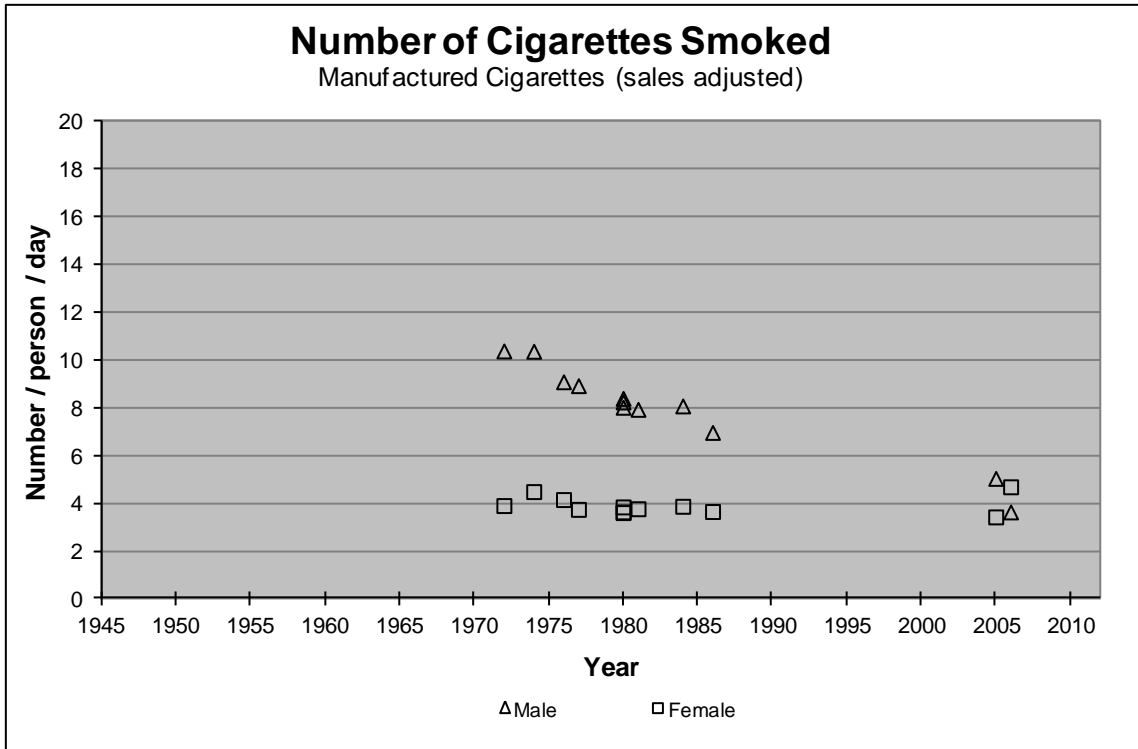


Figure 3 (continued)



Source: Table 8.
See also customisable version of Figure 3 in the Excel workbook.

Figure 4 Estimated number of (i) manufactured cigarettes and (ii) total cigarettes smoked per person per day, sales-adjusted; by year of survey. Males and females aged 15 years and over



Source: Table 8.

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. 49 under *References*.

Some sales data are available only for the Belgium-Luxembourg Economic Union (Union économique belgo-luxembourgeoise, UEBL). This union came into effect in 1922 (Ministère des affaires étrangères (2013)). Only combined trade statistics were provided from then until 1999 when the two countries were required to provide separate trade statistics to the European Commission (Teasdale and Bainbridge (2012)).

Sales data before 1974

RP6 (Lee (1975))

Data by weight, originally given to the nearest 100 000 pounds, have been converted to tonnes and given to the nearest 10 tonnes (100 000 lbs = 45.359 tonnes). Where weight conversion factors have been quoted in RP6, the weights have been re-calculated without rounding and then converted to tonnes.

Notes as given in RP6:

- (a) Details of the numbers of cigarettes, cigars and cigarillos, and of the weight of other manufactured tobacco consumed were provided by the National Institute of Statistics of Belgium, Brussels, for the years up to 1950. The figures for 1951 onwards were obtained from trade sources and confirmed by the Belgian Federation of Tobacco Producers.
- (b) Cigarette consumption in pounds weight has been estimated from the number of cigarettes consumed by using a conversion factor of 2.025 lbs per 1 000. The conversion factors used for cigars and cigarillos were 10.5 lbs per 1 000 and 5.51 lbs per 1 000 respectively.

