TABLE 23.—Trends in public attitudes about smoking in the presence of nonsmokers

Survey	Year	Reference	Smokers should refrain from smoking in the presence of nonsmokers (percentage who agree by smoking status)				
			Current smokers	Former smokers	Never smokers	All nonsmokers	All adults
1. Gallup	1983	ALA 1987	55	70		82	69
2. Gallup	1985	ALA 1987	62	78		85	75
3. Gallup	1987	ALA 1987	64	76		86	77
4. NHIS[a]	1987		65	81	89		80

[a]Preliminary first-quarter data (unpublished). Year-end percentage for all adults is 80 percent.

NOTE: Actual questions:

1–3. Should smokers refrain from smoking in the presence of nonsmokers? (strongly agree, agree, disagree, strongly disagree, no opinion)*

4. If people want to smoke, they should not do so in indoor public places where it might disturb others. (strongly agree, agree, disagree, strongly disagree)*

*Percentages include those who "strongly agree" or "agree."

Actions When Smokers Light Up

Surveys conducted by the Roper Organization in 1974, 1976, and 1978 (Roper 1978) assessed actions of smokers when they are indoors with other people and want a cigarette, and actions of nonsmokers in response. Although these questions technically pertain to smoking behavior, the subject of the next chapter, they are indicators of attitudes toward smoking.

Smokers were asked, "Do you light up a cigarette without really thinking about it, or do you look around and then decide whether it's okay, or do you ask if others would mind, or do you just not smoke?" In 1978, a total of 57 percent either looked around and then decided (27 percent), or asked others (26 percent), or did not smoke (4 percent). Slightly lower total percentages for these three actions were reported in 1976 (55 percent) and 1974 (53 percent). The 1987 NHIS indicated that 21 percent of smokers would light up in a public place, while 26 percent would look around first, 15 percent would ask others, and 31 percent would refrain from smoking.

A total of 58 percent of *nonsmokers* in 1978 said that when someone is smoking indoors, they either ask the smoker to stop smoking (6 percent), indicate disapproval without saying so (10 percent), or try to move away (42 percent). In both 1974 and 1976, the total percentage for these three actions was 53 percent; other possible responses were: "doesn't matter," "enjoy it," "it depends," "and "don't know." According to the 1987 NHIS, fewer than 5 percent of nonsmokers would ask a smoker in public not to smoke (preliminary first-quarter data).

Opinions of Teenagers

According to recent surveys from the Monitoring the Future Project, most high school seniors think that smokers their age are trying to appear mature and sophisticated, and about half of teenagers think that smoking makes them look insecure (Table 24). Only 5 to 10 percent of respondents thought that smokers look cool, calm, in control; rugged, tough, independent; or mature and sophisticated. Most teenagers prefer to date people who do not smoke. Most also consider smoking a dirty habit and think that becoming a smoker reflects poor judgment. In 1986, 45 percent of teenagers strongly disliked being near people who were smoking while 37 percent did not mind being around people who were smoking. There appears to have been little change in these attitudes from 1981–86.

In summary, smokers and nonsmokers, adults and teenagers alike, generally believe that smokers should refrain from smoking in the presence of others and that it is annoying to be near a person who is smoking. In addition, teenagers are more likely to associate smoking and smokers with negative attributes than positive ones.

TABLE 24.—Trends in attitudes about smoking and smokers among high school seniors, 1981–86, Monitoring the Future Project, National Institute on Drug Abuse

	In my opinion, when a guy my age is smoking a cigarette, it makes him look . . . (percentage who agree)	
	1981	1986
like he's TRYING to appear mature and sophisticated	61	63
insecure	42	44
conforming	25	21
rugged, tough, independent	9	10
cool, calm, in control	6	6
mature, sophisticated	5	5

	In my opinion, when a girl my age is smoking a cigarette, it makes her look . . . (percentage who agree)	
	1981	1986
like she's TRYING to appear mature and sophisticated	65	65
insecure	47	50
conforming	27	22
independent and liberated	11	10
mature, sophisticated	7	5
cool, calm, in control	6	5

TABLE 24.—Continued

	Do you agree or disagree . . . (percentage who agree)	
	1981	1986
I prefer to date people who don't smoke	66	71
Smoking is a dirty habit	66	69
I think that becoming a smoker reflects poor judgment	57	59
I strongly dislike being near people who are smoking		45
I personally don't mind being around people who are smoking	38	37
The harmful effects of cigarettes have been exaggerated	16	16
Smokers know how to enjoy life more than nonsmokers	3	2

NOTE: Possible responses included agree, mostly agree, disagree, mostly disagree, neither. Percentages include those who "agree" or "mostly agree."
SOURCE: Johnston, Bachman, O'Malley (1982); Bachman, Johnston, O'Malley (1987).

Trends in Public Opinion About Smoking Policies

Overview

Background

This Section describes trends in public opinion about smoking policies. Public opinion information is helpful to legislators, public health officials, and other policymakers who often wish to know the degree of public support for an issue under consideration. The results presented in this Section are taken primarily from public opinion polls sponsored by a variety of private health organizations (Appendix).

