

Cancer Prevention & Early Detection Facts & Figures

Tables & Figures 2024

Table of Contents

Contents

Table of Contents	2
Tobacco	4
Figure 1A. Current Cigarette Smoking, Adults 18 Years and Older, by State, 2022	4
Figure 1B. Proportion of Cancer Cases and Deaths Attributable to Cigarette Smoking, Adults 30 Years and Older, US	
Table 1A. Current Tobacco Use and Smoking Cessation, Adults 18 Years and Older, US, 2022	
Figure 1C. Current Cigarette Smoking Trends, Adults 18 Years and Older, by Sex and Race/Ethnicity, US, 1990-2022.	7
Table 1B. Current Tobacco Use and Smoking Cessation, Adults 18 Years and Older, by State, 2020 and 2022	8
Table 1C. Current Tobacco Use, High School Students, US, 2023	9
Figure 1D. Current Use of Selected Tobacco Products, by Race/Ethnicity, High School Students, US, 2011-2023	10
Table 1D. Tobacco Control Measures, by State, 2024	11
Figure 1E. Cigarette Smoking-related Cancer Burden 2019 (A) vs. Cigarette Excise Taxes 2023 (B), US States	12
Excess Body Weight, Physical Activity, Diet, and Alcohol	13
Figure 2A. Proportion of Cancer Cases and Deaths Attributable to Excess Body Weight in Adults 30 Years and Older, 2014	
Figure 2B. Excess Body Weight, Youth and Adults, US, 2017-March 2020	14
Figure 2C. Obesity Trends, Adults 20-74 Years, by Sex and Race/Ethnicity†, US, 1976-March 2020	15
Table 2A. Overweight and Obesity, Adults 18 Years and Older, by State, 2022	16
Figure 2D. Obesity Trends, Adolescents 12-19 Years, by Sex and Race/Ethnicity, US, 1976-March 2020	17
Table 2B. Alcohol and Physical Activity, Adults 18 Years and Older, US, 2022	18
Table 2C. Alcohol, Diet, and Physical Activity, Adults 18 Years and Older, by State, 2019, 2021, and 2022	19
Figure 2E. No Leisure-time Physical Activity (A) and Excess Body Weight (B), Adults 18 Years and Older, by State, 20	22.20
Ultraviolet Radiation	21
Figure 3A. State Indoor Tanning Restrictions for Minors, 2023	21
Figure 3B. Sun Protective Behaviors, Adults 18 Years and Older, US, 2020	22
Infectious Agents	23
Table 4A. Vaccination Coverage, Youth Ages 13-17, by Sex, Race/Ethnicity, and Poverty Status, US, 2022	23
Figure 4A. Prevalence of Human Papillomavirus Strains Targeted by Vaccines Among Female Adolescents and Adult Ages 14-24 Years, 2003-2018	
Table 4B. Human Papillomavirus Vaccination Coverage, Youth, by State, US, 2020-2022	25
Figure 4B. Up-to-date Human Papillomavirus Vaccination Before 13th Birthday, Adolescents 13-17 Years, by State, 2	
Occupational and Environmental Cancer Risk Factors	27

Figure 5A. Total Lifetime Air Toxic Cancer Risk from Prolonged Air Toxic Exposure, US, 2019	27
Cancer Screening	28
Figure 6A. Trends in Breast, Cervical, and Colorectal Cancer Screening, US, 2000-2021	28
Table 6A. Mammography, Females 40 Years and Older, US, 2021	29
Table 6B. Mammography, Females 40 Years and Older, by State, 2022	30
Figure 6B. Trends in Mammography Within the Past Two Years, Females 40 Years and Older, by Race/Ethnicity, L 2021	
Table 6C. Cervical Cancer Screening, Females 21-65 Years, US, 2021	32
Table 6D. Cervical Cancer Screening, Females 21-65 Years, by State, 2022	33
Figure 6C. Trends in Cervical Cancer Screening, Females 21-65 Years, by Race/Ethnicity, US, 2000-2021	34
Table 6E. Colorectal Cancer Screening, Adults 45 Years and Older, US, 2021	35
Table 6F. Colorectal Cancer Screening, Adults 45 Years and Older, by State, 2022	36
Figure 6D. Trends in Colorectal Cancer Screening, Adults 50 Years and Older, by Race/Ethnicity, US, 2000-2021	37
Table 6G. Prostate Specific Antigen Test, Males 50 Years and Older, US, 2021	38
Table 6H. Prostate Specific Antigen Test, Males 50 Years and Older, by State, US, 2020	39
Table 61. Lung Cancer Screening, Adults 50-79 Years, by State, US, 2022	40
American Cancer Society Recommendations for the Early Detection of Cancer in Average-risk Asymptomatic Peo	ple41
Special Notes	42
Glossary	42
Survey Sources	43
References	45
Acknowledgements	47