Although all RP6 data were given as referring to Belgium, the figures for 1951 onwards correspond to those given by Joossens (1989) quoting Fedetab (Fédération belgo-luxembourgeoise des industries du tabac) for sales in UEBL in selected years. See Table 1.3 for UEBL data in subsequent years.

Sales data for 1974 onwards

Belgium (Table 1.2)

1974-1988 : Laes (1990)

The data are based on excise bandelettes and stamps issued and so we believe they relate to sales in Belgium only. Data for cigarettes, cigars and cigarillos were given in numbers and we converted them to weight assuming an average of 1 g per cigarette, 4.8 g per cigar, and 2.5 g per cigarillo (based on values in RP6). Quantities for tobacco reserved for use by growers and for moist chewing tobacco (negligible, to 1970 only) have been omitted.

1989 onwards : Vandercammen (2012)

The original data source is stated to be SPF Finances (Service Public Fédéral Belge, Finances) and the data relate to Belgium only. Data for cigarettes, cigars and cigarillos were given in numbers and we converted them to weight assuming an average of 1 g per cigarette and 2.8 g per cigar/cigarillo, this latter factor being the approximate average weight per item in the preceding five years (and also assuming the cigar and cigarillo weights used for 1974-1988).

UEBL (Table 1.3)

1974-1979 : Merzdorf *et al* (1982)

1980-1988 : Joossens (1989), Verbrugghen (1990)

1989-1996 : Fedetab (1997), Chali (2001)

Each of these sources identifies the original data source as Fedetab.

Compared with the data for Belgium, the UEBL values are around 10% higher for cigarettes in the 1970, rising to 30% higher in the 1990s; 0-6% higher for cigars and cigarillos; and 2-14% higher for other tobacco.

Estimates of cross-border sales and smuggling

Cross-border sales

According to Joossens (1989) there was a substantial rise in cross-border sales from UEBL to the Federal Republic of Germany following substantial price increases there in June 1982. Joossens later (1994) reported that differences in taxation led, in 1993, to 80% of the 4.2 million cigarettes sold in the Grand Duchy of Luxembourg being bought by Belgians, Germans, French and Dutch. This resulted in sales figures for Belgium being lower, and sales figures for UEBL being higher, than consumption. Joossens (1999) estimated that, of the 5 165 million cigarettes sold in Luxembourg in 1997, 85% was cross-border sales to Belgium, France and Germany.

According to Crescenti (1996) much of the fall in UK sales and rise in Belgian sales of hand-rolling tobacco during 1991-1995 was due to Britons travelling to Belgium to buy cheaper tobacco there. Vandercammen (2012) suggested that this buying pattern continued beyond 1995. Joossens (1999) estimated that in 1998 approximately 5 000 tonnes of hand-rolling tobacco bought in Belgium were consumed in the UK.

Since the introduction in 2001 of stricter controls on purchases by UK citizens, there has been a fall in the sales of cigarettes in Belgium (Vandercammen (2012)).

Cigarette Manufacturers of Belgium and Luxembourg (CIMABEL) (2010) stated that, due to cigarette tax rises, an increasing proportion of cigarettes consumed in Belgium were purchased abroad. Based on their pack collection study they estimated that, in 2009, 1 pack in every 7 (14.6%) was bought outside of the country, up from 1 pack in every 8 (12.5%) in 2006, when the study started.

KPMG LLP (2012), reporting industry empty-pack surveys, estimated cross-border sales of cigarettes consumed in Belgium as a proportion of the total market as:

Year	Cross-border sales ¹ (%)
2006	6.6
2007	6.5
2008	7.8
2009	5.3
2010	5.9
2011	6.3

¹ The total market consisted of domestic sales net of outflows, together with cross-border sales, counterfeit and contraband consumed in Belgium.

Smuggling

According to Joossens and Raw (1998), contraband tobacco accounted for approximately 7% of market share in Belgium. Similarly Shafey *et al* (2009), quoting ERC (2007), reported that in 2006 smuggled cigarettes accounted for some 10% of the overall Belgium domestic market. Jha and Chaloupka (2000) estimated that an average of 9 packs of cigarettes per capita were imported into Belgium annually as a result of bootlegging.

Considering hand-rolling tobacco, Joossens (1999) stated that in 1998 some 5 000 tonnes were smuggled from Belgium into the UK.

KPMG LLP (2012), reporting industry empty-pack surveys, estimated use of counterfeit and contraband cigarettes in Belgium as a proportion of the total market as:

Year	Counterfeit and contraband ¹ (%)
2006	6.6
2007	6.2
2008	5.5
2009	9.8
2010	5.9
2011	5.9

¹ The total market consisted of domestic sales net of outflows, together with cross-border sales, counterfeit and contraband consumed in Belgium.