This Section uses the categorization of policies employed in Chapter 7, including the following categories: (1) smoking restrictions, (2) restrictions on the sale and distribution of cigarettes, (3) policies pertaining to information and education, and (4) economic policies. Each section reviews trends in public opinion toward the policy and briefly describes the current status of opinions toward the policy with respect to the smoking status of the respondents.

Limitations of the Surveys in Assessing Public Opinion About Smoking Policies

Assessing trends in public opinion regarding smoking policies is more difficult in some ways than assessing trends in public knowledge regarding the health effects of smoking. For instance, surveys that ask about public opinion often refer to the "current" situation. However, the "current" situation may change from year to year and from survey to survey. For example, in 1964, 52 percent of adults thought that smoking should be allowed in fewer places than it was at that time. By 1975, 70 percent of adults thought that smoking should be allowed in fewer places than it was at that time. However, the "current" situation changed from 1964–75, making the survey results difficult to compare. Because smoking was already allowed in fewer places by 1975, the results of the 1975 survey reveal even greater support for limitations on smoking than indicated by the difference in percentages.

Restrictions on Smoking

General

Between 1964 and 1975, adults increasingly favored restrictions on smoking. In 1964, about half (52 percent) thought that smoking should be allowed in fewer places than it was at that time, compared with 70 percent by 1975 (Table 25). Comparable questions have not been asked to assess more recent trends since 1975. However, in 1986, 50 percent of adults disagreed that there were already enough restrictions on where people can smoke.

TABLE 25.—Trends in public opinion about restrictions on smoking in public places

Survey	Year	Reference	Smoking should be allowed in fewer places than it is now (percentage who agree by smoking status)				
			Current smokers	Former smokers	Never smokers	All nonsmokers	All adults
1. AUTS	1964	US DHEW 1969	34	56	68	65	52
2. AUTS	1966	US DHEW 1969	35	58	67	65	52
3. AUTS	1970	US DHEW 1973	42	61	68	66	57
4. AUTS	1975	US DHEW 1976a	51	77	82	80	70

Survey	Year	Reference	There are already enough restrictions on where people can smoke (percentage who DISAGREE by smoking status)				
			Current smokers	Former smokers	Never smokers	All nonsmokers	All adults
5. AUTS	1986	US DHHS, in press	23	53	63	59	50

NOTE: Actual questions:

1–4. The smoking of cigarettes should be allowed in fewer places than it is now. (strongly agree, mildly agree, no opinion, mildly disagree, strongly disagree)*

5. There are already enough restrictions on where people can smoke.(strongly agree, somewhat agree, neutral, somewhat disagree, strongly disagree) †

*Percentages include those who "strongly agree" or "mildly agree."

†Percentages include those who "strongly disagree" or "somewhat disagree."

Public Places

Table 26 presents data from five surveys conducted since 1978 that asked about opinions regarding restrictions on smoking in public places. Differences in the wording of the questions make comparisons among the surveys difficult. Two surveys solicited opinions about three mutually exclusive options (total ban on smoking, separate sections for smokers and nonsmokers, and no restrictions at all), two surveys asked for an opinion only about a total ban, and the fifth asked for an opinion only about "no smoking" sections.

The 1978 Gallup survey and the 1987 Harris survey both presented three options. The proportion of respondents favoring *either* a total smoking ban or separate sections was 84 percent in both. However, the percentage favoring a total ban increased from 16 to 23 percent. The 1987 and 1988 Gallup surveys showed that the percentages favoring a total ban were 55 and 60 percent, respectively (69 and 75 percent of nonsmokers, respectively); the option of separate sections was not presented in these surveys (Table 26).

Workplace

Questions used to assess opinions regarding smoking restrictions in the workplace have varied from year to year. It is not possible, therefore, to identify a clear trend, but the public has consistently shown support for policies that limit smoking in the workplace.

In 1966, 92 percent of adults thought that an employer had a right to tell employees when or where they can smoke while on the job (US DHEW 1969). In 1975, 78 percent of adults thought that management had the right to *prohibit* smoking in a place of business (US DHEW 1976a). By 1985, 87 percent of adults thought that companies should have a policy on smoking (80 percent of current smokers, 92 percent of nonsmokers). Most adults (79 percent) preferred assigning certain areas for smoking and nonsmoking as opposed to totally banning smoking at work (8 percent) (Gallup 1985).

Airplanes

Since 1978, it appears that more adults favor restricting smoking on airline flights. In a 1978 Gallup survey, 43 percent of adults thought a smoking ban should be imposed on commercial airline flights (Table 27). A 1987 AMA survey reported that 67 percent of adults thought that cigarette smoking should not be allowed on commercial airline flights. A 1987 survey conducted by the American Association for Respiratory Care (AARC) of 33,242 airline passengers in 39 States and 89 airports in the United States yielded similar results (AARC 1987) (Table 27).

According to the 1986 AUTS, 61 percent of respondents (82 percent of never smokers, 69 percent of former smokers, and 14 percent of current smokers) ask to be seated in the no-smoking sections of airplanes, restaurants, and other public places when given a choice (CDC 1988).

