
International Smoking Statistics

Web Edition

A collection of worldwide historical data

Norway

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This report is an updated version of Chapter 20 of International Smoking Statistics 2nd edition, Wolfson Institute of Preventive Medicine and OUP, 2002, www.oup.co.uk/isbn/0-19-850856-5

Date of issue: 4-Oct-2012

(First issue)

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Issue History:

First issued 4-Oct-2012

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¹ See footnotes to Tables

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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 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 Figure 3 for chapters issued since January 2011;

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

Sales data

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

From 1927 until the Second World War the consumption of manufactured cigarettes per adult was about 1 cigarette per day. After a drop during the war, consumption quickly rose to about 1.5-2 cigarettes per day and remained at this level until a further increase in the 1980s to almost 3 cigarettes per day. This continued until the late 2000s, then dropped to 2.5 cigarettes per day by 2010. Estimates of hand-rolled cigarette consumption are available for 1939 and since 1946. Consumption per adult before the war was very low. It increased from 0.5 cigarettes per day in 1946 to nearly 4 cigarettes per day in the mid-1970s, and then declined to 1 cigarette per day in 2010. Total cigarette consumption reached nearly 6 cigarettes per day in 1980. From the early 1960s to the late 1980s, more hand-rolled cigarettes were consumed than manufactured cigarettes.

The consumption of all tobacco products per adult was about 4 g per day until the Second World War, when it fell to below 2 g. Between the late 1940s and 2000 consumption remained about 5-6 g per day, subsequently falling to 4.3 g per day by 2011. In the 1920s-1930s about 20% of tobacco by weight was consumed as manufactured cigarettes. This increased to about 30% from the 1940s to the early 1980s, and then to 50% by the mid-1990s. The percentage sold as pipe and hand-rolling tobacco was 32% in 1927, mainly used at that time for pipes (Lund *et al* (1995)). Usage in pipes has since declined to negligible levels, but with the increasing popularity of hand-rolled cigarettes, the pipe and hand-rolling percentage increased to nearly 70% in the mid-1970s, then declined to about 20%. Chewing tobacco and snuff were the predominant products before the 1930s (Lund *et al* (1995)), accounting for nearly 50% of sales. Chewing tobacco use dropped to negligible levels by the 1960s. Use of snus experienced a surge in popularity after 2000, reaching 25% of sales by 2010. Only about 1-3% of consumption has been in cigars.

These figures include estimates of cross-border sales, which increased substantially in the early 1980s to over 10% of total tobacco sales by weight. During the 2000s this rose again to over 30%.

Survey data

See Tables 4-9 and *Notes on sources of survey data*.

According to a market research survey in the early 1950s, the prevalence of smoking among men was 72% for all tobacco products and 53% for cigarettes. Among women it was 25%, with virtually no women smoking products other than cigarettes.

Two sources provide annual information on smoking in Norway: source 1, Norges Markedsdata, from 1960 to 1998 and source 4, Statens Tobakksskaderåd (National Council on Smoking and Health), since 1973. Both sources present only the prevalence of smoking of any tobacco product. According to source 1, in 1960 the prevalence of daily tobacco smoking among those aged 15 years and over was 63% in men and 25% in women, decreasing among men to about 40% in the 1990s and, among women, increasing then levelling at nearly 40% from the late

1970s. Data presented by source 4, from 1973 onwards, are consistently lower by about 5% for men and 8% for women. This source shows daily smoking rates decreasing steadily from the 1990s (around 35% for men and 30% for women) to less than 20% for both sexes by 2010. These reductions are seen in each age group.

In school-based surveys, the prevalence of smoking among teenage boys was higher than among girls when first surveyed in 1957, but decreased thereafter, and from the 1970s to the 1990s was generally similar to that among girls. Since then the prevalence among girls has been a little higher than that among boys. For the youngest age group reported in adult surveys (15-24 for source 1 and 16-24 for source 4), the prevalence has been consistently higher among young women than among young men from the mid-1970s to the late 1990s according to source 1, but this pattern is not clearly seen in source 4.

Comparison of survey and sales data, only possible for source 4, suggests that these surveys under-reported consumption by 5-40%. However this comparison should be regarded with caution due to the uncertainty in the sales data relating to cross border trade. For instance, in 1980, our estimate of understatement is about 25%, whereas according to Statens Tobakksskaderåd (National Council on Smoking and Health) (1996) it was 15%. During the 1970s and 1980s, the estimated number of cigarettes smoked per person per day (sales-adjusted) was 6-7 for men and 3-4 for women. During the 1990s and 2000s this fell to around 4.5 for men and 3.5 for women.

Data on the prevalence of snus use are available from the mid-1980s. From then through the 1990s snus was used by less than 10% of men and very few women. This increased during the 2000s, with around 10-13% of men using snus regularly (and 5-7% using it occasionally) and 2-3% of women using snus regularly. Among tobacco users there is a tendency to use either cigarettes or snus, regular use of both products being uncommon (see *Notes on sources of survey data*, p. 53).

Table 1.1 Total annual sales of tobacco products, 1927-1973

Year	Manufactured cigarettes		Cigars		Pipe & HR tobacco tonnes	Chewing tobacco tonnes	Snuff tonnes	All tobacco products tonnes
	tonnes	millions	tonnes	millions				
1927	540	512	90	21	950	950	450	2 990
1928	540	510	90	22	1 000	950	450	3 040
1929	640	545	90	21	1 040	950	500	3 220
1930	730	615	90	23	1 090	910	450	3 270
1931	640	551	50	20	1 130	820	410	3 040
1932	640	568	50	20	1 130	770	410	2 990
1933	680	583	50	20	1 180	680	410	2 990
1934	730	619	90	23	1 220	680	410	3 130
1935	730	651	90	25	1 320	640	410	3 180
1936	820	731	90	26	1 410	640	410	3 360
1937	950	841	90	30	1 450	590	450	3 540
1938	950	833	90	31	1 500	590	450	3 580
1939	1 040	909	90	31	1 680	590	450	3 860
1940	1 130	973	90	31	1 720	540	540	4 040
1941	820	725	50	21	1 220	360	540	2 990
1942	680	608	50	12	860	320	450	2 360
1943	680	562	0	7	680	230	360	1 950
1944	410	358	0	5	590	180	270	1 450
1945	590	517	0	5	860	180	270	1 910
1946	1 500	1 288	50	14	2 130	540	500	4 720
1947	1 860	1 548	50	22	2 360	410	500	5 170
1948	1 810	1 506	50	21	2 360	450	540	5 220
1949	1 680	1 396	50	22	2 400	360	540	5 030
1950	1 540	1 280	50	18	2 400	320	540	4 850
1951	1 450	1 232	50	16	2 450	320	540	4 810
1952	1 630	1 344	50	17	2 590	270	540	5 080
1953	1 540	1 305	50	21	2 630	270	540	5 030
1954	1 590	1 339	50	23	2 540	270	540	4 990
1955	1 590	1 427	50	21	2 630	230	540	5 030
1956	1 450	1 340	50	21	2 590	230	540	4 850
1957	1 590	1 441	50	24	2 720	230	500	5 080
1958	1 540	1 394	50	25	2 860	230	500	5 170
1959	1 540	1 420	50	26	2 990	180	500	5 260
1960	1 630	1 491	50	26	3 130	180	450	5 440
1961	1 590	1 424	90	34	3 360	180	450	5 670
1962	1 630	1 464	90	37	3 490	180	450	5 850
1963	1 540	1 403	90	41	3 490	140	450	5 720
1964	1 450	1 280	140	59	3 540	140	450	5 720
1965	1 630	1 462	90	50	3 720	140	410	5 990
1966	1 680	1 506	90	50	3 900	140	410	6 210
1967	1 770	1 624	140	55	3 990	90	360	6 350
1968	1 950	1 773	140	55	3 990	90	410	6 580
1969	2 090	1 917	140	55	4 220	90	270	6 800
1970	2 000	1 831	90	45	4 040	90	320	6 530
1971	1 910	1 752	90	55	3 990	90	320	6 400
1972	2 040	1 862	90	54	4 310	90	320	6 850
1973	2 000	1 842	90	53	4 350	90	270	6 800

Source: see *Notes on sources of sales data: Sales data before 1974*, p. 49.

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

Year	Sales within Norway					Estimated cross-border sales tonnes	All tobacco products tonnes	
	Manufactured cigarettes		Cigars tonnes	Pipe & HR ¹ tobacco tonnes	Chewing tobacco tonnes			Snus tonnes
	tonnes	millions						
1974	1 735	1 735	90	4 493	85	283	140	6 826
1975	1 755	1 755	98	4 580	63	263	150	6 909
1976	1 720	1 720	101	4 397	69	267	160	6 714
1977	1 957	1 957	91	4 401	69	283	170	6 971
1978	1 851	1 851	84	4 188	59	268	190	6 640
1979	2 042	2 042	79	4 335	60	260	200	6 976
1980	2 232	2 232	76	4 427	57	263	220	7 275
1981	1 995	1 995	70	4 373	55	270	250	7 013
1982	1 750	1 750	61	4 066	48	248	595	6 768
1983	1 768	1 768	61	4 154	43	247	880	7 153
1984	1 950	1 950	65	4 062	42	274	940	7 333
1985	2 303	2 303	64	3 999	40	292	805	7 503
1986	2 627	2 627	60	3 770	36	279	940	7 712
1987	2 740	2 740	57	3 551	31	270	915	7 564
1988	2 849	2 849	51	3 494	30	279	920	7 623
1989	2 935	2 935	49	3 425	26	285	900	7 620
1990	2 948	2 948	49	3 483	24	286	825	7 615
1991	3 016	3 016	48	3 491	20	283	785	7 643
1992	2 682	2 682	45	3 167	19	263	965	7 141
1993	2 820	2 820	45	3 365	20	295	840	7 385
1994	2 588	2 588	43	3 048	18	301	940	6 938
1995	2 653	2 653	41	2 944	17	314	990	6 959
1996	2 720	2 720	44	2 992	17	346	1 030	7 149
1997	2 771	2 771	44	2 786	16	354	1 074	7 045
1998	2 564	2 564	49	2 469	17	364	2 225	7 688
1999	2 730	2 730	52	2 388	16	365	1 878	7 429
2000	2 612	2 612	44	2 076	14	363	1 912	7 021
2001	2 605	2 605	38	2 032	13	386	1 821	6 895
2002	2 571	2 571	35	1 915	13	419	1 622	6 575
2003	2 464	2 464	32	1 794	13	468	1 973	6 744
2004	2 438	2 438	32	1 170	14	586	2 636	6 876
2005	2 365	2 365	31	1 117	14	648	2 003	6 178
2006	2 323	2 323	29	1 021	14	723	2 828	6 938
2007	2 370	2 370	28	1 003	14	899	1 745	6 059
2008	2 469	2 469	28	1 051	14	1 010	2 404	6 976
2009	2 490	2 490	26	1 053	13	1 104	2 361	7 047
2010	2 307	2 307	24	912	13	1 189	2 207	6 652
2011	2 102	2 102	24	844	12	1 197	2 056	6 235

1 Hand-rolling

Source: see *Notes on sources of sales data: Sales data for 1974 onwards*, p. 49.

Table 1.3 Estimated sales of manufactured cigarettes, adjusted for cross-border sales, 1961-1996

Year	Tax-free and cross-border sales, total tonnes	Cross-border sales of pipe and hand-rolling tobacco tonnes	Estimated cross-border sales of manufactured cigarettes		Manufactured cigarettes sold in Norway millions	Adjusted total manufactured cigarettes millions
			tonnes	millions		
1961	10		10	10	1 424	1 434
1962	20		20	20	1 464	1 484
1963	30		30	30	1 403	1 433
1964	40		40	40	1 280	1 320
1965	50		50	50	1 462	1 512
1966	60		60	60	1 506	1 566
1967	70		70	70	1 624	1 694
1968	80		80	80	1 773	1 853
1969	90		90	90	1 917	2 007
1970	100	34	66	66	1 831	1 897
1971	110	36	74	74	1 752	1 826
1972	120	40	80	80	1 862	1 942
1973	130	44	86	86	1 842	1 928
1974	140	46	94	94	1 735	1 829
1975	150	50	100	100	1 755	1 855
1976	160	54	106	106	1 720	1 826
1977	170	56	114	114	1 957	2 071
1978	190	64	126	126	1 851	1 977
1979	200	68	132	132	2 042	2 174
1980	220	74	146	146	2 232	2 378
1981	250	84	166	166	1 995	2 161
1982	595	200	395	395	1 750	2 145
1983	880	350	530	530	1 768	2 298
1984	940	350	590	590	1 950	2 540
1985	805	280	525	525	2 303	2 828
1986	940	350	590	590	2 627	3 217
1987	915	336	579	579	2 740	3 319
1988	920	318	602	602	2 849	3 451
1989	900	308	592	592	2 935	3 527
1990	825	237	588	588	2 948	3 536
1991	785	204	581	581	3 016	3 597
1992	965	272	693	693	2 682	3 375
1993	840	160	680	680	2 820	3 500
1994	940	189	751	751	2 588	3 339
1995	990	194	796	796	2 653	3 449
1996	1 030	205	825	825	2 720	3 545

Source and method of estimation: see *Notes on sources of sales data: Estimated cross-border sales*, p 49.

Table 1.4 Sales of cigarettes and snus: estimated cross-border sales and total sales (adjusted for cross-border sales), 1997-2011

Cigarettes								
Year	Proportion of consumption bought outside Norway %	Sales within Norway (as in Table 1.2)			Estimated cross-border sales Total cigarettes tonnes	Adjusted total sales		
		Manufactured cigarettes tonnes	Hand-rolled cigarettes ¹ tonnes	Total cigarettes tonnes		Manufactured cigarettes tonnes	Hand-rolled cigarettes tonnes	Total cigarettes tonnes
1997	15	2 771	2 647	5 418	956	3 260	3 114	6 374
1998	30	2 564	2 346	4 910	2 104	3 663	3 351	7 014
1999	26	2 730	2 269	4 999	1 756	3 689	3 066	6 755
2000	28	2 612	1 993	4 605	1 791	3 628	2 768	6 396
2001	27	2 605	1 971	4 576	1 693	3 568	2 700	6 269
2002	25	2 571	1 877	4 448	1 483	3 428	2 502	5 930
2003	30	2 464	1 776	4 240	1 817	3 520	2 537	6 057
2004	39	2 438	1 170	3 608	2 307	3 997	1 918	5 915
2005	32	2 365	1 117	3 482	1 639	3 478	1 643	5 121
2006	42	2 323	1 021	3 344	2 422	4 005	1 760	5 766
2007	30	2 370	1 003	3 373	1 446	3 386	1 433	4 819
2008	37	2 469	1 051	3 520	2 067	3 919	1 668	5 587
2009	36	2 490	1 053	3 543	1 993	3 891	1 645	5 536
2010	36	2 307	912	3 219	1 811	3 605	1 425	5 030
2011	36	2 102	844	2 946	1 657	3 284	1 319	4 603

Snus				
Year	Proportion of consumption bought outside Norway %	Sales within Norway (as in Table 1.2) tonnes	Estimated cross-border sales tonnes	Adjusted total sales tonnes
1997	25	354	118	472
1998	25	364	121	485
1999	25	365	122	487
2000	25	363	121	484
2001	25	386	129	515
2002	25	419	140	559
2003	25	468	156	624
2004	36	586	330	916
2005	36	648	365	1 013
2006	36	723	407	1 130
2007	25	899	300	1 199
2008	25	1 010	337	1 347
2009	25	1 104	368	1 472
2010	25	1 189	396	1 585
2011	25	1 197	399	1 596

Estimated total cross-border sales (cigarettes and snus)

Year	tonnes
1997	1 074
1998	2 225
1999	1 878
2000	1 912
2001	1 821
2002	1 622
2003	1 973
2004	2 636
2005	2 003
2006	2 828
2007	1 745
2008	2 404
2009	2 361
2010	2 207
2011	2 056

1 See Notes on sources of sales data: Estimates of numbers of hand-rolled cigarettes p. 51
Source and method of estimation: Notes on sources of sales data: Estimated cross-border sales, p 49.