Eriksen *et al* (2012) reported that the Euromonitor International Passport Database estimated, in 2011, that the illicit share of the total cigarette market was 5.0%.

Estimates of numbers of hand-rolled cigarettes

We have estimated hand-rolled cigarette consumption as 90% of ‘other’ tobacco sales, at 1 g per cigarette.

These are the same conversion factors as used by Merzdorf *et al* (1982), although their figures relate to UEBL.

This may underestimate numbers of hand-rolled cigarettes in recent years: KPMG LLP (2012) uses estimates of 0.75 g per cigarette (2003-2008) and 0.5 g per cigarette (2009 onwards).

The Coresta task force on roll-your-own (fine cut) tobacco (1999) reported that, according to the latest available data, 51% of consumer-made cigarettes were made by hand-rolling, with 34% being made by tubing, and 15% by machine-rolling.

Plain/Filter cigarette sales

1960-1980 Maxwell, Jr. (successive years)

1982-1983 Todd (1986)

1991 Bell (1992)

The data probably relate to UEBL: the data given by Maxwell, Jr. (successive years) sometimes describe the same value for a given year as relating to “Belgium” in one edition and to “Belgium and Luxembourg” in another.

Tar and nicotine machine yields of cigarettes

1973-1985 Belgian Association for Smoking Prevention (1989)

The data relate to UEBL. The 1973 and 1980 figures are calculated on the 80 most important brands. The 1985 figure is calculated on the 10 best-selling brands which accounted for 60% of sales.

The tar yield per cigarette was limited by EC directive (Directive 90/239/EEC) to 15 mg by the end of 1992, and to 12 mg by the end of 1997; nicotine yield was limited to 1.5 mg (Harkin *et al* (1997)). From 1 January 2004, limits of 10 mg tar, 1 mg nicotine and 10 mg carbon monoxide per cigarette came into force (ASPECT (Analysis of the Science and Policy for European Control of Tobacco) Consortium (2004)).

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. 49 under *References*.

National results are quoted when available. Some surveys report results for French- and Flemish-speaking regions separately or for only one of these regions. These results are included when no combined results are available. The Flemish-speaking regions are referred to as Flanders and make up the northern parts of

Belgium. The French-speaking regions (Walloon region) make up the southern parts of Belgium. The province of Brussels (Bruxelles) is bilingual.

Source number

1 Joossens (1981) and personal communication

- a. Survey by INUSOP (Institut Interuniversitaire de Sondage d'Opinion Publique, Bruxelles) for CRIOC (Centre de Recherche et d'Information des Organisations de Consommateurs, Bruxelles). Quota sample size 1 130, representative of the Flemish population (excluding Brussels).
- b. For women, calculation of cigarettes per person is based on percentage smokers of any product, since percentage smokers of cigarettes is not given by age. Since cigarette smokers accounted for 20% of 21% total smokers, this is likely to have little effect.

2 Joossens (1987)

- a. Studies conducted by CIM (Centre d'Information des Media). Sample size 10 000.
- b. The percentage of hand-rolled cigarette smokers, with or without other products, was:

Year	Hand-rolled cigarette smokers (%)	
	Males	Females
1972	22	
1981	20	
1986	18	4

3 Joossens (1981)

- a. Programme National de Recherches en sciences sociales, project Soins de Santé Primaires. Sample size 1 745, representative of the Flemish population (excluding Brussels)
- b. Comparable with source 1 as identical questions were used.
- c. Female data for age 45-64 missing owing to apparent misprint in the original report.

4 Merzdorf *et al* (1982), quoting Joossens (1978)

- a. Survey among Flemings.
- b. It is not clear whether these data relate to the same surveys as source 2.

5 Graffar and Decrucq (1976)

- a. Sample size 3 037 young persons. Lowest age group 11-12.
- b. Regular smokers: smoked 1 cigarette, 1 cigar or 1 cigarillo, or 1 pipe at least once a day. 97% of smokers in the sample smoked cigarettes.