TABLE 26.—Trends in public opinion about restrictions on smoking in public places

Survey	Year	Reference	Smoking in public places[a]		
			% favoring total ban	% favoring separate sections	Total % favoring ban or sections
1. Gallup	1978	Gallup 1978	16 (22/8)	68 (67/70)	84 (89/78)
2. Lieberman	1986	Lieberman 1986		94 (95/93)	
3. Harris	1987	Harris 1988	23	61	84
4. Gallup	1987	Gallup 1987a	55 (69/25)		
5. Gallup	1988	Gallup 1988b	60 (75/26)		

[a]Percentages in parentheses refer to nonsmokers and current smokers, respectively.

NOTE: Actual questions:

1. In your opinion, which of the policies on this card should be followed with regard to smoking in such places as trains, buses, airplanes, restaurants, and offices? (There should be no restrictions at all on smoking in public places such as these; Special sections for smokers should be set aside in public places such as these; Smoking should not be allowed at all in public places such as these.)
2. Should public places have "no smoking" sections? (yes, no, no opinion)
3. Do you think that laws should prohibit smoking in public places, or should they require separate smoking and nonsmoking sections, or should smoking in public places not be regulated by law?
4-5. Would you favor or oppose a complete ban on smoking in all public places?

TABLE 27.—Trends in public opinion about restrictions on smoking in airplanes

Survey	Year	Reference	Smoking should not be allowed on commercial airline flights (percentage who agree by smoking status)				
			Current smokers	Former smokers	Never smokers	All nonsmokers	All adults
1. Gallup	1978	Gallup 1978	55			23	43
2. AMA	1987	Harvey and Shubat 1987	40			78	67
3. AARC[a]	1987	AARC 1987	30			74	64

[a]Survey of 33,242 airline passengers conducted in 39 States and 89 airports in the United States.

NOTE: Actual questions:

1. Do you think that cigarette smoking on commercial airplanes should or should not be banned completely?*
2. Do you feel that cigarette smoking should or should not be allowed on commercial airline flights?**

*Percentages are those who believe that cigarette smoking should be banned on flights.

**Percentages are those who believe that cigarette smoking should not be allowed on flights.

Restaurants

In four surveys, conducted between 1976 and 1987, approximately 20 percent of respondents favored a total ban on smoking in restaurants (Table 28). In contrast, most adults are in favor of *limiting* smoking in restaurants. A 1976 Roper poll indicated that 57 percent believed smoking should be restricted to certain areas in restaurants, while 22 percent favored a total ban on smoking. In a 1987 Gallup survey conducted for ALA, 74 percent of adults thought that certain areas should be set aside for smoking and 17 percent thought that smoking should be banned completely (ALA 1987; Gallup 1987a).

As mentioned above, 61 percent of respondents to the 1986 AUTS choose no-smoking sections of restaurants and other public places when given a choice (CDC 1988). In a survey conducted by the Gallup Organization for the National Restaurant Association in 1987, adults were asked about various opinions regarding smoking in restaurants: 61 percent overall said that they prefer to sit in a no-smoking section (83 percent of never smokers, 65 percent of former smokers, and 20 percent of current smokers) (Gallup 1987d).

Other Places

A Gallup survey conducted for the ALA in 1983 showed that 54 percent of adults favored setting aside certain areas for smoking in hotels and motels and 12 percent favored a total smoking ban. In a similar survey in 1987, these percentages were 67 percent and 10 percent, respectively, and were slightly higher for nonsmokers than for current smokers (Gallup 1988a).

Restrictions on the Sale and Distribution of Cigarettes

Complete Ban on Sales

The questions used to assess opinion regarding the outright ban of cigarette sales have varied considerably in wording. In 1964, respondents were asked if they agreed that "The selling of cigarettes should *not* be stopped completely." In 1970, respondents were asked if they agreed that "The selling of cigarettes *should* be stopped completely." Despite these differences, the responses consistently indicated little sympathy for this most stringent policy: approximately 30 percent of adults supported a ban in 1964, compared with 20 percent in 1981 (Table 29).

Limiting Sales to Minors

Most adults favor limiting cigarette sales to minors. In 1964, only 9 percent of adults thought that sales of cigarettes to people under a certain age should *not* be against the law. In 1970, 88 percent thought that such sales *should be* against the law (Table 30).

TABLE 28.—Trends in public opinion about restrictions on smoking in restaurants

Survey	Year	Reference	Smoking should be banned (or limited) in restaurants[a] (percentage who agree by smoking status)				
			Current smokers	Former smokers	Never smokers	All nonsmokers	All adults
1. Roper	1976	Roper 1978					22 (57)
2. Roper	1978	Roper 1978					23 (73)
3. Gallup	1983	ALA 1987	12 (74)	19 (71)		26 (65)	19 (69)
4. Gallup	1987	ALA 1987	7 (79)	19 (74)		23 (71)	17 (74)

[a]Percentages represent those who favor a total smoking ban. Percentages *in parentheses* represent those who favor setting aside certain areas for smoking.

NOTE: Actual questions:

1–2. Should smoking be permitted only in separate sections or should it be permitted anywhere . . . in eating places?