Table 1.5 Total annual sales of cigarette papers

Year	Cigarette papers millions	Year	Cigarette papers millions
1939	94	1980	4 654
1946	360	1981	4 757
1947	345	1982	4 419
1948	271	1983	4 663
1949	656	1984	4 275
1950	735	1985	4 179
1951	697	1986	3 950
1952	822	1987	3 911
1953	819	1988	3 626
1954	917	1989	3 579
1955	929	1990	3 652
1956	971	1991	3 664
1957	1 032	1992	3 457
1958	1 050	1993	3 527
1959	1 132	1994	3 418
1960	1 323	1995	3 284
1961	2 129	1996	3 385
1962	2 519	1997	3 205
1963	2 758	1998	3 096
1964	2 513	1999	3 274
1965	2 938	2000	2 798
1966	3 161	2001	2 616
1967	3 260	2002	2 430
1968	3 417	2003	2 253
1969	3 742	2004	1 871
1970	3 549	2005	1 766
1971	3 612	2006	1 614
1972	4 120	2007	1 647
1973	3 950	2008	1 536
1974	4 621	2009	1 434
1975	4 701	2010	1 250
1976	4 451		
1977	4 420		
1978	4 365		
1979	4 401		

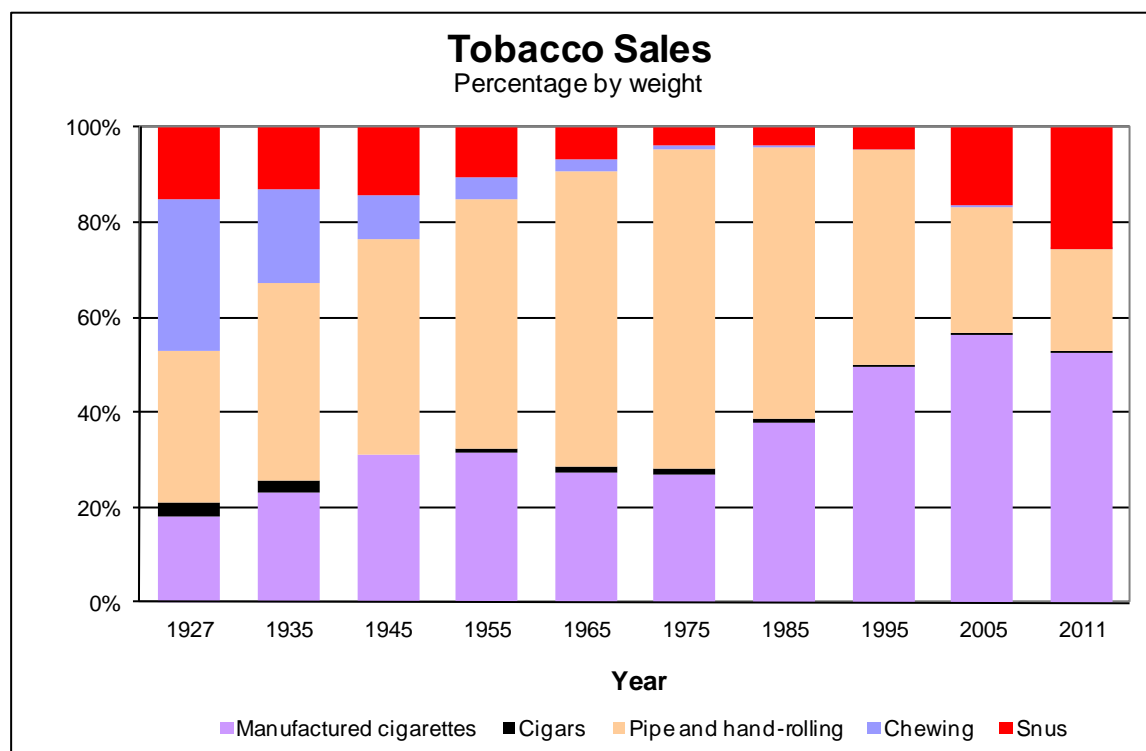
Source: see *Notes on sources of sales data: Cigarette paper sales*, p 50.

Table 1.6 Percentage of sales of tobacco in different forms (by weight, adjusted for cross-border sales¹), selected years

Year	Manufactured cigarettes %	Cigars %	Pipe and hand-rolling %	Chewing %	Snus %
1927	18.1	3.0	31.8	31.8	15.1
1935	23.0	2.8	41.5	20.1	12.9
1945	30.9	0.0	45.0	9.4	14.1
1955	31.6	1.0	52.3	4.6	10.7
1965	27.2	1.5	62.1	2.3	6.8
1975	26.8	1.4	67.0	0.9	3.8
1985	37.7	0.9	57.0	0.5	3.9
1995	49.6	0.6	45.1	0.2	4.5
2005	56.3	0.5	26.6	0.2	16.4
2011	52.7	0.4	21.2	0.2	25.6

1 Including estimated cross-border sales for 1975 onwards
Source: calculated from Tables 1.1-1.4.

Figure 1 Percentage of sales of tobacco in different forms (by weight, adjusted for cross-border sales), selected years



Source: Table 1.6.

Table 2 Sales¹ 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
1927	512	0.7					2 990	4.1
1928	510	0.7					3 040	4.2
1929	545	0.8					3 220	4.4
1930	615	0.8					3 270	4.5
1931	551	0.7					3 040	4.1
1932	568	0.8					2 990	4.0
1933	583	0.8					2 990	3.9
1934	619	0.8					3 130	4.1
1935	651	0.8					3 180	4.1
1936	731	0.9					3 360	4.3
1937	841	1.1					3 540	4.5
1938	833	1.1					3 580	4.5
1939	909	1.1	85	0.1	994	1.2	3 860	4.7
1940	973	1.2					4 040	4.9
1941	725	0.9					2 990	3.6
1942	608	0.7					2 360	2.8
1943	562	0.7					1 950	2.3
1944	358	0.4					1 450	1.7
1945	517	0.6					1 910	2.2
1946	1 288	1.5	324	0.4	1 612	1.9	4 720	5.5
1947	1 548	1.7	311	0.3	1 859	2.1	5 170	5.8
1948	1 506	1.7	244	0.3	1 750	2.0	5 220	5.8
1949	1 396	1.6	590	0.7	1 986	2.2	5 030	5.6
1950	1 280	1.4	662	0.7	1 942	2.2	4 850	5.4
1951	1 232	1.4	627	0.7	1 859	2.1	4 810	5.3
1952	1 344	1.5	740	0.8	2 084	2.3	5 080	5.6
1953	1 305	1.4	737	0.8	2 042	2.2	5 030	5.5
1954	1 339	1.5	825	0.9	2 164	2.3	4 990	5.4
1955	1 427	1.5	836	0.9	2 263	2.4	5 030	5.4
1956	1 340	1.4	874	0.9	2 214	2.4	4 850	5.2
1957	1 441	1.5	929	1.0	2 370	2.5	5 080	5.4
1958	1 394	1.5	945	1.0	2 339	2.5	5 170	5.4
1959	1 420	1.5	1 019	1.1	2 439	2.5	5 260	5.5
1960	1 491	1.5	1 191	1.2	2 682	2.8	5 440	5.6
1961	1 434	1.5	1 916	2.0	3 350	3.4	5 670	5.8
1962	1 484	1.5	2 267	2.3	3 751	3.8	5 850	5.9
1963	1 433	1.4	2 482	2.5	3 915	3.9	5 720	5.7
1964	1 320	1.3	2 262	2.2	3 582	3.5	5 720	5.6
1965	1 512	1.5	2 644	2.6	4 156	4.1	5 990	5.9
1966	1 566	1.5	2 845	2.8	4 411	4.3	6 210	6.0
1967	1 694	1.6	2 934	2.8	4 628	4.4	6 350	6.1
1968	1 853	1.8	3 075	2.9	4 928	4.7	6 580	6.3
1969	2 007	1.9	3 368	3.2	5 375	5.1	6 800	6.4
1970	1 897	1.8	3 194	3.0	5 091	4.8	6 530	6.1
1971	1 826	1.7	3 251	3.0	5 077	4.7	6 400	5.9
1972	1 942	1.8	3 708	3.4	5 650	5.2	6 850	6.3
1973	1 928	1.8	3 555	3.2	5 483	5.0	6 800	6.2
1974	1 829	1.7	4 159	3.8	5 988	5.4	6 826	6.2
1975	1 855	1.7	4 231	3.8	6 086	5.5	6 909	6.2
1976	1 826	1.6	4 006	3.6	5 832	5.2	6 714	6.0
1977	2 071	1.8	3 978	3.5	6 049	5.3	6 971	6.2
1978	1 977	1.7	3 929	3.4	5 906	5.2	6 640	5.8
1979	2 174	1.9	3 961	3.4	6 135	5.3	6 976	6.1

Table 2 (continued)

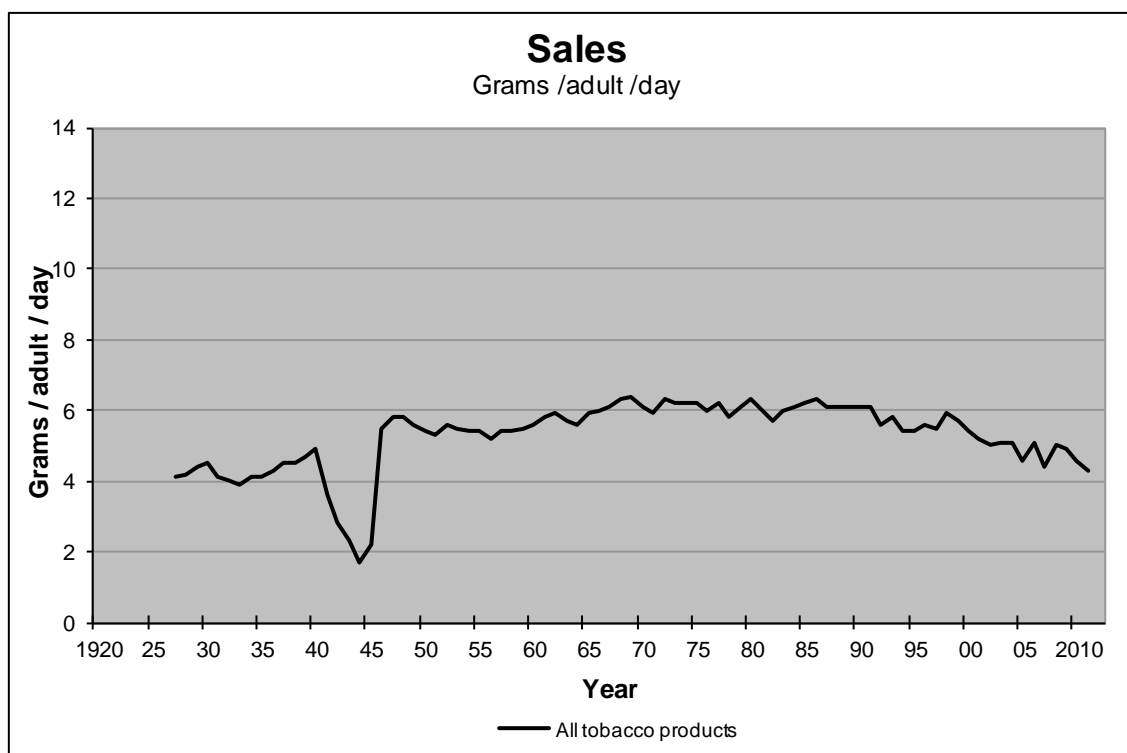
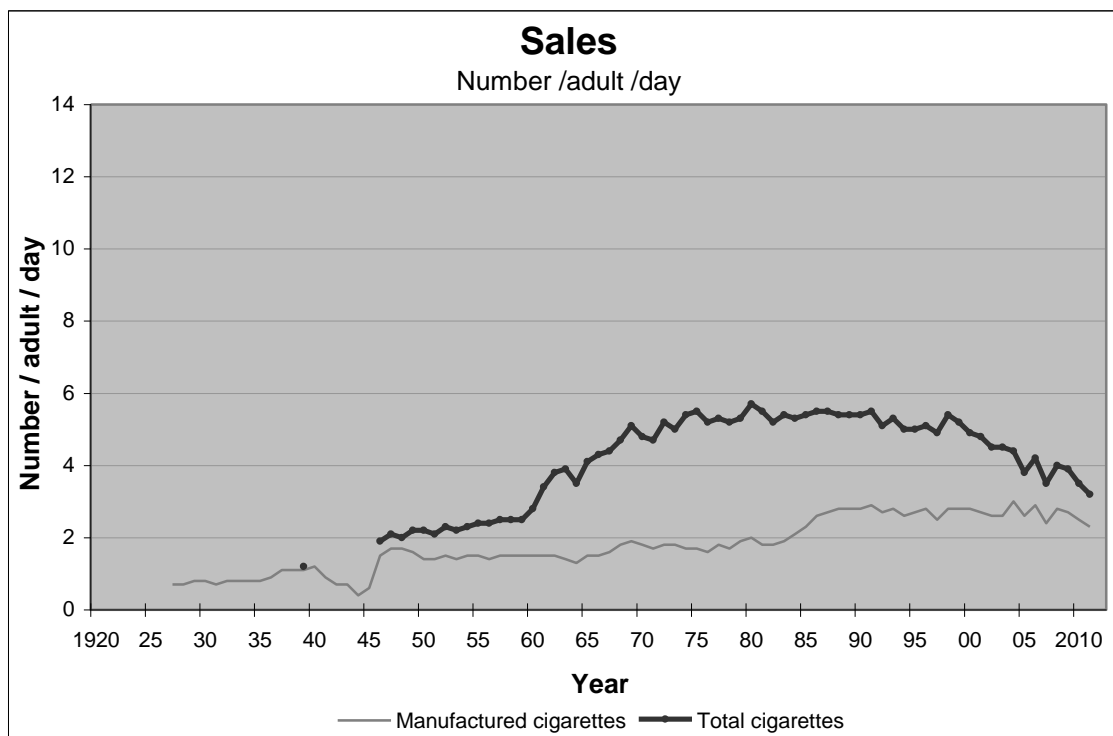
Year	Manufactured cigarettes		Hand-rolled cigarettes		Total cigarettes		All tobacco products	
	Total annual millions	Number/ adult/day	Total annual millions	Number/ adult/day	Total annual millions	Number/ adult/day	Total annual tonnes	Grams/ adult/day
1980	2 378	2.0	4 189	3.6	6 567	5.7	7 275	6.3
1981	2 161	1.8	4 281	3.7	6 442	5.5	7 013	6.0
1982	2 145	1.8	3 977	3.4	6 122	5.2	6 768	5.7
1983	2 298	1.9	4 197	3.5	6 495	5.4	7 153	6.0
1984	2 540	2.1	3 848	3.2	6 388	5.3	7 333	6.1
1985	2 828	2.3	3 761	3.1	6 589	5.4	7 503	6.2
1986	3 217	2.6	3 555	2.9	6 772	5.5	7 712	6.3
1987	3 319	2.7	3 520	2.9	6 839	5.5	7 564	6.1
1988	3 451	2.8	3 263	2.6	6 714	5.4	7 623	6.1
1989	3 527	2.8	3 221	2.6	6 748	5.4	7 620	6.1
1990	3 536	2.8	3 287	2.6	6 823	5.4	7 615	6.1
1991	3 597	2.9	3 298	2.6	6 895	5.5	7 643	6.1
1992	3 375	2.7	3 111	2.5	6 486	5.1	7 141	5.6
1993	3 500	2.8	3 174	2.5	6 674	5.3	7 385	5.8
1994	3 339	2.6	3 076	2.4	6 415	5.0	6 938	5.4
1995	3 449	2.7	2 956	2.3	6 405	5.0	6 959	5.4
1996	3 545	2.8	3 047	2.4	6 592	5.1	7 149	5.6
1997	3 260	2.5	3 114	2.4	6 374	4.9	7 045	5.5
1998	3 663	2.8	3 351	2.6	7 014	5.4	7 688	5.9
1999	3 689	2.8	3 066	2.4	6 755	5.2	7 429	5.7
2000	3 628	2.8	2 768	2.1	6 396	4.9	7 021	5.4
2001	3 568	2.7	2 700	2.0	6 269	4.8	6 895	5.2
2002	3 428	2.6	2 502	1.9	5 930	4.5	6 575	5.0
2003	3 520	2.6	2 537	1.9	6 057	4.5	6 744	5.1
2004	3 997	3.0	1 918	1.4	5 915	4.4	6 876	5.1
2005	3 478	2.6	1 643	1.2	5 121	3.8	6 178	4.6
2006	4 005	2.9	1 760	1.3	5 766	4.2	6 938	5.1
2007	3 386	2.4	1 433	1.0	4 819	3.5	6 059	4.4
2008	3 919	2.8	1 668	1.2	5 587	4.0	6 976	5.0
2009	3 891	2.7	1 645	1.2	5 536	3.9	7 047	4.9
2010	3 605	2.5	1 425	1.0	5 030	3.5	6 652	4.6
2011/2	3 284	2.3	1 319	0.9	4 603	3.2	6 235	4.3

1 Includes estimated cross-border sales for 1974 onwards.

2 Per adult data based on 2010 population.

Source: Tables 1.1-1.4. Hand-rolled cigarettes, see *Notes on sources of sales data: Estimates of numbers of hand-rolled cigarettes*, p. 51 and *Estimated cross-border sales*, p. 49. 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 and sales-weighted average machine yields per cigarette of tar (SWAT)

Year	Filter		SWAT mg/cig
	sales %	production %	
1961	25.0		
1962	28.0		
1963	30.0		
1964	35.0		
1967	42.0		
1968	44.0		
1969	49.4		
1970	52.0		27
1971	52.0		
1972	65.0		
1973	68.5		
1974	70.0		
1975	73.0		24
1976	73.0		23
1977			23
1978	75.0		22
1979	75.0		21
1980	80.0		20
1981	82.0		
1982		90.95	
1983		69.95	
1984		75.44	
1985		86.69	
1986		91.43	
1987		91.85	
1988		96.68	
1989		95.43	
1990		94.59	
1991		95.38	
1992		94.61	
1993		95.08	13.86
1994		94.42	
1995		94.53	
1996		96.30	
1997		95.77	
1998		95.87	
1999		96.32	
2000		96.32	
2001		96.32	
2002		96.32	
2003		96.32	
2004		96.32	

Source: see *Notes on sources of sales data: Plain/Filter cigarette sales*, p. 52 and *Tar and nicotine machine yields of cigarettes*, p. 52.