6-7 Readers Digest (1963), Joossens (1987)

- a. Surveys conducted in 1963 in several European countries using identical questionnaires. The Belgian survey was conducted by SOBEMAP (Société Belge d'Economie et de Mathématique Appliquées, S.A.). Random sample of about 2 000 people.
- b. Data given as source 6 taken from Readers Digest (1963).
- c. It is also reported that in 1963 prevalence of use of a pipe and of cigars by men was:

Age group	Smoke a pipe	Smoke cigars
21-39	9	26
40+	20	40
All ages	16	35

- d. Data given as source 7 are taken from Joossens (1987). Sample size 2 196. Age-specific data derived by Joossens directly from the data. The reason for the discrepancies between the two sources is unknown.
- e. Joossens (1987) also presents a table showing the percentage of male smokers of cigarettes, pipe and cigars (reproduced below). It is unclear whether these results should be interpreted directly as the prevalence of cigarette (etc.) smoking in the male population, or as the percentage of smokers who smoke cigarettes, in which case the prevalence of cigarette smoking in the male population would be estimated as shown in the final column.

Age group	Percentage of male smokers			Derived prevalence among men of cigarette smoking (possibly invalid)
	cigarettes	pipe	cigar	
21-25	73	8	19	(55)
26-44	63	8	26	(43)
45-64	58	10	33	(41)
65+	37	32	36	(25)
All ages	57	14	30	(40)

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

8-10 Tolonen *et al* (2000), Kuulasmaa *et al* (1998), Wolf *et al* (1998), Molarius *et al* (1999)

- a. Surveys in three regions carried out in three phases, forming part of WHO MONICA Project. In Ghent and Charleroi subjects were interviewed whereas in Luxembourg Province of Belgium the survey used self-administered questionnaires.

Region	Phase	Participation rate (%)		Sample used*		Date
		Males	Females	Males	Females	
8 Ghent	1	80	72	694	648	Feb 1985 - Jun 1987
9 Charleroi	1	69	67	483	562	Mar 1985 - Jul 1987
10 Luxembourg Province	1	57	51	980	953	Jun 1983 - Jan 1985
8 Ghent	2	71	70	597	626	Jan 1988 - Mar 1990
9 Charleroi	2	66	62	525	552	Sep 1987 - Jun 1990
8 Ghent	3	76	74	645	677	Apr 1990 - Apr 1992
9 Charleroi	3	73	70	519	578	Jul 1990 - Feb 1993

- * Ghent and Charleroi 'sample used' includes age 25-64; all other figures are for age 35-64 only.
- b. *All ages* column 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. Results for Ghent and Charleroi for prevalence of cigarette smoking may actually relate to smoking of any product.
- e. 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.

11 Merzdorf *et al* (1982) quoting Vuylsteek *et al* (date unknown)

- a. Survey in Flanders, rural population. Lower age limit 11.

12 Anonymous (1977)

- a. EIU (Economist Intelligence Unit) estimates based on trade interviews.

13 Merzdorf *et al* (1982), quoting personal communication (no other source information given)

- a. Survey in Flanders.

14, 15 Merzdorf *et al* (1982) (quoting Vuylsteek (1979)), Kornitzer *et al* (1985), Vuylsteek *et al* (1985)

- a. Surveys among randomly-selected military recruits in the Flemish- and French-speaking regions. Source 14 reports Flemish-speaking recruits, source 15 reports French-speaking recruits.

Year	Flemish-speaking		French-speaking	
	Sample size	Average age	Sample size	Average age
1977	2 007	18.6	2 024	19.6
1980	2 008	19.0	2 008	20.4

The age range for the 1977 Flemish survey is given as 17-23. That for the 1977 French survey is not available – assumed to also be 17-23. The age range for the 1980 survey is given as (Flemish) 17-28, (French) 17-30 but for each the subjects are predominantly aged 17-23.

16 Todd (1986)

- a. Estimated by Todd from available data.

- 17 Joossens (1987, 1989, 1996), Vandercammen (2012)**
- Annual surveys for CRIOC (Centre de Recherche et d'Information des Organisations de Consommateurs). Sample size around 2 000. Age group 18+ (1982-1989) and 15+ (1990 onwards).
 - Age-specific figures shown against 1984 are averages for five annual surveys, 1982-1986.
 - Regular smokers: (1982-1986) regular smokers, otherwise unspecified, (1987 onwards) daily smokers.
 - Assumed extensions to age distribution for percentage smokers are shown in the extended version of Table 4 in the Excel tables workbook.

- 18 Benjamin (1978), quoting Free University of Brussels**
- Survey carried out in schools by The School of Public Health of the Free University of Brussels. Prevalence for boys is reported. Prevalence believed to be the same among girls, 'except that a reduction in smoking at the end of secondary studies is observed in one category of girls who do not proceed to higher studies'. Lowest age group 11-12.