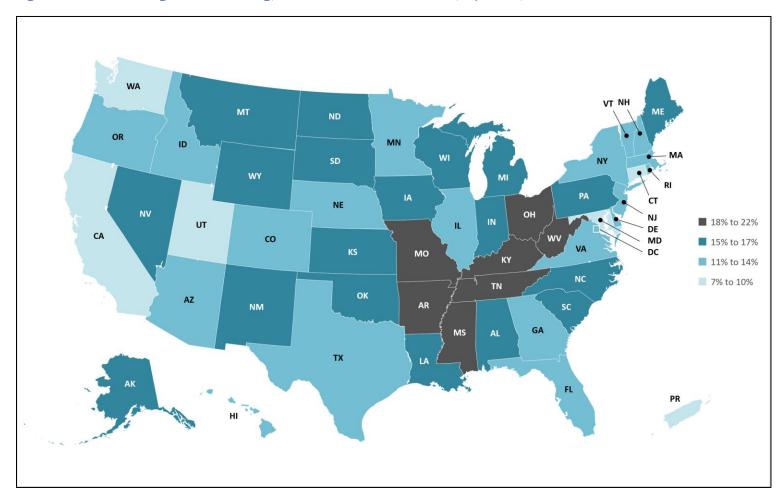
This publication attempts to summarize current scientific information about cancer. Except when specified, it does not represent the official policy of the American Cancer Society

Suggested Citation: American Cancer Society. Cancer Prevention & Early Detection Facts & Figures Tables and Figures 2024. Atlanta: American Cancer Society; 2024.

©2024, American Cancer Society, Inc. All rights reserved, including the right to reproduce this publication or portions thereof in any form. For permission, email the American Cancer Society Legal department at permissionrequest@cancer.org

Tobacco

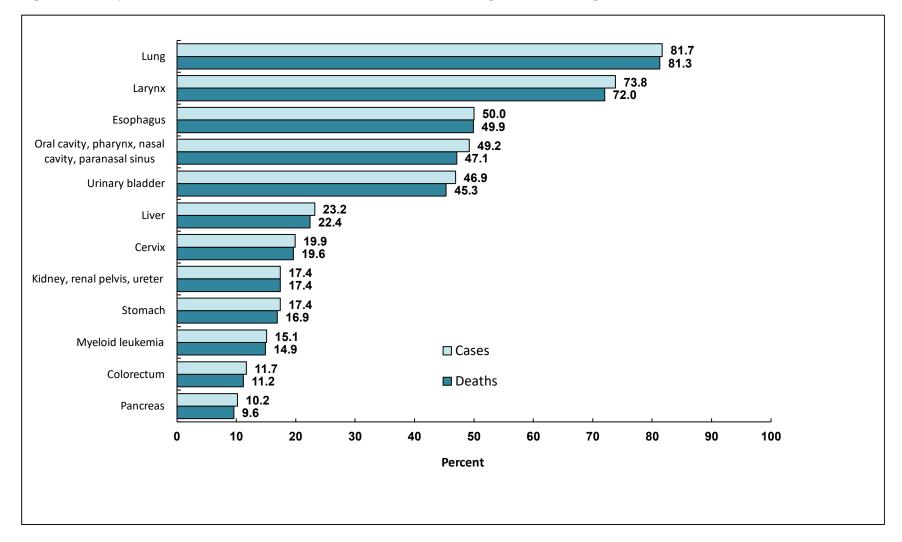
Figure 1A. Current Cigarette Smoking, Adults 18 Years and Older, by State, 2022



Estimates are age adjusted to the year 2000 US standard population using 5 age groups: 18-24, 25-34, 35-44, 45-64, ≥65 years. Current cigarette smoking is defined as ever smoked 100 cigarettes in lifetime and now smoke every day or some days.