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Table 4M Prevalence of smoking, males: selected surveys by age
(continues on p. 22)

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+
54	2	TC	U	53																					
54	2	A	U	80				79				67				60					72				
55	1*	A	R	76					75				68				54								
57	5	U	*	3	7	13	24	35	38	35															
57	5	U	A	57	58	60	62	62	64	63															
60	1	A	R	64				73				66				45					64				
61	1	A	R	58				73				67				50					64				
62	1	A	R	55				72				66				49					63				
62	11	TC	U																						
62	11	A	U	56				51				40													
62	11	A	U	71				67				58													
63	1	A	R	55				72				65				49					62				
63	5	U	*	1	3	8	19																		
63	5	U	A	47	47	50	58																		
64	1	A	R	49				66				61				43					56				
64	9	U	R	67				62				54				42									
64	10	TC	R	47				31																	
64	10	A	R	62				50																	
65	1	A	R	49				66				61				45					57				
66	1	A	R	53				68				64				48					59				
67	1	A	R	51				65				62				47					58				
68	1	A	R	54				66				63				44					58				
69	1	A	R	54				65				61				44					58				
70	1	A	R	54				59				62				44					56				
71	1	A	R	48				56				59				43					53				
71	6	U	R	5																					
72	1	A	R	50				55				58				42					53				
72	6	U	R	4																					
72	12	UC	R	46				46				46													
72	12	A	R	51				51				56													
73	1	A	R	50				58				57				42					54				
73	3	UC	R	46																					
73	4	A	R	44				49				59				57				53					51
73	4*	A	A	58				65				63				64				61					61
74	1	A	R	50				56				54				39					52				
74	4	A	R	47				58				53				60				54					53
74	4*	A	A	55				64				61				64				61					60
75	1	A	R	45				55				57				44					52				
75	4	A	R	38				50				46				58				55					48
75	4*	A	A	54				63				59				66				59					58
75	7	UC	*	2	7	16	23												15						
75	7	UC	A	28	35	46	47												42						
76	1	A	R	47				56				56				46					51				
76	4	A	R	44				51				51				61				45					49
76	4*	A	A	50				62				58				63				55					56
76	13	A	U	47																					
77	1	A	R	42				52				51				40					47				
77	4	A	R	36				48				49				48				48					44
77	4*	A	A	52				63				60				59				51					56

Table 4F Prevalence of smoking, females: selected surveys by age
(continues on p. 23)

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+	
54	2	TC	U	25																						
54	2	A	U	33																	25					
55	1*	A	R	41																	35	21	7			
57	5	U	*	0	0	3	4	11	17	13																
57	5	U	A	25	36	39	42	45	61	53																
60	1	A	R	37																	34	20	7	27		
61	1	A	R	40																	34	22	6	28		
62	1	A	R	35																	36	20	9	26		
62	11	TC	U																							
62	11	A	U																							
63	1	A	R	35																	38	22	7	27		
63	5	U	*	0	1	3	7																			
63	5	U	A	28	33	38	43																			
64	1	A	R	34																	35	21	6	26		
64	9	U	R	36																	24	15	7			
64	10	TC	R	27																	11					
64	10	A	R	27																	11					
65	1	A	R	33																	35	21	7	26		
66	1	A	R	38																	38	25	10	29		
67	1	A	R	38																	39	23	8	30		
68	1	A	R	44																	39	25	9	33		
69	1	A	R	47																	43	25	11	36		
70	1	A	R	45																	44	29	12	37		
71	1	A	R	45																	42	26	9	35		
71	6	U	R																							
72	1	A	R	48																	43	30	10	38		
72	6	U	R																							
72	12	UC	R																							
72	12	A	R																							
73	1	A	R	49																	43	31	14	38		
73	3	UC	R	37																						
73	4	A	R	42																	46	42	33	19	13	32
73	4*	A	A	55																	62	48	43	29	16	42
74	1	A	R	49																	42	28	12	37		
74	4	A	R	43																	47	37	37	20	9	32
74	4*	A	A	53																	60	48	43	30	15	41
75	1	A	R	55																	48	36	15	39		
75	4	A	R	39																	45	39	34	27	7	33
75	4*	A	A	54																	58	47	43	30	14	41
75	7	UC	*	2	7	17	28												17							
75	7	UC	A	24	36	51	59												48							
76	1	A	R	48																	48	36	15	38		
76	4	A	R	40																	39	38	38	22	12	32
76	4*	A	A	51																	57	49	42	29	14	41
76	13	A	U	36																						
77	1	A	R	52																	47	37	18	40		
77	4	A	R	37																	42	33	34	21	11	30
77	4*	A	A	51																	58	48	42	28	16	41

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	75	80+															
78	1	A	R						44								53									42			49											
78	4	A	R							39							52			46						47			44		41			45						
78	4*	A	A														64			58						54			52		44			54						
79	1	A	R														43													50			39		47					
79	4	A	R																	33						50			45		46			43						
79	4*	A	A																	48						61			55		53			53						
79	14	U	*																																					
79	14	U	A																																					
80	1	A	R																		40						49			50				42		46				
80	4	A	R																								35			42		42		44		50		40		42
80	4*	A	A																																				51	
80	7	UC	*																																				14	
80	7	UC	A																																				34	
81	1	A	R																																				44	
81	4	A	R																																				40	
81	4*	A	A																																				48	
82	1	A	R																																				44	
82	4	A	R																																				40	
82	4*	A	A																																				50	
83	1	A	R																																				45	
83	4	A	R																																				42	
83	4*	A	A																																				49	
83	15	U	*																																					
83	15	U	R																																					
83	15	U	A																																					
84	1	A	R																																				44	
84	4	A	R																																				42	
84	4*	A	A																																				50	
85	1	A	R																																				44	
85	4	A	R																																				42	
85	4*	A	A																																				50	
85	7	UC	*																																				12	
85	7	UC	A																																				30	
85	8	U	U																																					
85	15	U	*																																					
85	15	U	R																																					
85	15	U	A																																					
86	1	A	R																																				44	
86	4	A	R																																				39	
86	4*	A	A																																				49	
86	16	U	R																																					
86	16	U	A																																					
86	22	U	R																																					
86	22	U	A																																					
87	1	A	R																																				45	
87	4	A	R																																				40	
87	4*	A	A																																				49	
87	17	U	R																																					

Table 4F (continued from p. 21, continues on 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	70	75	80+								
78	1	A	R																							55	48	36	18		40		
78	4	A	R																							36	42	35	37	21	11		31
78	4*	A	A																							51	56	47	41	30	16		41
79	1	A	R																							49	48	37	19		39		
79	4	A	R																							37	40	39	32	28	13		33
79	4*	A	A																							52	55	47	41	29	18		41
79	14	U	*			9																											
79	14	U	A		8	27																											
80	1	A	R																							50	46	39	19		39		
80	4	A	R																							36	41	36	30	21	11		30
80	4*	A	A																							50	53	45	40	31	16		40
80	7	UC	*			4	11	21																									12
80	7	UC	A			19	35	46																									33
81	1	A	R																							47	47	37	20		38		
81	4	A	R																							33	39	34	38	25	10		31
81	4*	A	A																							50	56	44	41	32	16		42
82	1	A	R																							48	46	41	20		39		
82	4	A	R																							37	48	35	33	28	15		34
82	4*	A	A																							48	57	44	42	32	16		41
83	1	A	R																							49	51	39	21		41		
83	4	A	R																							31	43	39	32	26	11		32
83	4*	A	A																							46	59	47	43	32	16		42
83	15	U	*			3		22																									
83	15	U	R			6		28																									
83	15	U	A			13		39																									
84	1	A	R																							45	49	40	22		40		
84	4	A	R																							31	46	40	41	26	10		34
84	4*	A	A																							44	56	46	43	32	15		42
85	1	A	R																							42	49	40	20		39		
85	4	A	R																							34	42	36	35	28	9		32
85	4*	A	A																							43	56	45	43	33	17		41
85	7	UC	*			3	10	19																									11
85	7	UC	A			16	27	39																									27
85	8	U	U					40																									
85	15	U	*			6		17																									
85	15	U	R			8		24																									
85	15	U	A			15		38																									
86	1	A	R																							43	49	40	23		39		
86	4	A	R																							28	43	37	35	25	15		31
86	4*	A	A																							44	56	46	42	36	20		42
86	16	U	R																														
86	16	U	A																														
86	22	U	R																							29							
86	22	U	A																							43							
87	1	A	R																							48	52	41	25		42		
87	4	A	R																							32	44	37	38	27	15		33
87	4*	A	A																							42	58	48	43	38	25		43
87	17	U	R																														

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 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64		65 - 69	70 - 74	75 - 79	80+							
88	1	A	R					36				46				46				37				42								
88	4	A	R					28				44				47				47				44				38				41
88	4*	A	A					39				53				55				49				49				42				49
89	1	A	R				36				47				46				36								42					
89	4	A	R					24				39				45				36				44				36				37
89	4*	A	A					37				52				55				48				48				41				47
89	15	UC	*		3				17																							
89	15	UC	R		5				22																							
89	15	UC	A		9				29																							
89	18	U	A						40																							
90	1	A	R					34				47				43				35				41								
90	4	A	R					26				42				41				39				35				35				36
90	4*	A	A					39				52				54				46				44				36				46
90	7	UC	*		2		7		17																9							
90	7	UC	A		11		22		31																21							
90	19	U	*		2																											
90	19	U	A		3																											
90	22	U	R					24																								
90	22	U	A					33																								
91	1	A	R					33				45				45				35				40								
91	4	A	R					31				41				42				38				32				23				36
91	4*	A	A					41				53				52				48				41				34				47
91	19	U	*			9																										
91	19	U	A			12																										
91	22	U	R					22																								
91	22	U	A					32																								
91	26	MC	U					23				23				14				7				16								
91	26	TC	U					35				43				43				33				38								
91	26	A	U					35				44				46				33				40								
92	1	A	R					35				46				45				34				41								
92	4	A	R					29				40				42				46				36				27				37
92	4*	A	A					45				53				53				51				42				32				47
92	19	U	*					13																								
92	19	U	A					18																								
92	20	UC	*					16																								
92	20	UC	R					20																								
92	20	UC	A					35																								
92	22	U	R					21																								
92	22	U	A					31																								
92	26	MC	U					22				26				12				12				18								
92	26	TC	U					28				50				46				38				41								
92	26	A	U					28				50				48				47				44								
93	1	A	R					36				45				44				32				40								
93	4	A	R					32				39				41				42				40				28				38
93	4*	A	A					46				54				54				49				43				34				48
93	15	UC	R		5				20																							
93	19	U	*					16																								
93	19	U	A					19																								
93	22	U	R					20																								
93	22	U	A					31																								

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	70	75	80+						
88	1	A	R									43			50				41			25									41
88	4	A	R										28			44		40		36		34		26						35	
88	4*	A	A										44			55		50		43		35		23						43	
89	1	A	R											44			50			41			23							41	
89	4	A	R											35			41		44		35		21		14					34	
89	4*	A	A											41			53		53		41		35		23					43	
89	15	UC	*			4						16																			
89	15	UC	R			6						22																			
89	15	UC	A			11						32																			
89	18	U	A																												
90	1	A	R										41			50			41			22								38	
90	4	A	R											30			44		43		30		32		15					33	
90	4*	A	A											42			50		55		40		32		21					42	
90	7	UC	*			2	8		19																						10
90	7	UC	A			11	25		42																						26
90	19	U	*				5																								
90	19	U	A				7																								
90	22	U	R														26														
90	22	U	A														40														
91	1	A	R											38			47			40			20								36
91	4	A	R														28		39		41		34		28		19				33
91	4*	A	A														41		54		52		39		35		21				42
91	19	U	*				9																								
91	19	U	A																												
91	22	U	R																												
91	22	U	A																												
91	26	MC	U																												22
91	26	TC	U																												39
91	26	A	U																												39
92	1	A	R																												37
92	4	A	R																												32
92	4*	A	A																												42
92	19	U	*																												
92	19	U	A																												
92	20	UC	*																												
92	20	UC	R																												
92	20	UC	A																												
92	22	U	R																												
92	22	U	A																												
92	26	MC	U																												23
92	26	TC	U																												37
92	26	A	U																												37
93	1	A	R																												38
93	4	A	R																												36
93	4*	A	A																												43
93	15	UC	R																												
93	19	U	*																												
93	19	U	A																												
93	22	U	R																												
93	22	U	A																												

Table 4M (continued from p. 24, continues on p. 28)
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+
94	1	A	R						34			43			43				30						38
94	4	A	R						32			41		42		30		33		25					35
94	4*	A	A						47			52		53		47		42		34					48
94	22	U	R						19																
94	22	U	A						30																
94	26	MC	U						21			25		13					11						17
94	26	TC	U						28			42		33					32						35
94	26	A	U						28			43		37					33						36
95	1	A	R						37			45		45					34						41
95	4	A	R						29			36		37		35		33		26					33
95	4*	A	A						46			52		51		47		42		34					47
95	7	UC	*		2	7	14																		8
95	7	UC	A		12	23	33																		23
95	21	UC	*					17																	
95	21	UC	A					33																	
95	22	U	R					19																	
95	22	U	A					32																	
96	1	A	R					39			47		46						32						41
96	4	A	R					29			37		36		36		39		33						34
96	4*	A	A					45			51		50		49		41		33						47
96	22	U	R					20																	
96	22	U	A					33																	
97	1	A	R					36			44		44						30						39
97	4	A	R					31			36		36		38		30		31						35
97	4*	A	A					46			50		48		48		39		32						46
97	15	UC	*		5		18																		
97	15	UC	R		8		23																		
97	22	U	R					21																	
97	22	U	A					34																	
98	1	A	R					29			44		42						30						37
98	4	A	R					25		35	42	39	39	40	37	36	30	29	22						34
98	4*	A	A					47			49		47		48		36		31						45
98	22	U	R					22																	
98	22	U	A					35																	
98	23	A	R								28														
98	23	A	A								40														
98	27	A	R					28			39		33						21						33
98	27	A	A					42			51		42						26						43
99	4*	A	R					30			33		35		37		27		25						32
99	4*	A	A					47			46		47		46		35		29						43
99	21	UC	*					22																	
99	21	UC	A					36																	
99	22	U	R					22																	
99	22	U	A					34																	