19 Geizerova and Masironi (1988)

- No original source.

20 Masironi and Roy (1982)

- No original source.

21 Tuyns (1956)

- Survey of an urban community close to Brussels. Lower age limit not stated. Sample size (males) 7 438, (females) 8 501 women.
- Smokers: included those who answered 'a little', 'sometimes' or 'rarely'.

22 Organisation for Economic Co-operation and Development (1993)

- No original source.

23-25 Nutbeam and Aarø (1990), King and Coles (1992), King *et al* (1996), Piette *et al* (1993), Currie *et al* (2000, 2004, 2008, 2012)

- 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 was 1 300 in each age group.
- For the 1990 survey a single national sample is reported (not split by region). Shown as source **23**. Sample size 3 007.

Target age	Mean age
13	13.5
15	15.4

- In other years the Flemish-speaking and French-speaking communities were surveyed independently (shown as sources **24** and **25** respectively). See source **29** for more extensive Flanders region results.

Year	Target age	Flemish-speaking		French-speaking	
		Mean age	Sample size	Mean age	Sample size
1986	13	-	-	-	1 197
	15	-	-	-	1 110
1994	13	13.5	1 424	13.5	1 585
	15	15.6	1 349	15.5	1 676
1998	13	13.5	1 535	-	-
	15	15.5	1 559	-	-
2002	13	13.5	2 106	15.5	1 503
	15	13.4	2 030	15.5	1 381
2006	13	13.5	1 404	13.5	1 603
	15	15.4	1 616	15.5	1 414
2009	13	13.4	1 453	13.5	1 396
	15	15.5	1 226	15.5	1 341

- Smokers marked as frequency *: smoked daily. Regular smokers: smoked once a week or more.

26 Statistika Centralbyrån (1995)

- a. Quoting Centre d'Information et de Documentation sur le Tabac / CRIOC. Sample size 1 904.

27 van Reek *et al* (1992), van Reek and Adriaanse (1995)

- a. A survey of Young Europeans. About 800 children aged 11-15 years were interviewed in each EC country except Luxembourg (where only 250 were interviewed). Lowest age group 11-12. Interviews conducted at home, with parents absent.
- b. Smokers marked as frequency *: smoked daily. All smokers: smoked at least once a week.

28 Demarest *et al* (1998), Buziarsist *et al* (2002), Leveque *et al* (2002), Bayingana *et al* (2006), Eurostat (accessed August 2007a,b), Gisle *et al* (2009, 2010)

- a. Enquête de Santé (Health Survey) by the Institut Scientifique de la Santé Publique (Scientific Institute of Public Health). Representative sample based on the national population register.

Year	Sample size	Participation rate (households), %
1997	10 225	60.5
2001	12 111	61.4
2004	12 945	61.4
2008	11 254	55.0

- b. Highest age group 75+ or 85+.
- c. In 1997, among subjects aged 15-24, 27.4% of males and 21.3% of females smoked daily.
- d. In 2001 smokers' use of tobacco products was distributed as (%):

Product	Males	Females
Cigarettes, 20+ per day	35.6	31.5
Cigarettes, 1-19 per day	41.6	53.3
Pipe or cigars, daily ¹	6.4	0.2
Occasional smokers	16.4	15.0
Total	100.0	100.0

¹ Daily pipe or cigar smokers who did not smoke cigarettes daily.

In 2004 the use of tobacco products by daily smokers was (%):

Product ¹	Males	Females
Manufactured cigarettes	74.7	90.5
Hand-made cigarettes without a filter	37.2	11.0
Hand-made cigarettes with a filter	21.1	25.6
Cigars, cigarillos	30.2	6.6
Pipe	7.7	1.9
Other	4.3	2.0

¹ Multiple answers were possible.

In 2008 the use of tobacco products by daily smokers was (%):

Product ¹	Males	Females
Manufactured cigarettes	60.9	75.0
Hand-made cigarettes without a filter	22.6	6.7
Hand-made cigarettes with a filter	13.0	20.5
Cigars	8.4	1.6
Pipe	1.2	0.3
Water pipe, shisha	0.1	0.5

¹ Multiple answers were possible.

- e. Data by age were estimated from graphs.
- f. In 1997 and 2001, consumption category estimation was based on two categories, 1-19 and 20+ cigarettes/smoker/day, and the resulting figures should be regarded with caution.
- g. In 2001, 2004 and 2008, calculations of cigarettes per person were based on percentage smokers of all products and number of cigarettes per cigarette smoker so may overestimate.