Source: Behavioral Risk Factor Surveillance System, 2022.

Figure 1B. Proportion of Cancer Cases and Deaths Attributable to Cigarette Smoking, Adults 30 Years and Older, US, 2014



Source: Islami F et al, 2018.1

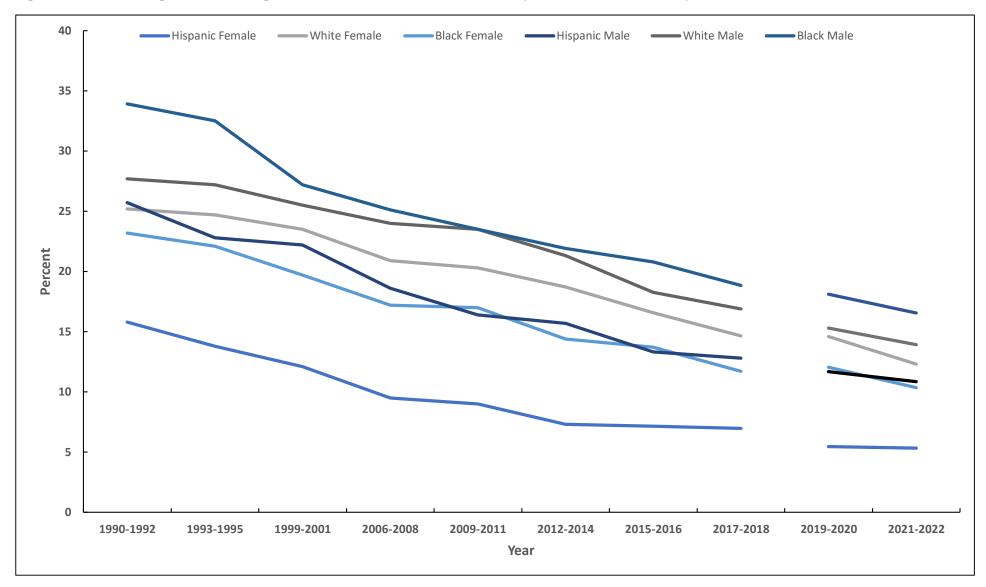
Table 1A. Current Tobacco Use and Smoking Cessation, Adults 18 Years and Older, US, 2022