Table 4F (continued from p. 25, continues on p. 29)
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+	
94	1	A	R							38																37
94	4	A	R							23			36	35	36	30	25									31
94	4*	A	A							45			52	51	42	36	26									44
94	22	U	R							22																
94	22	U	A							36																
94	26	MC	U							33			29		21			13								22
94	26	TC	U							39			44		41			25								36
94	26	A	U							39			44		41			25								36
95	1	A	R							39			46		43			21								37
95	4	A	R							29			34	40	35	26	19									32
95	4*	A	A							45			49	50	46	36	26									44
95	7	UC	*		3	9	16																			9
95	7	UC	A		16	29	42																			29
95	21	UC	*				19																			
95	21	UC	A				39																			
95	22	U	R				22																			
95	22	U	A				37																			
96	1	A	R							35			46		41			22								36
96	4	A	R							29			32	42	40	33	12									33
96	4*	A	A							45			51	50	46	36	25									44
96	22	U	R				21																			
96	22	U	A				38																			
97	1	A	R							42			45		42			27								38
97	4	A	R							31			36	35	37	27	21									33
97	4*	A	A							46			50	49	47	34	25									45
97	15	UC	*		4		21																			
97	15	UC	R		7		28																			
97	22	U	R				23																			
97	22	U	A				41																			
98	1	A	R							38			42		43			23								36
98	4	A	R							32	28	32	30	41	42	38	34	29	24	15						30
98	4*	A	A							47			50	48	46	32	25									44
98	22	U	R				24																			
98	22	U	A				41																			
98	23	A	R									30														
98	23	A	A									42														
98	27	A	R							30			35			31				15						30
98	27	A	A							47			48			38				19						40
99	4*	A	R							30			33	37	36	27	21									32
99	4*	A	A							47			47	48	46	32	25									43
99	21	UC	*				26																			
99	21	UC	A				44																			
99	22	U	R							24																
99	22	U	A							41																

Table 4M (continued from p. 26, continues on p. 30)
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
00	4*	A	R						28		32		33		37		28		24			31
00	4*	A	A						45		45		46		46		36		29			42
00	7	UC	*		4	9	16															
00	7	UC	A		15	27	33															
00	22	U	R					22														
00	22	U	A					34														
01	4*	A	R					28		30		31		35		28		24				30
01	4*	A	A					45		45		43		45		36		29				42
01	15	A	*		3		16															
01	15	A	R		6		20															
01	22	U	R					20														
01	22	U	A					32														
02	4*	A	R					25		29		30		34		29		23				29
02	4*	A	A					41		44		43		44		38		27				41
02	22	U	R					19														
02	22	U	A					29														
02	23	A	R						25													
02	23	A	A						39													
02	24	A	*			14																
02	24	A	A			26																
02	27	A	R					24		28				33				18				28
02	27	A	A					40		44				41				22				39
03	4	A	R					23		26		31		32		28		20				27
03	4*	A	A					42		41		43		41		37		26				40
03	21	UC	*			16																
03	21	UC	A			24																
03	22	U	R					16														
03	22	U	A					26														
04	4*	A	R					25		25		30		30		29		19				27
04	4*	A	A					40		41		42		38		38		23				38
04	22	U	R					14														
04	22	U	A					23														
04	25	U	R			9	12	15	22	26												17
04	25	U	A			10	16	18	26	32												20
05	4*	A	R					24		24		27		29		29		18				26
05	4*	A	A					39		40		39		36		37		22				37
05	7	UC	*		1	5	9															
05	7	UC	A		5	12	21															
05	22	U	R					12														
05	22	U	A					21														
05	27	A	R					20		27				27				16				24
05	27	A	A					34		41				35				19				34
06	4	A	R					21		22		24		27		30		18				24
06	4*	A	A					36		37		37		36		33		20				34
06	15	A	*		0		7															
06	15	A	R		1		9															
06	22	U	R					10														
06	22	U	A					19														
06	23	A	R						18													
06	23	A	A						31													

Table 4F (continued from p. 27, continues on p. 31)
Prevalence of smoking, females

Year	Source	Product	Frequency	Age Groups																	All ages					
				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+	
00	4*	A	R					30			31			37			37			27			18			31
00	4*	A	A					46			46			48			45			33			23			42
00	7	UC *			3	12	18																			
00	7	UC A			15	34	42																			
00	22	U	R				22																			
00	22	U	A				40																			
01	4*	A	R				30			29		35		35		29		17								31
01	4*	A	A				45			43		46		43		34		21								41
01	15	A *			4		20																			
01	15	A	R			7		27																		
01	22	U	R				21																			
01	22	U	A				37																			
02	4*	A	R				27			28		32		34		27		15								28
02	4*	A	A				43			43		44		43		33		18								39
02	22	U	R				19																			
02	22	U	A				34																			
02	23	A	R							26																
02	23	A	A							39																
02	24	A *					17																			
02	24	A	A				34																			
02	27	A	R				27			26				32				15								26
02	27	A	A				43			38				41				19								36
03	4	A	R				22			27		28		31		24		15								25
03	4*	A	A				41			40		43		42		32		19								38
03	21	UC *					20																			
03	21	UC A					32																			
03	22	U	R				19																			
03	22	U	A				32																			
04	4*	A	R				22			23		29		30		25		15								25
04	4*	A	A				40			37		40		39		31		19								36
04	22	U	R				17																			
04	22	U	A				30																			
04	25	U	R				11	19	20	27	21															19
04	25	U	A				13	20	23	31	25															23
05	4*	A	R				22			21		29		29		25		16								24
05	4*	A	A				38			34		39		38		32		21								35
05	7	UC *			1	4	10																			
05	7	UC A			5	14	25																			
05	22	U	R				16																			
05	22	U	A				27																			
05	27	A	R				22			27				27				13								24
05	27	A	A				38			38				35				15								33
06	4	A	R				20			21		28		27		26		17								24
06	4*	A	A				35			34		37		36		32		23								34
06	15	A *			1		9																			
06	15	A	R			2	12																			
06	22	U	R				13																			
06	22	U	A				24																			
06	23	A	R							17																
06	23	A	A							28																

Table 4M (continued from p. 28)
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+
07	4*	A	R					16				19		24		26		25		16			22		
07	4*	A	A					30				33		35		34		31		20			32		
07	21	UC	*				9																		
07	21	UC	A				18																		
07	22	U	R				9																		
07	22	U	A				17																		
07	25	U	R				7	10	15	17	18											13			
07	25	U	A				10	13	18	21	24											17			
08	4*	A	R					15				19		23		25		23		16					21
08	4*	A	A					30				34		34		35		29		20			31		
08	22	U	R				8																		
08	22	U	A				16																		
08	27	A	R					15				22				26				9				21	
08	27	A	A					29				36				32				11				30	
09	4	A	R					18				21		20		24		23		18			21		
09	4	A	A					33				38		31		35		28		21			31		
10	4	A	R					10				22		17		24		23		19			19		
10	4	A	A					27				37		28		35		31		23			30		
11	4	A	R					9				16		15		21		23		14			17		
11	4	A	A					27				33		28		29		31		18			28		
11	21	UC	*				4																		
11	21	UC	A				15																		

Source: see *Notes on sources of survey data*, p. 53
 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. 53
 All ages: relates to ages reported; as given in original source

Table 4F (continued from p. 29)
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+
07	4*	A	R							18				19		25		27		23		18			
07	4*	A	A							31				31		34		35		30		23			
07	21	UC	*					11																	
07	21	UC	A					21																	
07	22	U	R							12															
07	22	U	A							23															
07	25	U	R					9	11	11	23	17													14
07	25	U	A					10	12	15	29	21													17
08	4*	A	R							17				18		22		26		23		16			21
08	4*	A	A							30				30		31		33		28		21			30
08	22	U	R							10															
08	22	U	A							21															
08	27	A	R							19				20				24				11			20
08	27	A	A							32				30				32				14			29
09	4	A	R							15				19		19		25		24		13			20
09	4	A	A							28				30		27		33		28		16			28
10	4	A	R							14				17		18		26		20		18			19
10	4	A	A							24				31		29		36		26		19			28
11	4	A	R							13				13		18		23		21		14			18
11	4	A	A							24				27		29		34		29		19			28
11	21	UC	*					4																	
11	21	UC	A					14																	

Source: see *Notes on sources of survey data*, p. 53
 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. 53
 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
54	2	A		9.8																		
57	5	UC		4.2	5.6	7.1	8.1	10	11	12												
62	11	TC	E												12	11	11					
72	12	UC	E						11	14			13									
73	4	TC						12	16		14		14		12		9.1					13
74	4	TC						11	14		14		15		13		10					13
75	4	TC						11	15		16		13		12		11					13
75	7	UC		4.6	4.8	5.4	7.1															6.1
76	4	TC						12	15		14		12		12		9.7					13
77	4	TC						12	15		17		15		12		11					14
78	4	TC						11	15		15		12		12		11					13
79	4	TC						13	15		16		15		12		10					14
79	14	UC		5.6																		
80	4	TC						12	15		13		16		11		11					13
80	7	UC		5.2	6.3	8.1															7.1	
81	4	TC						12	15		18		14		14		12					14
82	4	TC						13	14		15		14		15		11					14
83	4	TC						14	15		17		15		15		11					15
84	4	TC						14	14		16		16		14		15					15
85	4	TC		15																		
85	7	UC		3.7	6.5	7.6															6.9	
86	4	TC		15																		
86	16	UC	E						12													
87	4	TC		14																		
87	17	UC	E							15												
88	4	TC		16																		
89	4	TC		15																		
89	18	UC	E								16											
90	4	TC		15																		
90	7	UC		5.0	6.0	8.1															7.3	
91	4	TC		15																		
91	26	TC	E					11	15			17			14					15		
92	4	TC		15																		
92	20	UC							7													
92	26	TC	E					8.8	15			16			15					14		
93	4	TC		15																		
94	4	TC		15																		
94	26	TC	E					14	12			13			13					13		
95	4	TC		15																		
95	7	UC		5.5	6.6	8.4															7.6	
95	21	UC	E						9.6													
97	15	UC		0.7						3.6												
99	21	UC	E						9.8													
03	4	TC		15																		
03	21	UC	E						11													
05	27	UC						12	14			16			9					14		
06	4	TC		14																		
07	21	UC	E						12													
08	4*	TC	E	14																		
08	27	UC						14	13			13			10					13		
09	4	TC		13																		
11	21	UC	E						8.4													

Source: see *Notes on sources of survey data*, p. 53
 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. 53
 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+	
54	2	A																								
57	5	UC		4.5	8.8	5.6	7.2	6.3	6.5	8.0																
62	11	TC	E																							
72	12	UC	E																							
73	4	TC						9.4		11		9.7		10		10		8.6							9.9	
74	4	TC						10		9.2		12		10		9.7		8.2							10	
75	4	TC						9.7		11		11		12		11		6.9							11	
75	7	UC		3.4	4.4	5.3	6.5																		5.8	
76	4	TC						9.7		11		11		11		10		8.3							10	
77	4	TC						9.7		11		12		10		9.4		11							11	
78	4	TC						10		12		12		11		9.7		11							11	
79	4	TC						11		11		13		10		10		9.1							11	
79	14	UC		2.1																						
80	4	TC						9.4		12		12		12		10		11							11	
80	7	UC		3.7	4.9	6.8																			5.8	
81	4	TC						12		10		13		12		11		8.5							11	
82	4	TC						10		11		13		10		9.2		9.5							11	
83	4	TC						11		12		12		13		11		8.1							11	
84	4	TC						11		12		13		12		12		12							12	
85	4	TC										12														
85	7	UC		6.2	6.0	6.6																			6.3	
86	4	TC										13														
86	16	UC	E																							
87	4	TC										12														
87	17	UC	E																							
88	4	TC										12														
89	4	TC										12														
89	18	UC	E																							
90	4	TC										12														
90	7	UC		4.4	5.3	6.8																			6.3	
91	4	TC										12														
91	26	TC	E					11		12		12		10											12	
92	4	TC										12														
92	20	UC						7																		
92	26	TC	E					8.7		11		13		10											11	
93	4	TC										12														
94	4	TC										12														
94	26	TC	E					9.7		11		12		11											11	
95	4	TC										12														
95	7	UC		3.8	5.4	6.6																			6.1	
95	21	UC	E					7.6																		
97	15	UC		0.7		2.9																				
99	21	UC	E					7.9																		
03	4	TC										11														
03	21	UC	E					7.4																		
05	27	UC						11		11		11		11		9									11	
06	4	TC										12														
07	21	UC	E					7.9																		
08	4*	TC	E									11														
08	27	UC						10		11		11		11		10									11	
09	4	TC										11														
11	21	UC	E					4.8																		

Source: see *Notes on sources of survey data*, p. 53
 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. 53
 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
54	2	A	7.1																		**		
57	5	UC	0.1	0.4	0.9	1.9	3.5	4.0	4.2														**
62	11	TC												7.0	5.7	4.2							**
72	12	UC						5.3	6.6	6.2									**				
73	4	TC*						5.3	8.0	8.2	8.0	6.2	3.5						6.7	93%T			
74	4	TC*						5.4	8.2	7.6	9.1	6.7	4.3						7.0	89%T			
75	4	TC*						4.3	7.3	7.5	7.8	6.7	4.6						6.3	84%T			
75	7	UC	0.1	0.3	0.9	1.6																0.9	**
76	4	TC*						5.4	7.5	7.2	7.4	5.3	3.8						6.3	85%T			
77	4	TC*						4.5	7.1	8.1	7.1	5.8	3.8						6.1	81%T			
78	4	TC*						4.3	8.0	6.9	5.7	5.3	4.6						5.9	84%T			
79	4	TC*						4.4	7.4	7.0	6.9	5.5	3.9						6.0	82%T			
79	14	UC	0.4																		**		
80	4	TC*						4.1	6.2	5.4	7.1	5.7	4.4						5.5	72%T			
80	7	UC	0.3	0.8	1.7																1.0	**	
81	4	TC*						4.0	6.6	7.5	6.4	4.7	4.3						5.7	76%T			
82	4	TC*						4.2	5.8	6.9	5.4	6.2	4.3						5.6	82%T			
83	4	TC*						4.1	6.3	7.8	6.6	7.8	4.5						6.3	82%T			
84	4	TC*						4.5	6.1	7.9	6.8	6.0	5.5						6.3	87%T			
85	4	TC*	6.2																		85%T		
85	7	UC	0.1	0.7	1.6																0.8	**	
86	4	TC*	6.0																		82%T		
86	16	UC						6.3													**		
87	4	TC*						5.8												81%T			
87	17	UC						6.6													**		
88	4	TC*	6.4																		89%T		
89	4	TC*	5.6																		81%T		
89	18	UC						6.3													**		
90	4	TC*	5.4																		80%T		
90	7	UC	0.1	0.4	1.4																0.6	**	
91	4	TC*	5.3																		78%T		
91	26	TC*						3.9	6.3	7.4	4.5								5.6	92%T			
92	4	TC*	5.5																		84%T		
92	20	UC	1.1																		**		
92	26	TC*						2.4	7.4	7.4	5.6								5.9	97%T			
93	4	TC*	5.8																		87%T		
94	4	TC*	5.1																		80%T		
94	26	TC*						3.8	5.3	4.3	4.3								4.5	84%T			
95	4	TC*	4.9																		79%T		
95	7	UC	0.1	0.5	1.2																0.6	**	
95	21	UC						1.6													**		
97	15	UC	0.1	0.8																		**	
99	21	UC						2.2													**		
03	4	TC*	4.0																		68%T		
03	21	UC						1.7													**		
05	27	UC*						2.4	3.8	4.3	1.4								3.4	78%T			
06	4	TC*	3.4																		68%T		
07	21	UC						1.1													**		
08	4*	TC	3.0																		63%T		
08	27	UC*						2.1	2.9	3.4	0.9								2.7	59%T			
09	4	TC*	2.5																		55%T		
11	21	UC						0.3													**		