3–4. What is your opinion regarding smoking in these public places . . . restaurants? (set aside certain areas, totally ban smoking, or no restrictions)

TABLE 29.—Trends in public opinion about banning the sale of cigarettes

Survey	Year	Reference	Percentage who agree by smoking status				
			Current smokers	Former smokers	Never smokers	All nonsmokers	All adults
		The selling of cigarettes SHOULD BE stopped completely					
1. AUTS	1970	US DHEW 1973	27	36	48	44	38
2. Roper	1970	Roper 1978					15
3. Roper	1972	Roper 1978					13
4. Roper	1974	Roper 1978					12
5. Roper	1976	Roper 1978					12
6. Roper	1978	Roper 1978					16
7. Gallup	1977	Gallup 1981					19
8. Gallup	1978	Gallup 1978	11			23	19
9. Gallup	1981	Gallup 1981	10			26	20
		The selling of cigarettes should NOT be stopped completely					
10. AUTS	1964	US DHEW 1969	83	74	57	61	70
11. Gallup	1978	Gallup 1978					75

NOTE: Actual questions:

1. The selling of cigarettes should be stopped completely. (strongly agree, mildly agree, no opinion, mildly disagree, strongly disagree)*
2–6. A law should be passed against the sale of all cigarettes.(agree, disagree, don't know)
7–9. Do you think the sale of cigarettes should or should not be banned completely?
10. The selling of cigarettes should *not* be stopped completely.
11. Cigarette sales should *not* be banned completely.

*Percentages include those who "strongly agree" or "mildly agree."

TABLE 30.—Trends in public opinion about restrictions on the sale or distribution of cigarettes

Survey	Year	Reference	Percentage who agree by smoking status				
			Current smokers	Former smokers	Never smokers	All nonsmokers	All adults
		Sales of cigarettes to people under a certain age should NOT be against the law					
1. AUTS	1964	US DHEW 1969	12	7	7	7	9
		Sales of cigarettes to people under a certain age SHOULD BE against the law					
2. AUTS	1970	US DHEW 1973	87	87	90	89	88
		Cigarette companies should not be permitted to distribute free cigarettes on public streets					
3. Lieberman	1986	Lieberman 1986	48			67	61

NOTE: Actual questions:

1. Sales of cigarettes to people under a certain age should *not* be against the law. (strongly agree, mildly agree, no opinion, mildly disagree, strongly disagree)*
2. Sales of cigarettes to people under a certain age should be against the law. (strongly agree, mildly agree, no opinion, mildly disagree, strongly disagree)*
3. Should cigarette companies be permitted to distribute free cigarettes on public streets?†

*Percentages include those who "strongly agree" or "mildly agree."

†Percentages are those who believe cigarette companies should not be permitted to distribute free samples.

Banning Free Samples

In a 1986 survey conducted by Lieberman Research, Inc. (1986) (New York City) for ACS, AHA, and ALA, 61 percent of adults said that the distribution of free cigarette samples should not be permitted (67 percent of nonsmokers, 48 percent of smokers) (Table 30).

Policies Pertaining to Information and Education

Restricting or Prohibiting Tobacco Advertising

Since 1964, several surveys have investigated public opinion regarding a cigarette advertising ban, with marked differences in the wording of questions. Taken together, they do not seem to indicate any trend in public opinion (Table 31). However, separate examinations of surveys using identical questions over time indicate increasing support for an advertising ban. A series of identical questions from the AUTSs from 1964 and 1975 showed an increase in support for a complete ban between 1964 and 1970. In 1964, 36 percent of adults thought that cigarette advertising should be stopped completely. This increased to 61 percent in 1970 and 56 percent in 1975 (Table 31). Support for an advertising ban may have increased by 1970 because Congress had already banned cigarette advertising on television and radio in 1969 (effective on January 2, 1971) (see Chapter 7). Another series of identical questions used in Gallup surveys after the broadcast advertising ban showed an increase in the proportion of the public favoring a cigarette advertising ban, from 36 percent in 1977 to 43 percent in 1981 to 49 percent in 1987 to 55 percent in 1988.

Since 1975, surveys have provided conflicting results regarding public support for a complete ban, most likely as a result of differences in the wording of questions. In the two Gallup surveys conducted in 1977 and 1981, support *for a complete ban on cigarette advertising* increased from 36 to 43 percent (Gallup 1987a). In a 1985 Gallup survey, adults were asked which statement best described the respondent's opinion regarding cigarette advertising: "There should be a total ban on cigarette advertising." "There should be a curb on some types or forms of cigarette advertising." "There should be no ban whatsoever on cigarette advertising in newspapers, magazines, or billboards." The public was divided in their responses: about a third favored each option (32, 36, and 31 percent, respectively) (Gallup 1985).

As mentioned at the beginning of this Chapter, two surveys conducted in 1986 reported different results. One, conducted by AMA, reported that almost two-thirds of adults favored such a ban whereas another, sponsored by ACS, AHA, and ALA, reported that only one-third of Americans supported such a ban for newspapers and magazines (see the earlier discussion of these discrepant results). Four more recent surveys, conducted in 1987 and 1988, revealed that about half of adults favor a complete ban on advertising (Table 31).