						Past-year	
				E-cigarette	Quit	Quit	Recent Successful
	Current	Cigarette S	moking*	use¶	Ratio†	Attempt**	Cessation§
		0.60		Age adjuste		•	
	Males	Females	Overall	Overall	Overall	Overall	Overall
Overall	13 (13)	10 (10)	12 (12)	7 (6)	62 (66)	55 (53)	10 (9)
Sex							
Males			13 (13)	7 (7)	63 (67)	55 (53)	9 (9)
Females			10 (10)	6 (5)	62 (65)	56 (53)	11 (9)
Age (years)							
18-24	6 (6)	3 (3)	5 (5)	15 (15)	50 (50)	74 (74)	15 (15)
25-44	15 (15)	10 (10)	13 (13)	9 (9)	60 (60)	58 (58)	12 (12)
45-64	16 (16)	14 (14)	15 (15)	3 (3)	61 (61)	47 (47)	6 (6)
65 years and above	10 (10)	8 (8)	9 (9)	1 (1)	80 (80)	49 (49)	6 (6)
Race/Ethnicity							
Hispanic	11 (11)	5 (5)	8 (8)	4 (4)	62 (64)	57 (56)	11 (11)
NH White only	14 (13)	12 (12)	13 (13)	8 (7)	64 (68)	53 (51)	10 (9)
NH Black only	19 (18)	11 (11)	14 (14)	5 (5)	48 (50)	61 (57)	9 (7)
NH Asian only	8 (8)	2 (2)	4 (5)	2 (2)	72 (71)	63 (59)	‡
NH AIAN only or multiple	25 (26)	16 (16)	20 (20)	10 (10)	51 (53)	65 (65)	‡
Sexual orientation							
Gay or lesbian	11 (12)	11 (10)	11 (11)	8 (10)	62 (64)	67 (68)	‡
Heterosexual	13 (13)	10 (10)	12 (12)	6 (5)	62 (66)	55 (52)	9 (8)
Bisexual	18 (13)	23 (15)	21 (14)	11 (18)	59 (59)	54 (66)	16 (24)
Immigration status	, ,	•	, ,	, ,	, ,	, ,	, ,
Born in US/US territory	14 (14)	12 (12)	13 (13)	7 (7)	62 (66)	56 (53)	10 (9)
In US fewer than 10 years	12 (13)	‡	7 (7)	3 (4)	48 (53)	53 (60)	#
In US 10+ years	10 (10)	3 (4)	6 (7)	3 (2)	64 (71)	54 (52)	8 (9)
Education (≥25 years)							
No HS diploma	27 (26)	20 (19)	23 (22)	6 (4)	44 (49)	47 (48)	4 (4)
GED	37 (37)	23 (24)	31 (31)	10 (9)	48 (48)	52 (52)	‡
HS diploma	21 (20)	15 (14)	18 (17)	7 (6)	57 (60)	52 (51)	8 (7)
Some college	14 (14)	13 (13)	14 (13)	7 (6)	67 (68)	52 (52)	9 (9)
Undergraduate degree	7 (6)	5 (5)	6 (6)	3 (4)	79 (80)	55 (56)	14 (15)
Graduate degree	3 (3)	3 (3)	3 (3)	2 (2)	85 (87)	65 (65)	18 (17)
Income level							
<100% FPL	28 (27)	19 (18)	23 (22)	8 (8)	43 (44)	56 (54)	8 (7)
100 to less than 200% FPL	21 (21)	15 (14)	18 (17)	8 (7)	51 (56)	54 (52)	8 (8)
≥200% FPL	10 (10)	8 (8)	9 (9)	6 (6)	69 (72)	56 (54)	11 (10)
Insurance status (≥18 years)							
Uninsured	26 (24)	12 (13)	18 (19)	7 (9)	45 (44)	51 (49)	5 (6)
Private	10 (10)	7 (8)	8 (9)	6 (6)	70 (71)	57 (55)	11 (10)
Medicaid/Pub/Dual Eligible	25 (24)	20 (19)	22 (21)	8 (9)	47 (46)	55 (53)	10 (9)
Medicare (65 years and above)	9 (9)	7 (7)	8 (8)	1 (1)	82 (82)	48 (48)	5 (5)
Other (below 65 years)	17 (19)	10 (13)	14 (16)	8 (7)	61 (59)	63 (53)	14 (8)
AIAN-American Indian or Alaska Native. HS-high	school. GED		ational Develo		ol equivalency	. FPL-federal poverty	/ level. Estimates are age

AIAN-American Indian or Alaska Native. HS-high school. GED-General Educational Development high school equivalency. FPL-federal poverty level. Estimates are age adjusted to the year 2000 US standard population using 5 age groups: 18-24, 25-34, 35-44, 45-64, ≥65 years. By education, estimates are age adjusted using the 4 age groups: 25-34, 35-44, 45-64, ≥65 years. *Ever smoked 100 cigarettes in lifetime and now smoke every day or some days. ¶Reported ever using e-cigarettes or other electronic vaping products and now smoke "every day" or "some days." †Persons who formerly smoked (do not smoke currently) among those who ever smoked 100 cigarettes in lifetime. **Persons who reported that they stopped smoking for >1 day during the past 12 months because they were trying to quit smoking among those currently smoking and persons who quit during the past year among those who formerly smoked. §Persons who quit smoking for ≥6 months during the past year among those who quit during the past year and among those currently smoking who had smoked for >=2 years. ‡Estimates are statistically unstable and not shown. See Special Notes, Page 42.

Source: National Health Interview Survey, 2022.

Figure 1C. Current Cigarette Smoking Trends, Adults 18 Years and Older, by Sex and Race/Ethnicity, US, 1990-2022



Estimates are age adjusted to the year 2000 US standard population using 5 age groups: 18-24, 25-34, 35-44, 45-64, ≥65 years. The NHIS underwent a significant redesign in 2019 preventing comparability to prior years indicated by the line break. Current cigarette smoking is defined as ever smoked 100 cigarettes in lifetime and now smoke every day or some days.

Sources: Health, United States, 2018.² National Health Interview Survey, 2015-2022.