Source: Notes on sources of survey data, p53

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, p53
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+									
54	2	A																																**
57	5	UC		0.0	0.0	0.2	0.3	0.7	1.1	1.0																							**	
62	11	TC																															**	
72	12	UC																															**	
73	4	TC*						3.9			4.8		4.1		3.3		2.0		1.1								3.2					93%T		
74	4	TC*						4.3			4.3		4.4		3.7		1.9		0.7								3.2					89%T		
75	4	TC*						3.8			4.9		4.1		3.9		2.8		0.5								3.5					84%T		
75	7	UC	0.1	0.3	0.9	1.8																						1.0				**		
76	4	TC*						3.9			4.1		4.1		4.1		2.3		1.0								3.3					85%T		
77	4	TC*						3.6			4.8		3.9		3.5		2.0		1.2								3.2					81%T		
78	4	TC*						3.7			4.8		4.2		4.1		2.0		1.3								3.4					84%T		
79	4	TC*						3.9			4.3		5.0		3.3		2.8		1.2								3.6					82%T		
79	14	UC		0.2																												**		
80	4	TC*						3.4			4.9		4.4		3.5		2.1		1.2								3.3					72%T		
80	7	UC		0.2	0.5	1.4																					0.7					**		
81	4	TC*						3.9			4.1		4.3		4.4		2.8		0.9								3.5					76%T		
82	4	TC*						3.7			5.4		4.7		3.4		2.6		1.4								3.7					82%T		
83	4	TC*						3.3			5.2		4.5		4.0		2.7		0.9								3.6					82%T		
84	4	TC*						3.3			5.4		5.0		4.8		3.1		1.2								4.0					87%T		
85	4	TC*										3.8																				85%T		
85	7	UC		0.2	0.6	1.2																					0.7					**		
86	4	TC*										4.0																				82%T		
86	16	UC																														**		
87	4	TC*										4.0																				81%T		
87	17	UC																														**		
88	4	TC*										4.2																				89%T		
89	4	TC*										4.0																				81%T		
89	18	UC																														**		
90	4	TC*										4.1																				80%T		
90	7	UC		0.1	0.4	1.3																					0.6					**		
91	4	TC*										4.1																				78%T		
91	26	TC*						3.9			5.2		6.5		2.8												4.5					92%T		
92	4	TC*										3.9																				84%T		
92	20	UC						1.8																								**		
92	26	TC*						3.0			6.0		5.9		1.9											4.1						97%T		
93	4	TC*										4.3																				87%T		
94	4	TC*										3.7																				80%T		
94	26	TC*						3.7			4.9		4.8		2.8											3.9						84%T		
95	4	TC*										3.7																				79%T		
95	7	UC		0.1	0.5	1.1																				0.6						**		
95	21	UC					1.4																									**		
97	15	UC		0.1		0.8																										**		
99	21	UC					2.1																									**		
03	4	TC*										2.8																				68%T		
03	21	UC					1.5																									**		
05	27	UC*					2.4				3.0		3.0		1.2											2.6						78%T		
06	4	TC*										2.8																				68%T		
07	21	UC					0.9																									**		
08	4*	TC										2.4																				63%T		
08	27	UC*					1.9				2.2		2.6		1.1											2.2						59%T		
09	4	TC*										2.0																				55%T		
11	21	UC					0.2																									**		

Source: *Notes on sources of survey data*, p53
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*, p53
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 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64			65 - 69	70 - 74
73	4	TC*						5.7			8.6		8.8		8.6		6.7		3.8			7.2	93%T
74	4	TC*						6.1			9.3		8.6		10		7.6		4.9			7.9	89%T
75	4	TC*						5.1			8.7		9.0		9.3		8.0		5.5			7.5	84%T
76	4	TC*						6.3			8.8		8.4		8.7		6.2		4.4			7.4	85%T
77	4	TC*						5.5			8.7		9.9		8.7		7.1		4.7			7.5	81%T
78	4	TC*						5.1			9.6		8.3		6.8		6.3		5.5			7.1	84%T
79	4	TC*						5.4			9.0		8.6		8.4		6.7		4.8			7.3	82%T
80	4	TC*						5.7			8.6		7.5		9.8		7.9		6.1			7.6	72%T
81	4	TC*						5.2			8.6		9.8		8.4		6.2		5.6			7.5	76%T
82	4	TC*						5.2			7.1		8.5		6.6		7.6		5.3			6.9	82%T
83	4	TC*						5.0			7.7		9.5		8.0		9.5		5.5			7.7	82%T
84	4	TC*						5.2			7.1		9.1		7.9		6.9		6.4			7.3	87%T
85	4	TC*											7.3										85%T
86	4	TC*											7.3										82%T
87	4	TC*											7.1										81%T
88	4	TC*											7.2										89%T
89	4	TC*											6.9										81%T
90	4	TC*											6.8										80%T
91	4	TC*											6.7										78%T
91	26	TC*						4.3			6.8		8.1				4.9					6.1	92%T
92	4	TC*											6.5										84%T
92	26	TC*						2.5			7.6		7.6				5.8					6.1	97%T
93	4	TC*											6.6										87%T
94	4	TC*											6.4										80%T
94	26	TC*						4.6			6.3		5.1				5.2					5.4	84%T
95	4	TC*											6.2										79%T
03	4	TC*											5.8										68%T
05	27	UC*						3.1			4.8					5.5			1.8			4.3	78%T
06	4	TC*											5.1										68%T
08	4*	TC											4.8										63%T
08	27	UC*						3.5			4.8					5.7			1.5			4.6	59%T
09	4	TC*											4.7										55%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. 53
 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. 53
 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
73	4	TC*							4.2			5.2		4.4		3.5		2.1		1.2			3.4	93%T
74	4	TC*							4.9			4.9		5.0		4.2		2.1		0.8			3.6	89%T
75	4	TC*							4.5			5.9		4.9		4.7		3.3		0.6			4.2	84%T
76	4	TC*							4.6			4.8		4.8		4.8		2.7		1.2			3.9	85%T
77	4	TC*							4.4			5.9		4.8		4.3		2.5		1.5			3.9	81%T
78	4	TC*							4.4			5.7		5.0		4.9		2.4		1.6			4.1	84%T
79	4	TC*							4.8			5.3		6.1		4.0		3.4		1.5			4.4	82%T
80	4	TC*							4.7			6.8		6.1		4.9		2.9		1.7			4.6	72%T
81	4	TC*							5.1			5.4		5.6		5.8		3.7		1.2			4.6	76%T
82	4	TC*							4.5			6.6		5.8		4.2		3.2		1.7			4.5	82%T
83	4	TC*							4.0			6.3		5.5		4.9		3.3		1.1			4.4	82%T
84	4	TC*							3.8			6.2		5.8		5.5		3.6		1.4			4.6	87%T
85	4	TC*												4.5										85%T
86	4	TC*												4.9										82%T
87	4	TC*												5.0										81%T
88	4	TC*												4.7										89%T
89	4	TC*												4.9										81%T
90	4	TC*												5.1										80%T
91	4	TC*												5.2										78%T
91	26	TC*							4.3			5.7		7.1				3.1					4.9	92%T
92	4	TC*												4.7										84%T
92	26	TC*							3.1			6.2		6.1				1.9					4.2	97%T
93	4	TC*												4.9										87%T
94	4	TC*												4.7										80%T
94	26	TC*							4.4			5.8		5.7				3.3					4.7	84%T
95	4	TC*												4.8										79%T
03	4	TC*												4.1										68%T
05	27	UC*							3.1			3.8				3.8				1.5			3.4	78%T
06	4	TC*												4.1										68%T
08	4*	TC												3.8										63%T
08	27	UC*							3.2			3.7				4.5				1.9			3.7	59%T
09	4	TC*												3.7										55%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. 53
 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. 53
 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	
1954	2	TC+A			53	25	73	23	7.1	10					(3.4 1.3)
1955	1	A					66	25							
1960	1	A					63	25							
1961	1	A					63	26							
1962	1	A					61	25							
1963	1	A					61	26							
1964	1	A					55	24							
1965	1	A					55	24							
1966	1	A					58	28							
1967	1	A					57	28							
1968	1	A					58	30							
1969	1	A					57	32							
1970	1	A					56	33							
1971	1	A					52	31							
1972	1	A					52	34							
1973	1	A					53	35							
	3	UC			46	37									(6.1 3.9)
	4	TC+A					49	31	6.3	3.0	93				6.8 3.3
	4	A					59	41							
1974	1	A					51	34							
	4	TC+A					51	31	6.6	3.1	89				7.4 3.5
	4	A					58	40							
1975	1	A					51	37							
	4	TC+A					47	31	6.0	3.2	84				7.2 3.8
	4	A					57	40							
1976	1	A					52	35							
	4	TC+A					47	30	5.9	3.1	85				6.9 3.6
	4	A					55	39							

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	
1977	1	A			47	37									
	4	TC+A			43	28	5.8	3.0	81			7.1	3.7		
	4	A			54	39									
1978	1	A			49	38									
	4	TC+A			44	29	5.5	3.1	84			6.6	3.8		
	4	A			53	38									
1979	1	A			47	37									
	4	TC+A			42	30	5.6	3.2	82			6.8	3.9		
	4	A			52	38									
1980	1	A			46	37									
	4	TC+A			41	28	5.1	3.1	72			7.1	4.2		
	4	A			50	37									
1981	1	A			44	36									
	4	TC+A			39	28	5.3	3.2	76			6.9	4.1		
	4	A			48	38									
1982	1	A			44	37									
	4	TC+A			39	31	5.2	3.3	82			6.3	4.1		
	4	A			48	38									
1983	1	A			44	38									
	4	TC+A			41	29	5.8	3.2	82			7.0	3.9		
	4	A			48	38									
1984	1	A			44	38									
	4	TC+A			40	30	5.7	3.5	87			6.6	4.1		
	4	A			49	37									
1985	1	A			44	37									
	4	TC+A			41	29	5.8	3.5	85			6.8	4.1		
	4	A			48	38									
1986	1	A			44	38									
	4	TC+A			38	28	5.6	3.6	82			6.8	4.4		
	4	A			48	39									
1987	1	A			45	40									
	4	TC+A			39	30	5.4	3.6	81			6.7	4.5		
	4	A			48	40									
1988	1	A			41	39									
	4	TC+A			40	32	6.0	3.7	89			6.7	4.2		
	4	A			47	39									

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	M	F	
1989	1	A					42	38									
	4	TC+A					36	30	5.2	3.6	81			6.4	4.4		
	4	A					46	39									
1990	1	A					41	38									
	4	TC+A					35	30	5.1	3.6	80			6.4	4.5		
	4	A					45	38									
1991	1	A					40	36									
	4	TC+A					34	29	4.9	3.6	78			6.3	4.7		
	4	A					44	38									
	26	MC +TC +A	16	22	38	39	40	39	5.6	4.5	92			6.1	4.9		
1992	1	A					41	37									
	4	TC+A					36	28	5.1	3.5	84			6.1	4.2		
	4	A					46	39									
	26	MC +TC +A	18	23	42	37	45	37	6.0	4.1	97			6.1	4.2		
1993	1	A					40	38									
	4	TC+A					36	31	5.4	3.8	87			6.2	4.4		
	4	A					46	39									
1994	1	A					39	37									
	4	TC+A					34	28	4.7	3.3	80			5.9	4.2		
	4	A					46	40									
	26	MC +TC +A	17	22	35	36	36	36	4.5	4.0	84			5.4	4.7		
1995	1	A					41	37									
	4	TC+A					32	28	4.6	3.3	79			5.8	4.2		
	4	A					45	39									
1996	1	A					42	36									
	4	A					34	29									
	4	A					45	40									
1997	1	A					40	39									
	4	A					33	29									
	4	A					44	39									
1998	1	A					38	37									
	4	A					33	28									
	4	A					43	39									
	27	A					33	29									
	27	A					43	39									
1999	4	A					31	28									
	4	A					42	39									

Table 8 (continued/3)

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 number/ person/day	Total cigarettes ⁹ number/ person/day				
						M	F	M	F	M	F	M	F			
2000	4	A			30	28										
	4	A			41	38										
2001	4	A			29	27										
	4	A			40	36										
2002	4	A			28	25										
	4	A			39	35										
	27	A			27	26										
	27	A			39	36										
2003	4	TC+A			26	23	3.7	2.5	68			5.4	3.7			
	4	A			38	34										
2004	4	A			26	22										
	4	A			36	32										
2005	4	A			24	22										
	4	A			35	32										
	27	UC+A			24	23	3.4	2.5	78			4.3	3.2			
	27	A			35	32										
2006	4	TC+A			23	21	3.2	2.5	68			4.7	3.7			
	4	A			33	31										
2007	4	A			21	20										
	4	A			30	29										
2008	4	TC+A			20	19	2.9	2.2	63			4.5	3.4			
	4	A			30	27										
	27	UC+A			20	19	2.6	2.1	59			4.4	3.5			
	27	A			30	28										
2009	4	TC+A			20	18	2.4	1.8	55			4.4	3.3			
	4	A			30	26										
2010	4	A			18	17										
	4	A			29	26										
2011	4	A			16	16										
	4	A			27	26										

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.

2 See *Notes on sources of survey data*, p. 53.

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.

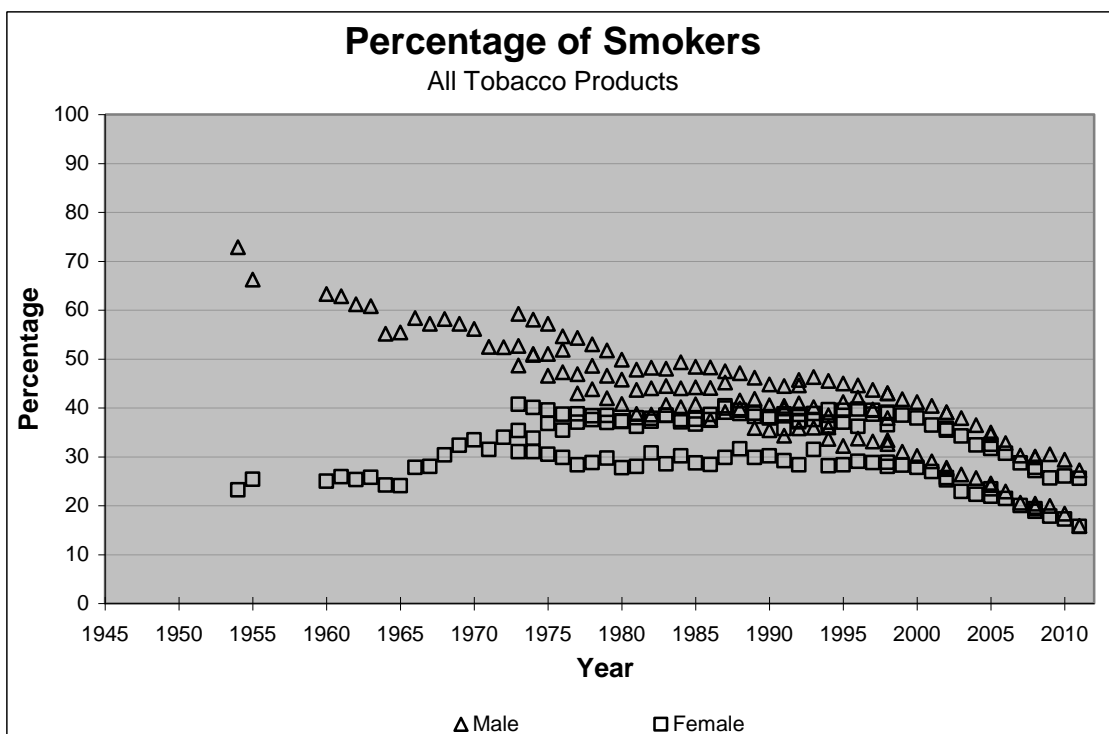
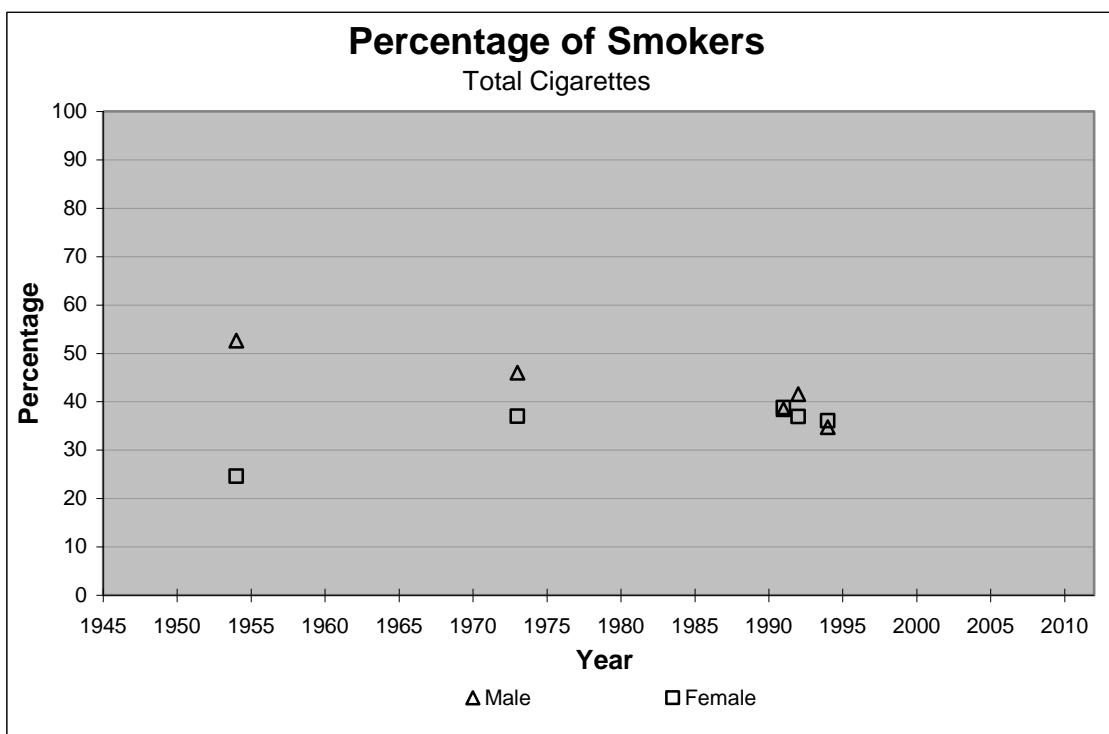
7 Estimated from data in Table 6 (see also extended version of Table 6 in the Excel tables workbook)

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.