TABLE 31.—Trends in public opinion about restricting or banning cigarette advertising

Survey	Year	Reference	Cigarette advertising should NOT be permitted (percentage who agree by smoking status)				
			Current smokers	Former smokers	Never smokers	All nonsmokers	All adults
1. AUTS	1964	US DHEW 1969	23	37	46	44	36
2. AUTS	1970	US DHEW 1973	50	64	68	67	61
3. AUTS	1975	US DHEW 1976a	43	59	64	63	56
4. Gallup	1977	Gallup 1987a	28			41	36
5. Gallup	1978	Gallup 1978	28			41	36
6. Gallup	1981	Gallup 1987a	27			53	43
7. Lieberman	1986	Lieberman 1986	21 (23)			38 (38)	33 (33)
8. AMA	1986	Harvey and Shubat 1986	48			71	64
9. AMA	1987	Harvey and Shubat 1987	42			61	55[a]
10. Gallup	1987	Gallup 1987a	30			57	49[a]
11. Gallup	1987	ACS 1988	37	53	59	57	51[a]
12. Gallup	1988	Gallup 1988b	34			64	55[a]

[a]The percentages who believe that cigarette advertising *should* be permitted were 36 percent (Harvey and Shubat 1987), 47 percent (Gallup 1987a), 33 percent (ACS 1988), and 40 percent (Gallup 1988b). Remaining respondents indicated no opinion.

NOTE: Actual questions:

1–3. Cigarette advertising should be stopped completely. (strongly agree, mildly agree, no opinion, mildly disagree, strongly disagree)*

4–6,10,12. Do you think there should or should not be a complete ban on cigarette advertising?

7. Some people feel that, as long as cigarettes are legal, cigarette advertising should be permitted. Others feel that cigarette advertising should not be permitted. Should cigarette companies be permitted to advertise . . . in magazines? . . . in newspapers?†

8. The American Medical Association called for a ban on tobacco advertising. Do you favor or oppose such an advertising ban?

9. Do you favor or oppose a ban on advertising of all tobacco products?

11. Some people feel that cigarette advertising *should* be permitted; others feel that cigarette advertising *should not* be permitted. Do you feel that cigarette advertising *should be* or should *not* be permitted?

*Percentages include those who "strongly agree" or "mildly agree."

†Percentages in parentheses are for newspapers (otherwise for magazines).

Warning Labels for Cigarettes

Recent data are not available on public opinion about warning labels. However, from 1964–70, support for these appeared to increase. In 1964, 28 percent of adults thought that cigarette advertising or commercials should *not* be required to carry a warning statement to the effect that smoking may be harmful to health; in 1970, 88 percent thought that cigarette advertising or commercials *should* be required to carry such a warning statement (Table 32).

Several surveys have assessed opinions regarding the need to strengthen the then existing health warning on packages and/or advertisements (e.g., Roper 1978). Some of these surveys tested specifically worded warnings that had been produced as an alternative to the existing warning. Because these data over time are difficult to compare and were most relevant at the time of the survey, they are not presented here.

Survey data from Lieberman Research, Inc. (1986) pertaining to recall of warning statements are presented in Chapter 7.

Economic Policies

Taxation

Questions regarding taxation of cigarettes are referenced to the taxation level at the time of the interview. This level varies with time, so it is difficult to delineate trends in opinion regarding taxation. Nevertheless, national surveys indicate an increase in public acceptance of increased cigarette taxation (Table 33).

In 1964, 30 percent of adults thought that taxes on cigarettes should be much higher than they were at the time of the interview. Similar questions asked in 1977 and 1981 revealed an increase in this proportion to 39 and 46 percent, respectively (Gallup 1981) (Table 33). In 1987, 79 percent of adults (75 percent of smokers and 80 percent of nonsmokers) favored an increase in the tax on tobacco products if the money from the increase went to medicare (Harvey and Shubat 1987). These recent data are of particular interest in light of the prevailing sentiment opposing increases in taxes in general.

Hiring

A minority of adults feel that employers should be allowed to refuse to hire cigarette smokers. In the 1978 Roper survey, 22 percent of adults thought that an employer has the right to refuse to hire someone who smokes cigarettes. In a 1986 survey (Lieberman Research 1986), 21 percent of adults (27 percent of nonsmokers, 7 percent of current smokers) believed that employers should be allowed to turn down job applicants who smoke.

TABLE 32.—Trends in public opinion concerning cigarette warning labels

Survey	Year	Reference	Percentage who agree by smoking status				
			Current smokers	Former smokers	Never smokers	All nonsmokers	All adults
		Cigarette advertising should NOT be required to carry a warning statement					
1. AUTS	1964	US DHEW 1969	38	27	19	21	28
		Cigarette packages should NOT be required to carry a warning statement					
2. AUTS	1964	US DHEW 1969	42	27	21	22	30
		Cigarette advertising SHOULD BE required to carry a warning statement					
3. AUTS	1970	US DHEW 1973	83	90	91	91	88

NOTE: Actual questions:

1. Cigarette advertising or commercials should *not* be required to carry a warning statement to the effect that smoking may be harmful to health. (strongly agree, mildly agree, no opinion, mildly disagree, strongly disagree)*

2. Cigarette manufacturers should *not* be required to put on the outside package a warning label like "Cigarette smoking is dangerous to health." (strongly agree, mildly agree, no opinion, mildly disagree, strongly disagree)*

3. Cigarette advertising or commercials should be required to carry a warning statement to the effect that smoking may be harmful to health.*

*Percentages include those who "strongly agree" or "mildly agree."