Table 1B. Current Tobacco Use and Smoking Cessation, Adults 18 Years and Older, by State, 2020 and 2022

			Cigarettes* (2	2022)		E-	Smoking Cessation			
Age adjusted % (Crude %)	Overall	Rank** (1=high)	Males	Females	Low Education***	cigarettes¶ (2022)	Quit Ratio† (2022)	Past-year Quit Attempt†† (2020)	Recent Successful Cessation§ (2020)	
United States (median)	14 (14)		15 (14)	13 (13)	29 (27)	8 (8)	61 (64)	62 (62)	6 (6)	
Range	7-22 (7-21)		9-23 (8-22)	5-23 (5-21)	15-50 (15-42)	3-12 (3-11)	52-71 (55-73)	56-71 (55-71)	3-11 (3-10)	
Alabama	16 (16)	10	17 (17)	15 (14)	35 (32)	11 (10)	57 (60)	69 (69)	5 (5)	
Alaska	16 (16)	12	18 (18)	14 (14)	38 (38)	7 (7)	61 (63)	62 (65)	‡ (3)	
Arizona	13 (13)	31	14 (14)	12 (11)	28 (27)	10 (9)	64 (68)	63 (62)	6 (6)	
Arkansas	20 (19)	2	23 (22)	17 (16)	45 (37)	11 (10)	57 (59)	57 (57)	4 (4)	
California	10 (10)	50	13 (13)	7 (7)	17 (17)	8 (7)	65 (69)	69 (69)	8 (8)	
Colorado	11 (11)	43	13 (12)	9 (9)	19 (19)	9 (8)	68 (71)	66 (67)	8 (8)	
Connecticut	10 (10)	47	12 (12)	8 (8)	18 (19)	6 (6)	67 (73)	70 (69)	5 (5)	
Delaware	14 (13)	27	15 (14)	12 (12)	25 (23)	7 (6)	60 (66)	66 (65)	‡ (4)	
District of Columbia	11 (11)	42	13 (12)	9 (9)	40 (35)	5 (5)	58 (62)	71 (71)	6 (7)	
Florida	12 (11)	38	14 (13)	10 (10)	22 (19)	7 (6)	66 (71)	64 (62)	6 (5)	
Georgia	13 (13)	33	13 (13)	13 (12)	29 (26)	8 (8)	61 (64)	66 (66)	7 (6)	
Hawaii	11 (10)	46	12 (12)	9 (8)	32 (28)	10 (9)	69 (72)	63 (63)	5 (5)	
Idaho	12 (12)	35	13 (13)	12 (11)	25 (26)	11 (10)	66 (69)	62 (62)	6 (6)	
Illinois	13 (12)	32	15 (14)	11 (10)	26 (26)	6 (5)	61 (66)	62 (61)	8 (8)	
Indiana	17 (16)	9	18 (17)	16 (15)	33 (32)	9 (8)	58 (61)	60 (60)	4 (4)	
lowa	16 (15)	21	17 (17)	14 (13)	29 (28)	7 (7)	58 (62)	60 (60)	5 (5)	
Kansas	15 (15)	22	16 (16)	14 (13)	38 (36)	8 (8)	61 (63)	59 (59)	7 (6)	
Kentucky	18 (17)	7	20 (19)	16 (15)	29 (26)	12 (10)	57 (59)	56 (55)	6 (6)	
Louisiana	17 (17)	8	19 (19)	15 (15)	41 (38)	11 (10)	59 (60)	65 (65)	6 (6)	
Maine	16 (15)	16	17 (16)	15 (14)	45 (40)	8 (6)	60 (66)	58 (57)	7 (7)	
Maryland	10 (10)	51	12 (11)	8 (8)	21 (19)	5 (5)	65 (69)	64 (64)	6 (6)	
Massachusetts	11 (10)	44	12 (11)	9 (9)	23 (21)	6 (6)	63 (69)	66 (66)	6 (6)	
Michigan	16 (15)	15	17 (16)	15 (14)	37 (34)	10 (8)	60 (64)	64 (63)	6 (5)	