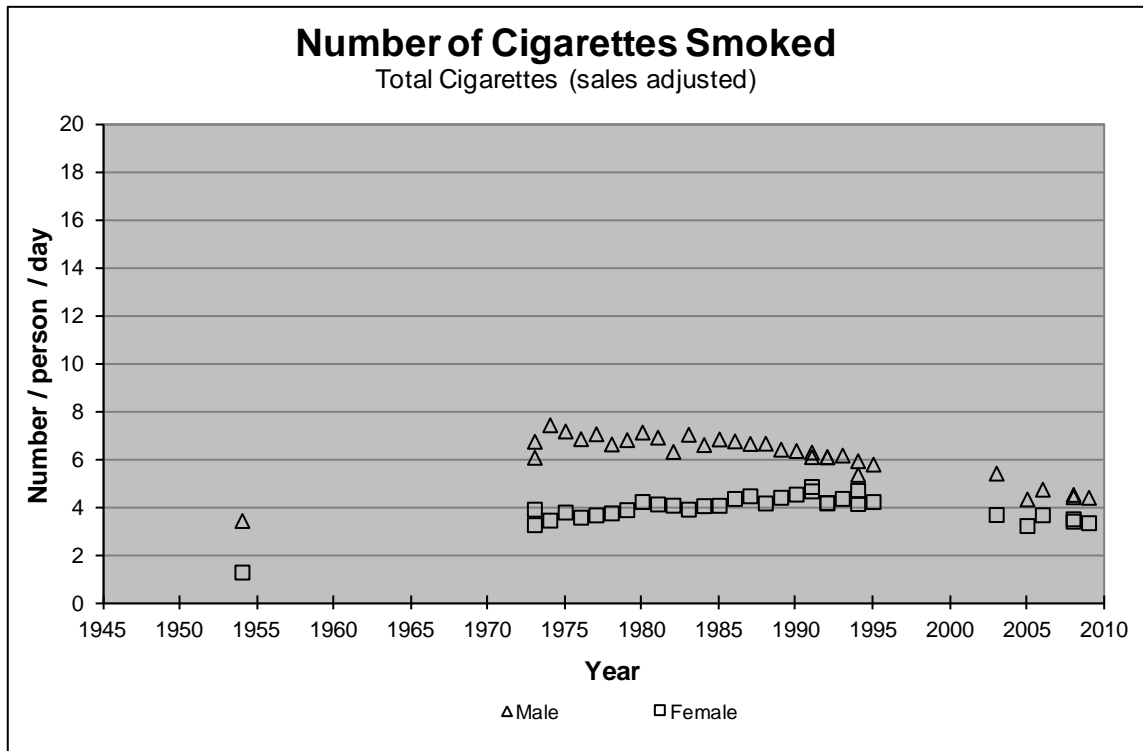
10 All tobacco products, grams/person/day.

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



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

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



Source: Table 8.

Table 9M Prevalence of use of snus, males: selected surveys by age
(continues on p. 46)

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
85	7 S	*			1	2	7																	
85	7 S	A			10	17	25																	17
86	16 S	R								10														
86	16 S	A								33														
87	4 S	R								6			2	2	2	3	7							
87	4 S	A								14			4	4	4	5	13							
87	17 S	R										13												
90	7 S	*		0	2	3																		
90	7 S	A		5	10	15																		10
90	22 S	R								0														
91	22 S	R								0														
92	22 S	R								1														
93	22 S	R								3														
94	4* S	R								4			5	3	3	2	4							3
94	4* S	A								15			11	5	5	3	6							7
94	22 S	R								4														
95	7 S	*		0	1	3																		
95	7 S	A		5	12	20																		12
95	22 S	R								4														
96	22 S	R								3														
97	4* S	R								5			9	3	4	1	3							5
97	4* S	A								18			16	7	6	2	7							10
97	22 S	R								4														
98	22 S	R								6														
98	23 S	R											7											
98	23 S	A											33											
99	22 S	R								7														
00	7 S	*		1	4	5																		
00	7 S	A		7	17	23																		16
00	22 S	R								7														
01	22 S	R								8														
02	4* S	R								9			9	12	3	3	1							6
02	4* S	A								20			20	18	7	5	2							12
02	22 S	R								9														
02	23 S	R											11											
02	23 S	A											30											
02	24 S	*									6													
02	24 S	A									22													
03	22 S	R									11													
04	4* S	R								16			17	10	4	2	0							5
04	4* S	A								33			28	15	11	7	1							10
04	22 S	R								11														
04	25 S	R								6	14	15	18	14										13
04	25 S	A								12	19	20	23	19										18
05	4* S	R								17			19	11	6	2	0							9
05	4* S	A								34			28	15	11	6	1							16
05	7 S	*		1	3	8																		
05	7 S	A		5	15	29																		16
05	22 S	R								13														

Table 9F Prevalence of use of snus, females: selected surveys by age
(continues on p. 47)

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+	
85	7	S	*		1	0	0																			
85	7	S	A		2	3	5																			3
86	16	S	R																							
86	16	S	A																							
87	4	S	R																							
87	4	S	A																							
87	17	S	R																							
90	7	S	*		0	0	0																			
90	7	S	A		1	2	4																			2
90	22	S	R					0																		
91	22	S	R					0																		
92	22	S	R					0																		
93	22	S	R					0																		
94	4*	S	R																							
94	4*	S	A																							
94	22	S	R					0																		
95	7	S	*		0	0	0																			
95	7	S	A		1	2	4																			3
95	22	S	R					0																		
96	22	S	R					0																		
97	4*	S	R																							
97	4*	S	A																							
97	22	S	R					0																		
98	22	S	R					0																		
98	23	S	R							1																
98	23	S	A							10																
99	22	S	R					0																		
00	7	S	*		0	0	0																			
00	7	S	A		1	2	3																			2
00	22	S	R					0																		
01	22	S	R					0																		
02	4*	S	R								0															
02	4*	S	A								1															
02	22	S	R					0																		
02	23	S	R							0																
02	23	S	A							3																
02	24	S	*					0																		
02	24	S	A					4																		
03	22	S	R						1																	
04	4*	S	R																							
04	4*	S	A																							
04	22	S	R					2																		
04	25	S	R					0	1	2	0	2														1
04	25	S	A					1	3	4	2	3														2
05	4*	S	R									0														
05	4*	S	A									1														
05	7	S	*		0	0	0																			
05	7	S	A		1	4	10																			5
05	22	S	R					2																		

Table 9M (continued from p. 44)
Prevalence of use of snus, 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
06	22	S	R	13																				
06	23	S	R						17															
06	23	S	A						37															
07	22	S	R	14																				
07	25	S	R						10	15	27	25	31											22
07	25	S	A						14	17	31	29	34											25
08	4*	S	R	17					19		14		5		2		2						10	
08	4*	S	A	30					30		20		10		5		3						17	
08	22	S	R	14																				
08	27	S	R	18					18				5				3				11			
08	27	S	A	31					25				9				4				17			
09	4	S	R	21					16		16		8		5		1						11	
09	4	S	A	33					25		24		10		7		2						17	
10	4	S	R	25					15		16		8		4		0						12	
10	4	S	A	35					28		23		12		7		3						18	
11	4	S	R	25					22		15		9		6		1						13	
11	4	S	A	41					32		24		12		9		3						20	

Source: see *Notes on sources of survey data*, p. 53
Product: S = snus

Frequency: A = all snus users (including occasional)
R = regular or daily snus users
U = unspecified

* = refer to *Notes on sources of survey data*, p. 53
All ages: relates to ages reported; as given in original source

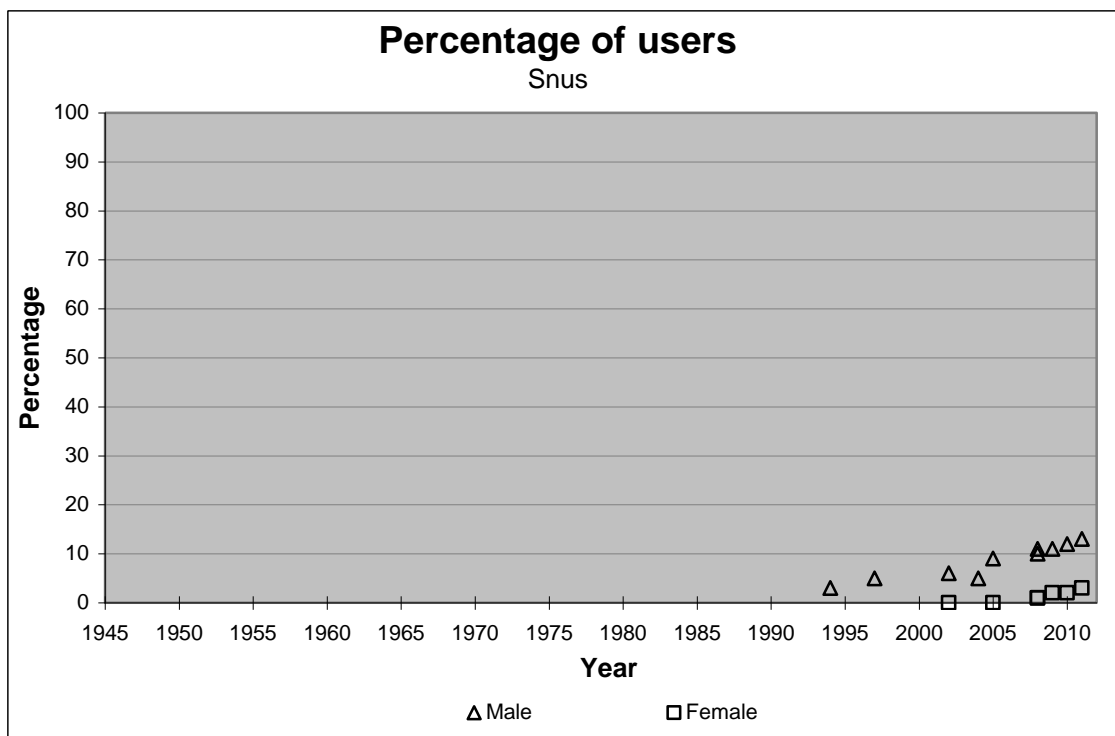
Table 9F (continued from p. 45)
Prevalence of use of snus, females

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+		
06	22	S	R					4																			
06	23	S	R								1																
06	23	S	A								9																
07	22	S	R					4																			
07	25	S	R				4	5	6	7	4																5
07	25	S	A				5	8	10	8	6																7
08	4*	S	R					5			1	1	1	0	0												1
08	4*	S	A					13			4	3	2	1	1												3
08	22	S	R					6																			
08	27	S	R					5			1			0							0						1
08	27	S	A					14			3			1							1						3
09	4	S	R					7			1	1	0	0	0												2
09	4	S	A					18			7	3	1	1	0												5
10	4	S	R					8			2	1	0	1	0												2
10	4	S	A					16			6	3	2	2	0												5
11	4	S	R					11			3	1	2	0	0												3
11	4	S	A					22			10	2	4	1	0												6

Source: see *Notes on sources of survey data*, p. 53
Product: S = snus

Frequency: A = all snus users (including occasional)
R = regular or daily snus users
U = unspecified
* = refer to *Notes on sources of survey data*, p. 53
All ages: relates to ages reported; as given in original source

Figure 5 Estimated prevalence of daily snus use by year of survey.
Males and females aged 15 years and over



Source: Table 9.

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. 63 under *References*.

Sales data before 1974

RP6 (Lee (1975))

See Table 1.1. Data by weight, originally given to nearest 100 000 pounds, have been converted to tonnes and given to the nearest 10 tonnes (100 000 lbs = 45.359 tonnes). For 1970-1973, cigars included the following numbers of cigarlets:

Year	Cigarlets (millions)
1970	30
1971	20
1972	18
1973	15

Notes as given in RP6:

(a) Details of the number and weight of cigarettes and cigars and of the weight of smoking tobacco, chewing tobacco and snuff consumed were obtained from Tobakkindustriens Felleskontor, Oslo. The sources used were *Norges Industri* for details of production, and *Norges Handel* for import statistics, both published by the Central Bureau of Statistics of Norway.

Alternative data for manufactured cigarettes from Kvam (1999) for the period 1939-1973 (not shown) do not exactly agree with data from RP6 (quantities in RP6 are 20-30% lower in 1944-45 and 10-15% higher in 1948-52).

Sales data for 1974 onwards including estimated cross-border sales

1974-1994: Kvam (1999)

1995-2011: Helsedirektoratet (2012)

Table 1.2 shows data for sales within Norway. Up to 1994, the data were supplied by the tobacco industry. From 1995 onwards, the data used were supplied by customs and excise. For years in which data are available from both sources (1995-1998) the values are virtually identical.

Table 1.2 also shows estimates of cross-border sales – see *Estimated cross-border sales*, p49

Data for manufactured cigarettes are given in numbers and have been converted to weight assuming an average of 1 g per cigarette. This factor was recommended by Statens Tobakkskaderåd (National Council on Smoking and Health), on the basis of data on the weight of cigarettes around 1970. However, the weight of cigarettes appears to have reduced since then. Bjartveit (1990) gave the weight of one manufactured cigarette as not more than 0.8 g, based on their own measurements at the time of writing. Heiberg (1990b) and Helleve *et al* (2010) state that although the weight of a cigarette has reduced in recent decades, and is currently thought to be around 0.7 g (Helleve *et al* (2010)), the weight is still assumed to be 1 g in all official statistics. (Data in RP6 imply a factor of 1.1 g per cigarette for 1955-1973.)

Estimated cross-border sales

1961-1996: Kvam (1999), Wicklin (1998)

See Table 1.3. Following increases in excise duties in 1980 and 1981, many Norwegians started buying cigarettes and pipe and hand-rolling tobacco in Sweden where prices were much lower.

Estimates from Kvam (1999) of tax-free and cross-border sales to Norwegians are shown in Table 1.3. They are available only for all products combined. For 1974-1996, these estimates are also shown in Table 1.2, for inclusion in the total of all tobacco products.

For 1970-1996 Table 1.3 also shows estimates of cross-border sales of pipe and hand-rolling tobacco, available from Wicklin (1998).

Making the assumptions that cross-border sales of pipe and hand-rolling tobacco were negligible for 1961-1969, and that cross-border sales of cigars, chewing tobacco and snus were negligible throughout 1961-1996, we subtracted the values provided by Wicklin (1998) from those given by Kvam (1999) to give estimated cross-border sales of manufactured cigarettes.

We then added the number of manufactured cigarettes sold within Norway (as shown in Tables 1.1 and 1.2) to give adjusted total sales of manufactured cigarettes. These values are used in Table 2 for the years 1961-1996.

We have not attempted to estimate cross-border trade in hand-rolled cigarettes because, for these years, we base our estimates of numbers of hand-rolled cigarettes on sales of cigarette papers, which we assume are generally bought in Norway (see Table 1.5 and *Cigarette paper sales*, p. 50).

1997-2011: Lund (2004), Lindbak and Lund (2007), Helleve *et al* (2010)

See Table 1.4.

In the periods 1990-1993 and 1997 onwards, nationally representative surveys of daily smokers aged 16-74 years, conducted by Statistics Norway, asked the subjects about the source of their cigarettes using the question "How many of the cigarettes you smoked in the last 24 hours were bought in ..." followed by a list of possible source countries including Norway and categories such as "other foreign countries". In later years the annual Tobacco Use Survey also asked snus users where they last bought a pack of snus. We consider cigarettes and snus separately and then combine the data into estimates of total cross-border sales.

For cigarettes, Helleve *et al* (2010) provided estimates for 1997-2009 of the proportions bought in Norway. In Table 1.4 we show the proportion bought outside Norway, calculated as 100 minus the values provided. We have assumed that the 2009 value can also be used for 2010 and 2011. Further assuming that the proportions apply equally to manufactured and hand-rolled cigarettes, assuming 1 g per manufactured or hand-rolled cigarette and using estimated numbers of hand-rolled cigarettes (see *Estimates of numbers of hand-rolled cigarettes*, p. 51), we split the total estimated cross-border trade in cigarettes between the two cigarette types. The resulting adjusted numbers of manufactured and hand-rolled cigarettes are used in Table 2.