TABLE 33.—Trends in public opinion about increasing cigarette taxes

Survey	Year	Reference	Taxes on cigarettes should be increased (percentage who agree by smoking status)				
			Current smokers	Former smokers	Never smokers	All nonsmokers	All adults
1. AUTS	1964	US DHEW 1969	14	33	44	42	30
2. Roper	1970	Roper 1978	20			46	36
3. Roper	1972	Roper 1978	13			44	32
4. Roper	1974	Roper 1978	14			42	31
5. Roper	1976	Roper 1978	12			46	33
6. Gallup	1977	Gallup 1981					39
7. Roper	1978	Roper 1978	16			50	38
8. Gallup	1978	Gallup 1978	45			57	45
9. Gallup	1981	Gallup 1981	23			59	46
10. AMA	1987	Harvey and Shubat 1987	75			80	79

NOTE: Actual questions:

1. Taxes on cigarettes should be much higher than they are now. (strongly agree, mildly agree, no opinion, mildly disagree, strongly disagree)*

2–5, 7. The tax on cigarettes should be sharply increased to reduce their sale. (agree, disagree, don't know)

6, 9. Do you think federal and state taxes on cigarettes should or should not be increased?

8. Do you think the present 8 cents/pack federal tax on cigarettes should or should not be increased?

10. Would you favor or oppose an increase in the tax on tobacco products if the money from the increase went to Medicare?

*Percentages include those who "strongly agree" or "mildly agree."

Conclusions

1. In the 1950s, 40 to 50 percent of adults believed that cigarette smoking is a cause of lung cancer. By 1986, this proportion had increased to 92 percent (including 85 percent of current smokers).
2. Between 1964 and 1986, the proportion of adults who believed that cigarette smoking increases the risk of heart disease rose from 40 to 78 percent. A similar increase occurred among smokers, from 32 to 71 percent.
3. The proportion of adults who believed that cigarette smoking increases the risk of emphysema and chronic bronchitis rose from 50 percent in 1964 to 81 percent (chronic bronchitis) and 89 percent (emphysema) in 1986. These proportions increased among current smokers from 42 percent in 1964 to 73 percent (chronic bronchitis) and 85 percent (emphysema) in 1986.
4. Despite these impressive gains in public knowledge, substantial numbers of smokers are still unaware of or do not accept important health risks of smoking. For example, the proportions of smokers in 1986 who did not believe that smoking increases the risk of developing lung cancer, heart disease, chronic bronchitis, and emphysema were 15 percent, 29 percent, 27 percent, and 15 percent, respectively. These percentages correspond to between 8 and 15 million adult smokers in the United States.
5. In 1985, substantial percentages of women of childbearing age did not believe that smoking during pregnancy increases the risk of stillbirth (32 percent), miscarriage (25 percent), premature birth (24 percent), and having a low-birthweight baby (15 percent). Of women in this age group, 28 percent did not believe that women taking birth control pills have a higher risk of stroke if they smoke.
6. Some smokers today do not recognize their own personal risk from smoking or they minimize it. In 1986, only 18 percent of smokers were "very concerned" about the effects of smoking on their health, and 24 percent were not at all concerned.
7. In 1986, about half of current smokers and 40 percent of never smokers incorrectly believed that a person would have to smoke 10 or more cigarettes per day before it would affect his or her health.
8. A national survey conducted in 1983 by Louis Harris and Associates found that the public underestimates the health risks of smoking compared with many other health risks.
9. Many smokers underestimate the population impact of smoking. In 1987, 28 percent of smokers (and 16 percent of the general population) disagreed with the statement, "Most deaths from lung cancer are caused by cigarette smoking."
10. The proportion of high school seniors who believe that smoking a pack or more of cigarettes per day causes great risk of harm increased from 51 percent in 1975 to 66 percent in 1986.
11. In 1986, about three-quarters of adults believed that using chewing tobacco or snuff is harmful to health.
12. The social acceptability of smoking in public is declining, as measured by the proportion of adults who find it annoying to be near a person smoking cigarettes. This proportion increased from 46 percent in 1964 to 69 percent in 1986.

13. A majority of the public favors policies restricting smoking in public places and worksites, prohibiting the sale of cigarettes to minors, and increasing the cigarette tax to fund the medicare program. Recent surveys indicate that about half the public supports a ban on cigarette advertising.

Appendix

Description of Primary Data Sources for Chapters 4 and 5

Adult Use of Tobacco Survey, 1964

This was the first AUTS sponsored by the U.S. Public Health Service. The survey was conducted by National Analysts, Inc., under contract with the National Clearinghouse for Smoking and Health in the fall of 1964. The data for this survey were collected using area probability sampling techniques and stratifying by the type of population and geographic area. Approximately 5,794 adults 21 years and older were interviewed in person. The response rate was 76 percent. Detailed methods have been published elsewhere (US DHEW 1969).

Adult Use of Tobacco Survey, 1966

This was the second AUTS sponsored by the U.S. Public Health Service. The survey was conducted by two research firms: National Analysts, Inc., and Opinion Research Corporation, under contract with the National Clearinghouse for Smoking and Health in the spring of 1966. The data were collected using area probability sampling techniques and stratifying by the type of population and geographic area. The 1964 AUTS questionnaire was used with minor changes. Approximately 5,768 adults were interviewed. Interviews were primarily in person, although telephone interviews were used for nonrespondents. The response rate was 72 percent. Detailed methods have been published elsewhere (US DHEW 1969).