Minnesota	13 (13)	30	14 (14)	13 (14)	32 (31)	8 (7)	62 (66)	60 (60)	6 (6)	
Mississippi	18 (17)	4	21 (21)	15 (12)	39 (37)	10 (9)	55 (57)	66 (66)	3 (3)	
Missouri	18 (17)	5	18 (17)	17 (16)	38 (35)	9 (8)	58 (61)	61 (61)	6 (6)	
Montana	16 (15)	13	15 (15)	17 (16)	44 (42)	9 (8)	62 (66)	59 (61)	7 (7)	
Nebraska	14 (13)	29	14 (14)	13 (12)	23 (23)	9 (8)	62 (65)	61 (62)	6 (6)	
Nevada	15 (15)	24	15 (15)	15 (15)	24 (23)	10 (9)	58 (62)	62 (63)	10 (10)	
New Hampshire	12 (11)	40	12 (11)	11 (11)	44 (38)	8 (7)	69 (72)	61 (60)	5 (5)	
New Jersey	11 (10)	45	12 (12)	9 (9)	24 (23)	7 (6)	63 (69)	69 (69)	7 (7)	
New Mexico	16 (15)	20	18 (17)	13 (13)	23 (22)	8 (7)	59 (64)	65 (66)	7 (7)	
New York	12 (11)	40	13 (13)	10 (10)	18 (18)	8 (7)	63 (67)	67 (66)	7 (7)	
North Carolina	15 (14)	24	16 (15)	14 (14)	29 (27)	9 (8)	58 (63)	60 (60)	7 (7)	
North Dakota	16 (15)	18	15 (15)	16 (15)	45 (36)	9 (9)	60 (62)	57 (59)	6 (6)	
Ohio	18 (17)	6	18 (18)	17 (16)	40 (38)	10 (9)	56 (60)	59 (59)	4 (4)	
Oklahoma	16 (16)	13	17 (17)	15 (15)	28 (27)	12 (11)	61 (64)	61 (61)	4 (4)	
Oregon	13 (12)	34	14 (14)	12 (11)	22 (22)	8 (7)	63 (67)	59 (59)	8 (8)	
_	16 (15)	19	16 (16)	15 (14)	39 (35)	8 (7)	57 (63)	63 (61)	6 (6)	
Pennsylvania Rhode Island	12 (12)	37	13 (13)	12 (11)	22 (22)	7 (7)	65 (70)	66 (65)	8 (8)	
South Carolina	16 (15)	11	18 (17)	14 (14)	36 (32)	9 (8)	60 (63)	63 (62)	6 (6)	
South Dakota	15 (14)	26	14 (15)	15 (14)	20 (19)	7 (7)	60 (62)	59 (60)	5 (‡)	
Tennessee	19 (19)	3	21 (20)	15 (14) 17 (17)	50 (40)	12 (11)	57 (59)	59 (60) 58 (58)	5 (+) 5 (5)	
Texas		39	13 (13)	17 (17)		7 (7)	62 (65)		5 (5) 7 (7)	
Utah	12 (12) 7 (7)	52	9 (8)		20 (20) 15 (15)	7 (7)	71 (72)	66 (66) 67 (68)	11 (10)	
				5 (5)	15 (15)					
Vermont	14 (13)	28	14 (14)	13 (12)	38 (36)	7 (6)	64 (69)	61 (62)	6 (7)	
Virginia	12 (12)	36 40	15 (14)	10 (10)	24 (24)	8 (8)	62 (66)	65 (65)	7 (7)	
Washington	10 (10)	49	11 (11)	9 (9)	24 (24)	8 (7)	69 (72)	64 (64)	8 (8)	
West Virginia	22 (21)	1	22 (21)	23 (21)	50 (38)	11 (9)	52 (55)	59 (57)	7 (6)	
Wisconsin	15 (14)	23	16 (15)	14 (13)	32 (31)	8 (7)	61 (65)	61 (61)	7 (8)	
Wyoming	16 (15)	17	17 (17)	15 (14)	28 (28)	9 (8)	61 (63)	59 (60)	7 (7)	
Puerto Rico	10 (9)	48	13 (13)	7 (7)	24 (15)	3 (3)	53 (60)	63 (62)	5 (5)	