For snus, Lindbak and Lund (2007) provide estimates for 2004-2006 and Helleve *et al* (2010) provide estimates for 2007-2009 of the proportions bought in Norway. In Table 1.4, we show the proportion bought outside Norway, again calculated as 100 minus the values provided. The proportions shown in italics for 1997-2003 and 2010-2011 are assumed values. We used these proportions to estimate the tonnes of snus used in Norway but bought outside the country.

The estimates of cross-border sales of cigarette and snus are then summed to give estimates of total cross-border sales, which are also shown in Table 1.2, for inclusion in the total of all tobacco products.

The estimated values may under-estimate the true scale of cross-border trade into Norway. The surveys in 1990-1993 (Lund (2004)) gave the following:

Year	Proportion of cigarettes bought	
	in Norway	outside Norway
1990	91	9
1991	89	11
1992	87	13
1993	88	12

These values represent somewhat lower amounts of cross-border cigarette trade than are shown in Table 1.3 for these years. Some survey subjects may be reluctant to admit buying tobacco in other countries.

Cigarette paper sales

1939-1984: Løchsen (1985)

1985-2010: Helleve (2011)

See Table 1.5. The data are based on statistics supplied by customs and excise for domestic sales only.

Estimates of numbers of hand-rolled cigarettes

1939-1996: We have taken as our estimate of hand-rolled cigarette consumption 90% of cigarette paper sales.

See *Cigarette paper sales*, p50.

These estimates (if taken with the further assumption of 1 g per cigarette) appear consistent with statements by Mørck *et al* (1982) that about 90% of pipe and hand-rolling tobacco is accounted for by hand-rolled cigarettes, and that hand-rolled cigarettes as a percentage of all cigarettes rose from 10% before the Second World War to 60-70% in 1982. They also agree with Kreyberg (1954) who implied the following proportions of hand-rolled tobacco out of pipe and hand-rolling tobacco combined:

Year	% hand-rolled of all loose tobacco
1939	5
1946	18
1947	19
1948	11
1949	28
1950	30
1951	28

Estimates of hand-rolled cigarette consumption in the latest available year were also given in the introductions to successive editions of RP6 (Beese (1968, 1972), Lee (1975)):

Year	Annual (millions)	Number/ adult/day
1966	2 908	2.8
1970	3 283	3.1
1973	3 470	3.2

These estimates are within 3% of those given in Table 2.

Dymond (1996) reported that 88% of consumer-made cigarettes were made by hand-rolling, with 11% being made by tubing and only 1% by machine-rolling. The Coresta task force on roll-your-own (fine cut) tobacco (1999) also reported this survey (giving 1990 as the date of the survey) and reported their own survey in 1994 and one conducted by J.L. Tiedemanns in 1995, the last two each based on 40 subjects. Data on the weight of hand-rolled cigarettes were:

Survey	Mean weight of tobacco (mg)	Range of weights (mg)
1990, Dymond (1996)	900	800-1 000
1994, CORESTA study	1 070	740-1 390
1995, Tiedemanns study	880	530-1 310

Note that the CORESTA study makes no claim to be representative of general rolling habits.

1997-2012: Kvam (1999), Helleve (2011), Helsedirektoratet (2012)

Kvam (1999) stated that 90-95% of pipe and hand-rolling tobacco was used for roll-your-own in 1999. Helleve (2011) and Helsedirektoratet (2012) gave sales figures consistent with earlier sources but describe the pipe and hand-rolling category as simply hand-rolling tobacco. This suggests that use of pipes has become negligible in recent years. We have therefore used the following proportions of sales within Norway to derive numbers of hand-rolled cigarettes, assuming 1 g per cigarette:

Year	Proportion of pipe and hand-rolling tobacco used for hand-rolling
1997-1999	95%
2000	96%
2001	97%
2002	98%
2003	99%
2004 onwards	100%

The resulting estimates are lower than estimates based on 90% of sales of cigarette papers in these years.

Plain/Filter cigarette sales

1961-1981: Maxwell, Jr. (Successive years)

1982-2004: US Department of Agriculture (accessed March 2011)

Menthol cigarette sales

Around 1999-2001, menthol cigarettes accounted for 3.1% of the total cigarette market (Giovino *et al* (2004) quoting ERC Group PLC (1999, 2001)).

Tar and nicotine machine yields of cigarettes

1970-1980: Mørck *et al* (1982)

1993: Smedslund and Götestam (1999) quoting Hauknes (1994)

Smedslund and Götestam (1999) quoting Hauknes (1994) gave comparisons of manufactured and hand-rolled cigarettes:

	Manufactured cigarettes mg/cigarette	Hand-rolled cigarettes mg/cigarette
Tar content	13.86	34.09
Nicotine yield	1.11	2.46
Carbon monoxide content	13.29	22.13

The estimate given here for the tar content of manufactured cigarettes is shown in Table 3 for 1993, but this date is approximate and the estimate may not be sales-weighted.

The Coresta task force on roll-your-own (fine cut) tobacco (1999) reported a survey conducted by J.L. Tiedemanns in 1995 among 40 users of hand-rolling tobacco. This gave, for hand-rolled cigarettes, mean tar of 17 mg (range 12-21 mg) and mean nicotine of 1.4 mg (range 1.0-1.8 mg).

From December 1995, the tar content of manufactured cigarettes was limited to 15 mg per cigarette, and this was reduced further to 12 mg per cigarette from the end of December 1997. Limits of 10 mg tar, 1 mg nicotine and 10 mg CO per cigarette came into force from 2003 (Ministry of Health and Care Services (1999, 2003)). These regulations are in line with the EU and EEA regulations (ASPECT (Analysis of the Science and Policy for European Control of Tobacco) Consortium (2004)).

Estimates of smuggling

Joossens and Raw (1998) quoting Lund (1990) estimated the contraband market share in Norway as 2%. According to Lund (2004), during the period 1997-2001 smuggled tobacco accounted for approximately 1%, or some 70 tonnes, of total annual tobacco consumption in Norway. More recent estimates indicated that it has remained at around this level (Edland-Gryt *et al* (2010)).

According to the United States Department of Agriculture (1999), in 1997 Norwegian Customs confiscated some 12 million cigarettes, although it was estimated that this represented only about 5% of the true number of cigarettes smuggled into the country. From these figures, it can be estimated that smuggled cigarettes comprised about 8% of the total cigarette consumption in Norway for that year.

Smokeless tobacco: snus and skrå

"Snus" (snuff) is a Scandinavian type of moist, smokeless tobacco with a low content of nitrosamines. "Snus" dominates the market today for smokeless tobacco in northern Europe. Until the early 1980s "skrå" (chewing tobacco) was common on the Norwegian market (Rutqvist and Lewin (2006)).

There is little information on the nitrosamine levels in the snus used in Norway. Österdahl *et al* (2004) gave details of the tobacco-specific *N*-nitrosamine levels in moist snuff on the Swedish market which, in 1983, included a single brand from Norway. For that year the Norwegian brand had a nitrosamine content of 39 µg/g while those from Sweden averaged 7.3 µg/g. As levels in Swedish brands have since fallen (e.g. 1.03 µg/g in 2002, Österdahl *et al* (2004)), and as Swedish Match have a large share of the Norwegian market (e.g. 74% in 2009, Esmerk Norwegian News (2010)) it seems likely that in recent years the average nitrosamine levels in the snus used in Norway have also fallen markedly.

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. 63 under *References*.

In other chapters of *International Smoking Statistics*, we do not usually include information specifically related to the use of smokeless tobacco. However as there has been considerable interest regarding smokeless tobacco, and in particular snus, in the medical and tobacco control literature, we have included an extra table in this chapter: Table 9 shows the prevalence of snus use (irrespective of smoking habits). The table layout is the same as in Table 4. Relatively little information is available on the joint distribution of smoking and snus use prevalence, and not in a standard form, so this is presented in the *Notes* for those sources which contribute to the main Tables, and under *Additional information (not presented in tables)*, p. 60 for other sources. The snus prevalence data are also shown in Figure 5 in a style comparable to Figure 3.

Source number

1 Mørck *et al* (1982), Eikeland (1990), Rønneberg *et al* (1994), Kvam (1999) quoting AC Nielsen Norge

- a. Market analysis of smoking habits carried out by the public opinion institute Norges Markedsdata (Market Data of Norway) and Nielsen Norge. Sample size (males) about 7 000, (females) about 7 000.
- b. Results are published twice a year, with the average presented here, except for results marked * against the source in Table 4 which are 3-year averages, reported against the middle year.
- c. Reporting survey results up to 1984, Røkevett (1985) reported the approximate distribution of cigarette types smoked as (%):

	Males	Females
Manufactured cigarettes only	15	33
Roll-your-own cigarettes only	60	50
Both roll-your-own and manufactured cigarettes	15	15

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

2 Kreyberg (1955) quoting Fakta

- a. Results of a market research survey. Year approximate, lower age limit unknown. Results presented here are averages over 4 urban/rural groups. Sample size (males) 1 969, (females) 2 096.
- b. Consumption per smoker and consumption per person are number of grams per day

3 Le Meitour-Kaplan (1977), quoting Nordic Research Association (1973)

- a. Survey conducted November-December 1973 in four Nordic countries. Total sample size 6 000. Age group unknown. See also Denmark source 3, Sweden source 4, and Finland source 8.
- b. Smokers: smoked 'yesterday'.

4 Lund (1988), Heiberg (1990a), Statens Tobakksskaderåd (National Council on Smoking and Health) (1996, 2000), Kraft and Svendsen (1997), Wicklin (1998), Statistics Norway (2000, 2012), Strong and Bonita (2003), Lund and Lindbak (2004, 2007), International Agency for Research on Cancer (2007), Lindbak and Lund (2007), Helleve *et al* (2010)

- a. Surveys by Statistisk sentralbyrå (Statistics Norway). Until 1991, part of the Manpower Survey (Arbeidskrafts Undersøkelse, AKU), with about 3 000 persons interviewed annually (personal interviews to 1980, then telephone interviews). From 1992, part of the Statistics

Norway Omnibus survey, with about 2 500 persons, reducing to 2 000 in 1995, primarily using personal interviews. Questions on tobacco prevalence remained the same over the years. Non-response varied, but was about 30%. In recent years, the questions were included in the Holiday and Travel Surveys which are nationally representative and carried out quarterly. Telephone surveys using computer-assisted interviewing. Response rate 55-65%. Sample size 4 500-5 000 per year.

- b. Results shown as Source 4* in Tables 4-7 and 9 are 3-year moving averages, presented against the middle year of the three. When available, single-year results are presented in the tables (Source 4 with no *) instead of these aggregated results.
- c. Regular smokers/snus users: smoked/used snus daily. During 1973-1984 the percentage of occasional smokers remained stable at around 10% for both men and women.
- d. Results presented for snus use in 1994 and 1997 are actually for snus and/or chewing tobacco use. One of the sources (Statens Tobakksskaderåd (National Council on Smoking and Health) (1996)) states that the two products could not be differentiated but that the majority were probably snus users. They add that "There is reason to believe that especially in the youngest age-groups there are few, if any, that use chewing tobacco."
- e. The types of cigarette smoked by adults aged 16-74 was distributed as (%):

	Years	Smoking intensity	Manufactured cigarettes only	Hand-rolled cigarettes only	Mixed	Total
Males	1993-1995		31	53	17	100
	1996-1998	Daily		54		
	2001-2003	Daily	40	44	16	100
	2004-2006	Daily	54	39	7	100
	2007-2009	Daily	56	34	10	100
		Occasional	88	7	5	100
Females	1993-1995		44	38	18	100
	1996-1998	Daily		36		
	2001-2003	Daily	64	28	8	100
	2004-2006	Daily	70	24	6	100
	2007-2009	Daily	72	21	7	100
		Occasional	95	4	1	100

In 1996-1998, among daily cigarette smokers, the distribution by type of cigarette and age was (%):

Age	Males			Females		
	Manufactured cigarettes only	Hand-rolled cigarettes only	Mixed	Manufactured cigarettes only	Hand-rolled cigarettes only	Mixed
16-24	46	27	27	74	10	16
25-34	42	41	17	61	30	9
35-44	31	54	15	43	39	18
45-54	28	61	11	35	45	20
55-64	15	82	3	32	54	14
66-74	9	85	6	47	44	9

- f. Dual use of smoking and snus was distributed as (%):

2001-2003

Men, aged 16-74

		Snus use		Total
		Current	Never	
Smoking	Current	4.5	27.9	32.5
	Ex-regular	4.0	22.4	26.3
	Never regular	4.5	36.6	41.2
Total		13.0	87.0	100

2004-2006

Men, aged 16-74

		Snus use			Total
		Daily	Occasional	Never	
Smoking	Daily	1.1	3.4	19.4	23.9
	Occasional	2.6	1.2	5.7	9.5
	Never	6.5	2.4	57.6	66.6
Total		10.2	7.1	82.7	100

2008-2009

		Snus use			Total
		Daily	Occasional	Never	
Men, aged 16-74					
Smoking	Daily	0.9	2.4	17.6	20.9
	Occasional	2.6	1.0	6.4	10.0
	Never	7.3	2.6	59.1	69.0
	Total	10.8	6.0	83.1	100
Women, aged 16-74					
		Snus use			Total
		Daily	Occasional	Never	
Smoking	Daily	0.1	1.0	19.2	20.3
	Occasional	0.3	0.5	7.4	8.2
	Never	1.0	1.4	69.1	71.5
	Total	1.4	2.9	95.7	100
Men, aged 16-44					
		Snus use			Total
		Daily	Occasional	Never	
Smoking	Daily	1.4	3.6	14.3	19.3
	Occasional	4.5	1.8	6.9	13.2
	Never	10.9	3.9	52.7	67.5
	Total	16.8	9.3	73.9	100
Women, aged 16-44					
		Snus use			Total
		Daily	Occasional	Never	
Smoking	Daily	0.1	1.5	16.7	18.3
	Occasional	0.7	0.9	9.1	10.7
	Never	1.7	2.3	67.1	71.1
	Total	2.5	4.7	92.9	100

- i. Calculation of consumption per person based on percentage smokers of any product and number of cigarettes per smoker, so may overestimate.
- m. Data for cigarette consumption per smoker from 1989 are taken from a chart.
- n. 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.
- o. Consumption category estimation (2008) based on 1-4, 5-9, 10-14, 15-19, 20+ cigarettes/smoker/day.

5 Nilsen (1959), Aarø *et al* (1981), quoting Nilsen (1967)

- a. Surveys conducted by Norwegian Cancer Society. In 1957, anonymous questionnaire survey carried out in various types of school throughout the country (about 5% of rural schools, 10% of urban schools and 20% of Oslo schools). Aimed to be representative of the school population (although not of the total age group, e.g. only 10% of 19-year-olds still attended schools). Sample size (males) 4 967, (females) 4 324. No details are available for the 1963 survey.
- b. Smokers marked as frequency *: smoked daily. All smokers: smoked daily or occasionally. Consumption per smoker relates to daily smokers.

6 Hermansen and Vellar (1974)

- a. Sample size (1971) 24 338, (1972) 24 162.
- b. Regular smokers: smoked daily.

7 Aarø *et al* (1981, 2008), Heiberg (1990a), Statens Tobakksskaderåd (National Council on Smoking and Health) (1996), Braverman *et al* (2001), International Agency for Research on Cancer (2007)

- a. National studies by Statens tobakksskaderåd (National Council on Tobacco and Health) and, from 2002, Sosial- og helsedirektoratet (Social and Health Directorate) involving all Norwegian pupils in the age group 12-15. Participation rate over 80%. Questions on tobacco prevalence remained the same over the years. Representative samples of the questionnaires were analysed, choosing pupils born on the sixth day of any month. Data are presented by school class or grade, so the age groups used in the tables are approximate because some pupils are held back or advanced in class/grade.