Adult Use of Tobacco Survey, 1970

This was the third AUTS sponsored by the U.S. Public Health Service. The survey was conducted by Chilton Research Services under contract with the National Clearinghouse for Smoking and Health in the spring of 1970. The data were collected from a probability sample of households in the contiguous United States. Approximately 5,200 individuals were surveyed; 91 percent were interviewed by telephone and 9 percent, from nontelephone households, were interviewed face to face. Of the total number of respondents, 44 percent were male and 56 percent were female; all were at least 21 years old. The methods have been described elsewhere in detail (US DHEW 1973).

Adult Use of Tobacco Survey, 1975

This was the fourth AUTS sponsored by the U.S. Public Health Service. The survey was conducted by Chilton Research Services under contract with the National Clearinghouse for Smoking and Health in 1975. The data were collected from a probability sample of telephone numbers in the contiguous United States, with a separate survey

of nontelephone households. Approximately 12,000 individuals were surveyed. The methods have been described elsewhere in detail (US DHEW 1976a).

Adult Use of Tobacco Survey, 1986

In 1986, 13,031 members of the civilian, noninstitutionalized population of the United States 17 years of age and older were surveyed by telephone on their smoking history, attitudes, and beliefs (CDC 1986).

A 2-stage sampling procedure was used within a computer-assisted telephone interview format. The first stage involved selecting a random sample of telephone exchanges within the United States. The sampling procedure was balanced for the number of telephones within the exchange. Clusters of between 10 and 15 households within each exchange were contacted using random-digit dialing. Households were enumerated and smoking status of members ascertained. Up to 27 callbacks were made to obtain a total of 36,405 households, with a response rate of 85.5 percent.

A further stratified random sampling procedure was used to provide an approximate equal proportion of respondents in each smoking category (current, former, never). The stratification variable was the number of smokers in the household. Up to 10 callbacks were made to interview the selected respondent, with a response rate of 86.9 percent. The overall response rate from the two stages of sampling was 74.3 percent (85.5 percent times 86.9 percent).

Quality control procedures in the survey involved 26 hours of survey-specific training and practice for interviewers and a silent monitoring of 10 percent of all interviews by supervisory staff. Data obtained were weighted to reflect the U.S. population in 2 stages. A base weight was calculated, which was the product of the weighting for cluster (completed screeners within cluster), household (telephone numbers within household), and person (to account for selection based on smoking status). Poststratification weighting was then undertaken for region, education, race, sex, and age.

American Medical Association, 1986, 1987

The data were gathered in telephone interviews with approximately 1,500 adults, conducted during May–June 1986 and January–February 1987. The surveys were conducted by Kane, Parsons and Associates of New York City. The samples were generated by Survey Sampling, Inc. (Westport, Connecticut) using a multistage probability method to provide a random sample of all residential telephones in the United States. Sampling error was an estimated plus or minus 2.5 percentage points at the 95-percent confidence level (Harvey and Shubat 1986, 1987).

Behavioral Risk Factor Surveillance System

Between 1981 and 1983, the U.S. Centers for Disease Control (CDC) collaborated with 29 State health departments (including the District of Columbia) to conduct one-time random-digit-dialed telephone surveys of adults 18 years of age and older. Stand-

ard methods and questionnaires were used to assess the prevalence of personal health practices and behaviors related to the leading causes of death, including cigarette smoking. Beginning in 1984, the surveys evolved into an ongoing surveillance system when States began collecting data throughout the year. For each State, approximately 1,200 (range 600–3,000) interviews are completed each year. The raw data are weighted to the age, race, and sex distribution for each State from the 1980 Census. This weighting accounts for the underrepresentation of men, blacks, and younger persons (18–24 years of age). A detailed review of the survey design and methods of analyzing the data has been published (Remington et al. 1985).

Chilton Survey, 1979

This survey was conducted by Chilton Research Services (Radnor, PA) for the FTC from December 21, 1978 through February 4, 1979. A random-digit-dialing procedure was used to collect interviews from 1,211 teenagers aged 13 to 18 years and from 407 adults aged 29 to 31 years in a national probability sample of telephone households. The 1,618 completed interviews represented 81 percent of the number of usable household telephone numbers (Chilton 1980).

Current Population Surveys

The U.S. Bureau of the Census regularly collects information as part of its Current Population Survey (CPS). Households are selected for survey via a sampling procedure designed to accurately reflect the U.S. population, and information is collected in person during a home visit. In 1955, 1966, 1967, 1968, and 1985, the CPS included a supplement that asked questions on current smoking practices. For 1985, 114,342 individuals, 16 years and older, were surveyed on smoking and smokeless tobacco use. Approximately 55 percent of the sample consisted of self-respondents while the remaining 45 percent were proxy respondents. The 1985 CPS sample was initially selected from the 1980 census files with coverage in all 50 States and the District of Columbia. This sampling methodology allows for State-specific analysis of smoking practices.