29 Vereecken and Maes (accessed November 2012), Maes and Vereecken (accessed November 2012), Hublet *et al* (2010)

- a. Study of 11-18 year old school students in Flanders. Regional data related to the HBSC (see sources 23-25) with the addition of 17-18 year olds and with additional surveys between HBSC years.

Year	Sample size		Response rate (schools)
	Boys	Girls	
1990	1 909	1 987	91%
1994	4 428	5 232	76%
1996	2 222	2 201	76%
1998	5 659	5 670	74%
2000	3 114	3 550	40%
2002	7 381	8 095	55%
2006	5 142	5 242	50%
2010	5 093	4 962	30%

- b. Smokers marked as frequency *: smoked daily. Regular smokers: smoked at least weekly.
c. Consumption category estimation in 2006 and 2010 based on 1-5, 6-10, 11-20 and 21+ cigarettes/smoker/day and percentage of daily smokers of any product so may overestimate. The method used may not be appropriate for teenagers.

30, 31 Rabier *et al* (1989), Reif and Melich (1990, 1991a, 1991b, 1992, 1995, 1998a, 1998b, 2000), Reif and Marlier (1998), Melich (2006), Christensen (2004), Papacostas (2008, 2009, (2012)

- 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.
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. For surveys before 1994 the sample consisted of people aged 15 and over who were resident in the country and had the country’s nationality (source **30**). For surveys after 1994 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 (source **31**). For 1994 itself (Eurobarometer survey 41.0) results were available according to both sample definitions and both are presented.
d. Two waves of the survey were carried out in each of 1988 and 1989. Prevalence data from both waves are presented in Table 4 but data on cigarettes per smoker and per person are available only from the first.
e. Frequency U represents positive answers to questions such as “Do you smoke cigarettes?” or “You smoke packeted cigarettes”. From 2002 an additional question made it possible to identify regular smokers also. The 2009 survey used a questionnaire format that clearly asked about regular and occasional smoking and so frequency codes R (regular) and A (all) are used.
f. Consumption category estimation based on <5, 5-9, 10-14, 15-19, 20-24, 25-30, 31-34, 35-40 and 41+ cigarettes/smoker/day (1987 only) and <5, 5-9, 10-14, 15-19, 20-24, 25-29, 30-34, 35-39 and 40+ cigarettes/smoker/day (all other years).
g. Before 2002 the calculation of cigarettes per person was based on prevalence of smoking (daily and non-daily) and number of cigarettes per daily smoker, so may overestimate.

32 Hibell *et al* (2004, 2009, 2012)

- a. Surveys forming part of ESPAD (European School Survey Project on Alcohol and Other Drugs). Nationally representative in 2003 but only Flanders was surveyed in subsequent years. Survey of pupils in school grades 8-10 (2003); 9-10 (2007); 4 grades (2010), selecting those born within a target year, thus age 15-16 at the time of the survey. At least 98% of 15-16 year-olds were still in school in each survey year, with at least 94% in the surveyed grades. Anonymous questionnaire completed and sealed in an envelope by the pupil, in class. Teachers or research assistants present, but discouraged from walking round the classroom.

Date	Sample size		Participation rate (%)		Target year of birth	Average age
	Males	Females	Schools	Pupils		
Mar-May 2003	1 112	1 208	46	81	1987	15.8
October 2007	969	920	54	-	1991	15.8
Nov-Dec 2010	974	824	58	-	1995	15.8

- c. Smokers marked as frequency *: smoked 1 or more cigarettes per day in the last 30 days. All smokers: smoked in the last 30 days.
d. Consumption category estimation based on 1-5, 6-10, 11-20, 21+ cigarettes/smoker/day.

33 Eurostat (2005), Eurostat (accessed August 2007b)

- a. European Community Household Panel (ECHP), a longitudinal survey, centrally designed and co-ordinated by the Statistical Office of the European Communities (Eurostat). The survey started in 1994 and smoking was first included in 1998. Participants were age 15+ and living in private households. In each wave, the original participants were contacted again (except if they previously refused or were incapacitated), and new respondents were also added.

Year	Number of respondents	Original respondents remaining (%)
1998	5 339	66
1999	5 021	59
2000	4 713	54

2001: Number of respondents not available.

- b. The highest age group was 85+.
- c. Consumption category estimation based on two categories, 1-19 and 20+ cigarettes/smoker/day, and resulting figures should be regarded with caution.

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