Year	Sample size
1975	5 160
1980	5 430
1985	5 146
1990	4 293
1995	4 104
2000	3 659
2005	4 813

- b. Smokers/snus users marked as frequency *: smoked/used snus daily.
c. Data shown in the *All ages* column refers to ages 13-15 only.
d. Dual use of smoking and snus among 15-16 year olds was given by Aaro *et al* (2008):

	Daily smoking and daily snus use	Daily smoking, but not daily snus use	Daily snus use, but not daily smoking	No daily use of tobacco
Boys				
1985	1.6	19.2	5.3	73.8
1990	0.8	16.1	1.9	81.2
1995	1.4	12.6	1.9	84.1
2000	1.8	13.0	3.3	81.9
2005	2.5	6.1	5.4	86.0
Girls				
1985	0.1	18.9	0.0	81.0
1990	0.0	19.8	0.0	80.2
1995	0.2	16.3	0.0	83.5
2000	0.2	17.7	0.0	82.1
2005	0.0	9.5	0.3	90.2

and, for boys only, aged 15-16 years (Aaro *et al* (2008)):

1985		Snus use			Total
		Daily	Occasional	Never	
Smoking	Daily	1.7	8.3	10.9	20.9
	Occasional	3.8	4.5	13.6	21.8
	Never	1.5	5.4	50.3	57.3
	Total	7.0	18.2	74.9	100
2005		Snus use			Total
		Daily	Occasional	Never	
Smoking	Daily	2.5	4.8	1.2	8.5
	Occasional	3.2	4.8	3.7	11.8
	Never	2.2	11.6	65.8	79.7
	Total	7.9	21.3	70.8	100

8 Geizerova and Masironi (1988)

- a. No original source. WHO Tobacco or Health Programme summary of surveys among children and adolescents.

9, 10 Zeiner-Henriksen (1976), Haenszel and Hougen (1972)

- a. Study conducted 1964-1965. Results shown as source **9** are from a sample representative of the whole country; sample size (males) 6 713, (females) 8 206, response rate 80%. Results shown as source **10** include additional samples in four counties (Finmark, Avst-Agder, Vest-Agder and Rogaland) and a sample of siblings of Norwegian-born migrants to the USA; combined sample size (males) 12 521, (females) 14 626; response rate in sibling sample 66%.
b. Among cigarette-only smokers (source 10), the distribution by type of cigarette was (%):

	Manufactured cigarettes only	Hand-rolled cigarettes only	Mixed
Males	15.8	70.0	14.2
Females	42.9	42.3	14.8

11 Pedersen *et al* (1969)

- a. Baseline of a study of male lung cancer in Finland and Norway, May 1962-Feb 1963. See also Finland, source 3. The Norwegian part of the study was conducted in 3 urban and 3 rural areas. Personal interviews at home or work. Sample size 4 092, response rate 87%. The results presented here are un-weighted averages over the areas surveyed.
- b. The proportion of cigarette smokers (including ex-cigarette smokers) reporting smoking only manufactured cigarettes was 5-50%, only hand-rolled 30-90%, and both types 3-15% in the sampled areas.
- c. Consumption category estimation based on 1-4, 5-9, 10-14, 15-19, 20-24, 25-29, 30+ cigarettes/smoker/day.

12 Leren *et al* (1975)

- a. Baseline of the Oslo study, health screening of 17 965 men (all Oslo men age 40-49 and a random sample age 20-39), 1972-1973.

Age	Sample size	Attendance rate (%)
20-24	382	33
24-29	591	43
30-34	393	49
35-39	397	62
40-44	7 427	65
45-49	8 775	65

- b. Consumption category estimation based on 1-4, 5-9, 10-14, 15-19, 20-24, 25+ cigarettes/smoker/day.

13 Thürmer and Bjartveit (1990)

- a. Based on methods of the Oslo study (source 12), all residents of 3 counties age 40-49 invited to attend National Health Screening Service, 1974-1978. Numbers attended (males) 16 963, (females) 16 148. Attendance rate (males) 90%, (females) 94%.

14 Tell *et al* (1984)

- a. Baseline of the Oslo Youth Study, conducted at six schools in Oslo. Anonymous questionnaire completed in class with teachers absent. Approximate ages corresponding to school grades 5 (not presented here), 6 and 7. Sample size 828 (after exclusion of non-Norwegians), response rate 82%.
- b. Smokers marked as frequency *: smoked daily. Results for cigarettes per smoker and cigarettes per person are for daily smokers.

15 Klepp *et al* (1991), King *et al* (1996), Currie *et al* (2000, 2004, 2008)

- 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.

Year	Target age	Mean age	Sample size
1983	13	13.4	1 265
	15	15.4	1 061
1985	13	—	1 302
	15	—	1 291
1989	13	13.4	1 633
	15	15.4	1 648
1993	13	13.5	1 701
	15	15.5	1 637
1997	13	13.5	1 623
	15	15.5	1 670
2001	13	13.5	1 739
	15	15.5	1 624
2006	13	13.5	1 585
	15	15.5	1 534

- b. Smokers marked as frequency *: smoked daily. Regular smokers: smoke once a week or more.
- c. There are minor discrepancies between the results presented here (Klepp *et al* (1991)) and those presented by other authors (Nutbeam *et al* (1989), van Reek *et al* (1990), King and Coles (1992)).

16-18 Surveys of conscripts. Twelve months military service is compulsory for males age 19 or 20. About 25% are excluded for medical or other reasons. Three months are spent at a training school in southern Norway, followed by 9 months service usually in Northern Norway near the Russian border (Schei *et al* (1990), Schei and Sjøgaard (1994)).

16 Schei *et al* (1990), Schei and Sjøgaard (1994)

- Survey among conscripts during last 9 months of military service in Northern Norway. Males only. Age range 18-25 with mean age 20.6 years. Sample size (of useable questionnaires) 2 112, response rate 90.4%.
- The sources note that prevalence of tobacco use (either as cigarettes or as snus) is higher than that found in surveys of the general population.
- Dual use of cigarette smoking and snus was distributed as (%):

		Snus use			Total
		Daily	Occasional	Never	
Smoking	Daily	2.0	19.4	29.8	51.2
	Occasional	4.5	1.3	5.4	11.2
	Never	3.9	2.3	31.5	37.6
Total		10.3	23.0	66.7	100

- Consumption category estimation based on 1-9, 10-19, 20+ cigarettes/smoker/day.

17 Samdal *et al* (1991)

- Survey among conscripts during their last 9 months of military service, in Northern Norway. 98% were aged 19-22. Sample size 1 511.
- 71% of the daily snus users were non-smokers.
- Consumption category estimation based on 1-10, 11-20, 21+ cigarettes/smoker/day.

18 Bovim *et al* (1990)

- Study of recruits interviewed at start of military service and after three months. Data presented here relate to start of service. Sample size 903. Year not stated.
- Age range 18-27, of whom 74% were age 19-20.
- Consumption category estimation based on 1-5, 6-10 and 11+ cigarettes/smoker/day.

19 Friestad and Klepp (1996)

- Representative sample of 13 year-old school pupils in county Hordaland, recruited in 1990 and followed up over four years. Initial sample size 1 195.
- Smokers marked as frequency *: smoked every day. All smokers: smoked every day or every week. The categories reported were daily, weekly, occasionally and never, so do not appear to have allowed for ex-smokers.

20 Lokeland *et al* (1993)

- Anonymous questionnaire study pupils at 19 schools in Bergen municipality. Approximate age corresponding to school grade 9. Sample size (males) 318, (females) 323.
- Smokers marked as frequency *: smoked daily. Regular smokers: smoked every day or every week.

21 Hibell *et al* (1997, 2000, 2004, 2009, 2012)

- Nationally representative survey forming part of ESPAD (European School Survey Project on Alcohol and Other Drugs). Survey of pupils in school grade 10, selecting those born within a target year, thus age 15-16 at the time of the survey. 98% or more of 15-16 year-olds were still in school in each survey year. Anonymous questionnaire completed and sealed in an envelope by the pupil, in class. Teachers present, but discouraged from walking round the classroom.

	Date	Sample size		Response rate (%)	Average age
		Males	Females		
1995	Mar-Apr 1995	1 979	1 931	91	—
1999	Mar 1999	1 980	1 811	90	15.2
2003	Mar-Apr 2003	1 945	1 888	87	15.7
2007	Mar-Apr 2003	1 778	1 704	89	15.8
2011	Apr-May 2011	1 498	1 440	88	15.8

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

22 Vedøy and Skretting (2009)

- a. Ungdom og rusmidler (Drug use among youth) by SIRUS (Statens institutt for rusmiddelforskning, National Institute of Drug Abuse). Nationally representative postal surveys of young people aged 15-20. Sample size 1 500-3 500 per year. Response rate reduced from 70% in the early years to 30-40% in more recent years. In 2008, in an attempt to increase response rates, subjects were given the option of giving their responses using the internet.
- b. Results presented are three-year moving averages.
- c. Regular smokers: smoked daily. Regular snus users: used snus daily.
- d. The data presented were taken from charts.

23 Lund *et al* (2007)

- a. Rusmiddelbruk blant unge voksne, 21-30 år (Drug use among young adults aged 21-30) by SIRUS (Statens institutt for rusmiddelforskning, National Institute of Drug Abuse). Postal surveys, response rate 40-50%.

Year	Sample size
1998	6 696
2002	7 292
2006	4 667

- b. Dual use of smoking and snus among men in 2006 was distributed as (%):

		Snus use				Total
		Daily	Occasional	Former	Never	
Smoking	Daily	2	8	2	6	18
	Occasional	5	4	1	3	13
	Former daily	4	2	3	3	12
	Former occasional	3	2	2	4	10
	Never	4	4	2	37	47
Total		17	20	9	54	100

24 Grotvedt *et al* (2008)

- a. School-based study among 10th grade pupils in 6 out of 19 counties in Norway. Participating counties were Oslo, two southern inland counties and three northern counties. Sample size (boys) 7 762, (girls) 7 768.
- b. The survey was carried out during 2000-2004. Results are presented against 2002.
- c. Smokers/snus users marked as frequency *: smoked/used snus daily.
- d. Dual use of smoking and snus was distributed as (%):

Boys		Snus use			Total
		Daily	Occasional	Never	
Smoking	Daily	1.0	6.4	6.4	13.8
	Occasional	1.8	3.5	7.3	12.6
	Never	3.0	5.8	64.9	73.7
Total		5.8	15.7	78.6	100

Girls		Snus use			Total
		Daily	Occasional	Never	
Smoking	Daily	0.0	1.9	14.8	16.7
	Occasional	0.1	0.8	16.2	17.1
	Never	0.0	0.7	65.5	66.2
Total		0.1	3.4	96.5	100

25 Overland *et al* (2008)

- a. Nationally representative cross sectional surveys of young people aged 16-20. Subjects were selected from the national population register by birth cohort. Telephone interviews.

Year	Sample size	Birth cohort	Participation rate (%)
2004	2 400	1984-1988	87
2007	2 415	1987-1991	67

- b. Regular smokers/snus users: smoked/used snus daily. All smokers/snus users: smoked/used snus at least weekly.
- c. Dual use of smoking and snus among 16-20 year olds was distributed as (%):

2004

Males	Snus use			Females	Snus use				
	Yes	No	Total		Yes	No	Total		
Smoking	Yes	5.3	14.8	20.1	Smoking	Yes	0.6	21.8	22.4
	No	13.2	66.7	79.9		No	1.8	75.8	77.6
	Total	18.5	81.5	100		Total	2.4	96.6	100

2007

Males	Snus use			Females	Snus use				
	Yes	No	Total		Yes	No	Total		
Smoking	Yes	6.5	10.4	16.9	Smoking	Yes	2.2	15.0	17.2
	No	18.2	64.8	83.0		No	5.1	77.7	82.8
	Total	24.7	75.2	100		Total	7.3	92.7	100

26 Reif and Melich (1995, 1998a, 1998b)

- a. Eurobarometer Surveys commissioned by the European Commission to monitor public opinion in the European Union. Norway was included as a candidate country for the surveys of 1991, 1992 and 1994. Some Eurobarometer surveys include questions on smoking habits. Sample size 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. The sample consisted of people aged 15 and over who were resident in the country and had the country’s nationality.
- d. Frequency U represents positive answers to questions such as “Do you smoke cigarettes?” or “You smoke packeted cigarettes”.
- e. 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.
- f. 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.

27 Roll-Hansen (1999), Hougen and Gløbøden (2004), Hougen (2006), Wilhelmsen (2009), Statistics Norway *et al* (2012)

- a. Samordnet levekårsundersøkelse (Health Interview Surveys: surveys of living conditions) by Statistisk sentralbyrå (Statistics Norway). Nationally representative of the population aged 16 and over. Interviews (face-to-face and by telephone) and a self-completion questionnaire. Yearly surveys but topics are rotated three-yearly.

Year	Interview period	Sample size	Response rate (%)
1998	Sep 1998 – Nov 1998	7 125	72.7
2002	Oct 2002 – Feb 2003	6 827	70.4
2005	Oct 2005 – Mar 2006	6 766	69.8
2008	Sep 2008 – Mar 2009	6 465	66.8

- b. The calculation of cigarettes per person was based on prevalence of smoking (product unspecified) and number of cigarettes per smoker, so may overestimate.
- 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.

Additional information (not presented in tables)**Additional prevalence data****Kreyberg (1954)**

Data collected in 1953 as the controls in a study of lung cancer in 7 groups of males and 5 groups of females. These data have not been presented in Table 4 because they include ex-smokers. However they are of interest, being of a very early date. Some results for prevalence of smoking are presented below. One group consisted of all persons (patients and

their accompanying friends or relatives) attending the Oslo First Aid Station. Sample size (males) 699, (females) 301. Other groups are not presented here individually as they were occupational groups, or had poor response rates or small sample sizes, but the aggregated results given by Kreyberg (1955) are shown. Sample size (males) 4 158 including 2 337 doctors, (females) 985 including 168 doctors. Only 3 women, all doctors, smoked products other than cigarettes.

Prevalence of smoking (%)

Oslo	Age					
	15-24	25-34	35-39	45-54	55-64	65-74
Male, TC A	72	81	82	66	55	25
Male, A A	75	89	90	84	81	71
Female	50	49	43	28	13	7
Aggregate		<35	35-44	45-54	55-64	65-84
Male		79	86	89	87	83
Female		41	39	31	13	10

TC, A defined as for Table 4.

*Additional data on types of tobacco product used***Engeland *et al* (1996)**

The Migrant study included a large representative cohort of people in Norway. Baseline data collected in 1964-1965 included, for daily cigarette smokers, information on the types of cigarette smoked (%):

	Manufactured only			Hand-rolled	Manufactured	Unknown	Total
	filter	non-filter	mixed	only	and hand rolled		
Males	5	15	1	62	11	6	100
Females	29	17	2	36	10	6	100

Wangen and Biørn (2001)

The Norwegian Surveys of Consumer Expenditures by Statistics Norway provide household expenditure data from 1975-1994. These surveys are of weekly expenditure and so may under-estimate the proportion of smoker households because some of these may not buy tobacco in any given week.

Year	Types of tobacco bought by the households (%)			
	None	Hand-rolling tobacco only	Manufactured cigarettes only	Both types of tobacco
1975	43.7	30.8	7.4	18.1
1976	42.5	29.5	7.6	20.4
1977	47.8	22.8	8.6	20.7
1978	51.4	20.9	8.3	19.4
1979	49.5	24.3	7.8	18.3
1980	51.0	23.3	8.3	17.3
1981	50.9	24.6	7.1	17.4
1982	51.4	26.2	7.8	14.6
1983	49.9	27.0	7.6	15.5
1984	51.0	24.8	7.8	16.4
1985	50.0	23.3	10.3	16.3
1986	49.9	20.8	12.5	16.8
1987	51.1	19.3	12.3	17.3
1988	52.6	19.0	11.9	16.5
1989	51.2	17.8	13.8	17.2
1990	53.0	18.0	12.0	17.0
1991	54.1	16.4	14.1	15.4
1992	52.4	15.8	13.7	18.1
1993	49.9	18.4	13.7	17.9
1994	56.0	15.5	14.1	14.4

Smedslund and Gøtestam (1999)

In 1994 a representative sample of Norwegians aged 19 and over, sample size 10 000, showed that, among tobacco users, the distribution of the types of tobacco used (%) was:

	Manufactured cigarettes	Hand-rolled cigarettes	Cigars	Pipe	Snuff	Combination of products
Male users	28.8	51.1	1.5	2.4	1.7	14.4
Female users	50.2	41.1	0.4	0.3	0.1	7.9

The education system in Norway

School type	Education year	Grade before 1997	Grade 1997 onwards	Age (approximate)
Kindergarten (Barnehage)				1-6
Primary (Barneskole)	2		1	6-7
	3	1	2	7-8
	4	2	3	8-9
	5	3	4	9-10
	6	4	5	10-11
	7	5	6	11-12
Lower secondary (Ungdomsskole)	8	6	7	12-13
	9	7	8	13-14
	10	8	9	14-15
Upper secondary (Videregående skole)	11	9	10	15-16
	12	10	11	16-17
	13	11	12	17-18
	14	12	13	18-19

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