Estimates are age adjusted to the year 2000 US standard population using 5 age groups: 18-24, 25-34, 35-44, 45-64, ≥65 years. By education, estimates are age adjusted to the year 2000 US standard population using 4 age groups: 25-34, 35-44, 45-64, ≥65 years. *Ever smoked 100 cigarettes in lifetime and now smoke every day or some days. **Based on overall age-adjusted % for age ≥18 years. ***Less than a high school education among adults ≥25 years. ¶Reported using e-cigarettes or other electronic vaping products "every day" or "some days." Estimates of e-cigarette use are not comparable to prior years. †Persons who formerly smoked (do not smoke currently) among those who ever smoked 100 cigarettes in lifetime. ††Persons who reported that they stopped smoking during the past 12 months because they were trying to quit smoking among those currently smoking and persons who quit during the past year among those who formerly smoked. §Persons who quit smoking for ≥6 months during the past year among those who formerly smoked. Spersons who age 22 years. ‡Estimates are statistically unstable and not shown. See Special Notes, Page 42.

 $\begin{tabular}{ll} \hline \textbf{Sources:} & \textbf{Behavioral Risk Factor Surveillance System, 2020 and 2022.} \\ \hline \end{tabular}$

Table 1C. Current Tobacco Use, High School Students, US, 2023

Crude %	Cigarettes	Cigars	E-cigarettes	Smokeless Tobacco†	Waterpipe
Overall	2	2	10	2	1
Sex					
Males	2	2	8	2	1
Females	2	1	12	‡	1
Race/Ethnicity					
Hispanic	2	2	10	2	1
White	2	1	11	2	‡
Black	‡	2	6	‡	‡

Current tobacco use is defined as in the past 30 days. †Includes chewing tobacco/snuff/dip, snus, and dissolvable tobacco. ‡Estimates are statistically unstable and not shown. See Special Notes, Page 42.

Source: Birdsey J et al, 2023.³

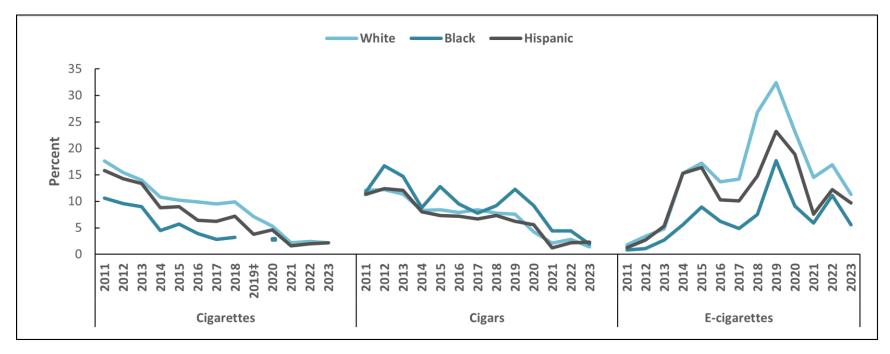


Figure 1D. Current Use of Selected Tobacco Products, by Race/Ethnicity, High School Students, US, 2011-2023

Estimates are crude. Current tobacco use is defined as in the past 30 days. ‡Estimates of cigarette smoking in Black persons in 2019 and 2021-2023 are statistically unstable and not shown. See Special Notes, Page 42.

Sources: Birdsey J et al, 2023.³ Park-Lee E et al, 2022.⁴ Gentzke AS et al, 2022.⁵ Gentzke AS et al, 2020.⁶ Wang TW et al, 2019.⁷ Gentzke AS et al, 2019.⁸ Wang TW et al, 2018.⁹ Jamal A et al, 2017.¹⁰ Singh T et al, 2016.¹¹ Arrazola RA et al, 2015.¹² Arrazola RA et al, 2014.¹³ CDC, 2013.¹⁴