The estimation procedure used in this survey involves the inflation of the weighted sample results to independent estimates of the total civilian, noninstitutional population of the United States by age, race, sex, and Hispanic/non-Hispanic categories. These independent estimates are based on statistics on births, deaths, immigration, and emigration, as well as statistics on the strength of the Armed Forces. Based on the use of a special weighting algorithm developed by the Bureau of the Census, the CPS household sample estimates are considered to be representatitve of the United States. However, one potential problem with the CPS is the effect of proxy reports on sample estimates of smoking status. This may result in an underreporting bias.

Gallup Surveys

Gallup surveys are conducted using personal (face-to-face) or telephone interviews.

Personal surveys. The design of the sample for personal surveys is that of a replicated area probability sample down to the block level in the case of urban areas and to segments of townships in the case of rural areas.

After the Nation has been stratified geographically and by size of community according to information derived from the most recent census, more than 350 different sampling locations are selected on a mathematically random basis from within cities, towns, and counties that have in turn been selected on a mathematically random basis.

The interviewers are given no leeway in selecting the areas in which they are to conduct their interviews. Each interviewer is given a map on which a specific starting point is marked, and is instructed to contact households according to a predetermined travel pattern. At each occupied dwelling unit, the interviewer selects respondents by following a systematic procedure. This procedure is repeated until the assigned number of interviews has been completed.

Telephone surveys. The national Gallup telephone samples are based on the area probability sample used for personal surveys. In each of the sampling locations selected (as described above for personal surveys), a set of telephone exchanges that falls within the geographic boundaries of the sampling location is first identified. Listed telephone numbers in these exchanges are selected randomly and used as "seed numbers" for randomly generating telephone numbers. The result of this procedure is a sample of listed and unlisted telephone numbers assigned to households within telephone exchanges serving the sampling locations. The final sample of numbers thus reflects the stratification and selection of sampling locations.

After the survey data have been collected and processed, each respondent is assigned a weight so that the demographic characteristics of the total weighted sample of respondents match the latest estimates of the demographic characteristics of the appropriate adult population available from the U.S. Census Bureau. Telephone surveys are weighted to match the characteristics of the adult population living in households with access to a telephone. The weighting of personal interview data includes a factor to improve the representation of the kinds of people who are less likely to be found at home. The procedures described above are designed to produce samples approximating the adult civilian population (18 and older) living in private households (excluding those in prisons, hospitals, hotels, and religious and educational institutions, and those living on reservations or military bases)—and in the case of telephone surveys, households with access to a telephone (Gallup 1987a).

Lieberman Research Inc., 1986

The study was based on telephone interviews in a nationwide sample of 1,025 persons 18 years of age and older in the contiguous United States (Alaska and Hawaii were not included). A random-digit-dialed sample was used. Interviews were conducted from June 26 through July 10, 1986. The study was jointly sponsored by the American Cancer Society, the American Heart Association, and the American Lung Association; neither interviewers nor respondents were aware of the sponsors.

National Adolescent Student Health Survey, 1987

The National Adolescent Student Health Survey was initiated in 1985 by three national health organizations: the American School Health Association, the Association for the Advancement of Health Education, and the Society for Public Health Education. Funding for the survey was provided by the following agencies of the Public Health Service: the Office of Disease Prevention and Health Promotion (Office of the Assistant Secretary for Health), the Center for Chronic Disease Prevention and Health Promotion (CDC), and National Institute on Drug Abuse (Alcohol, Drug Abuse, and Mental Health Administration).

A two-stage cluster sampling procedure was used to survey 5,859 8th graders and 5,560 10th graders from 112 public and private schools. Twenty-four percent of the original sample of schools did not agree to participate and each was replaced by another randomly selected school from the same geographic area. Parents were informed of the content and purpose of the survey and were provided the opportunity to exclude their children from the survey. Students were informed that participation was voluntary and that all information provided would be strictly confidential. Parental requests for exclusion, student absenteeism, and voluntary nonparticipation reduced the survey response rate to 87.5 percent (88.9 percent for 8th grade and 86.0 percent for 10th grade).

During October to December 1987, trained survey administrators collected data from three randomly selected classes of 8th or 10th grade students at each participating school. Each student responded to one of three survey forms. The 30-day prevalence of cigarette smoking and smokeless tobacco use appeared on all survey forms. The item nonresponse on these questions was 0.2 percent of those who were surveyed.

National Health Interview Surveys

The National Health Interview Survey (NHIS), which is conducted regularly by the National Center for Health Statistics, uses a sampling frame developed by the U.S. Bureau of the Census and is based on a multistaged random probability sampling design. Information is collected in face-to-face household interviews using one adult per household and using proxy reporting for other members of the household. Since 1974, information on smoking has been obtained only by self-report. This has entailed telephone followup to selected household members who were not personally interviewed. Basic smoking information has been collected for several years, including 1965, 1966, 1970, 1974, 1976–80, inclusive, 1983, 1985, and 1987 (data prior to 1974 are based on both self-reports and proxy reporting; all of the more recent surveys were based on self-reports). Sample sizes for smoking data have ranged from 10,000 to 50,000 persons. There has been an overall consistency in the smoking questions asked in the different surveys. Beginning in 1985, an adequate sample of blacks was ensured by the survey design (using the technique of oversampling). The NHIS generally has a response rate of 96 percent (NCHS 1987). However, the extra step in converting proxy response to self-report leads to a decrease in the response rate to approximately 90 percent.