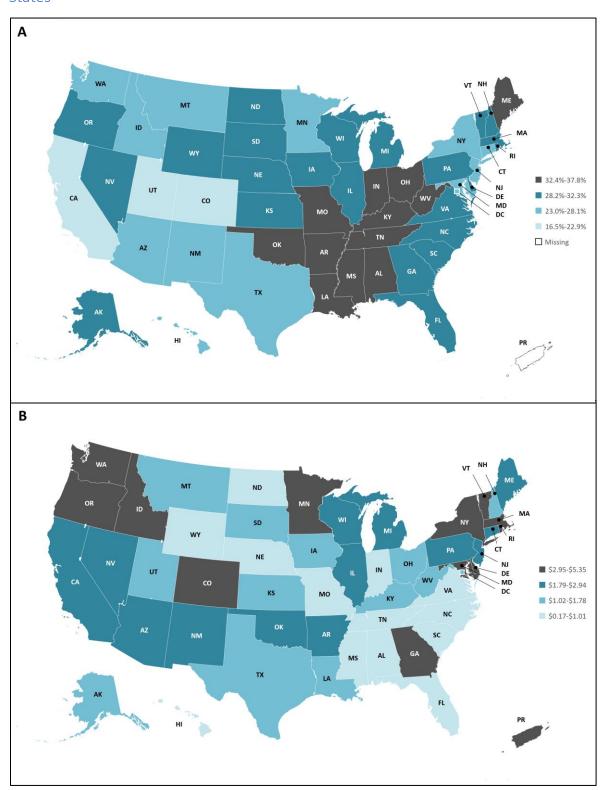
Table 1D. Tobacco Control Measures, by State, 2024

	Cigarette tax per	tte tax ner 100% smoke-free laws†					Tobacco control funding as
	pack (\$)*	w	R	В	G	e-cigarettes use also restricted	% of CDC recommendation
United States (average)	\$1.93						
Range	\$0.17-\$5.35						
Alabama	\$0.675						3.1%
Alaska	\$2.00						53.2%
Arizona	\$2.00	✓	✓	✓	✓		28.0%
Arkansas	\$1.15						30.0%
California	\$2.87	✓	\checkmark	✓	✓	✓	59.8%
Colorado	\$1.94	✓	√	✓	✓	✓	42.3%
Connecticut	\$4.35	✓	✓	✓	✓	✓	39.5%
Delaware	\$2.10	✓	✓	✓	✓	‡	74.3%
District of Columbia	\$4.50	✓	✓	✓		•	17.8%
Florida	\$1.339	✓	✓	•	✓	§	43.1%
Georgia	\$0.37	1	-			3	2.0%
Hawaii	\$3.20	✓	✓	✓		§	54.9%
Idaho	\$0.57	'	✓	•		Ä	24.0%
	· ·	✓	∨	✓	✓	‡	
Illinois	\$2.98	V ✓	∨	v	•	Ŧ	8.6%
Indiana	\$0.995	V /		√			12.5%
lowa	\$1.36	1	-	-			14.2%
Kansas	\$1.29	✓	✓	✓			7.0%
Kentucky	\$1.10						5.1%
Louisiana	\$1.08	✓.	✓.				7.6%
Maine	\$2.00	✓	✓	✓	✓	**	100.0%
Maryland	\$3.75	✓	\checkmark	✓	\checkmark		44.3%
Massachusetts	\$3.51	✓	\checkmark	\checkmark	\checkmark	✓	9.4%
Michigan	\$2.00	✓	\checkmark	\checkmark			1.6%
Minnesota	\$3.04	✓	\checkmark	\checkmark	\checkmark	\checkmark	22.7%
Mississippi	\$0.68						23.8%
Missouri	\$0.17						3.9%
Montana	\$1.70	✓	✓	\checkmark	\checkmark		38.9%
Nebraska	\$0.64	✓	\checkmark	✓	✓	‡	17.6%
Nevada	\$1.80	✓	✓			¶	3.2%
New Hampshire	\$1.78		\checkmark	✓		**	3.7%
New Jersey	\$2.70	✓	✓	✓		§	8.7%
New Mexico	\$2.00	✓	✓	✓		§	19.5%
New York	\$5.35	✓	✓	✓	✓	‡	23.0%
North Carolina	\$0.45		✓	✓		•	13.4%
North Dakota	\$0.44	✓	✓	✓	1	✓	61.8%
Ohio	\$1.60	/	√		· /	‡	5.9%
Oklahoma	\$2.03	'	•	•	•	+	77.0%
	\$3.33	✓	1	1	1	✓	73.3%
Oregon	· ·	\ \ \	•	•	•	V	
Pennsylvania	\$2.60	\ \ \	✓	✓		c+	11.7%
Rhode Island	\$4.25	<u> </u>				§‡	3.4%
South Carolina	\$0.57	✓	./	./	./	,	9.8%
South Dakota	\$1.53	'	v	v	•	✓	38.5%
Tennessee	\$0.62						3.4%
Texas	\$1.41		,	,			2.3%
Utah	\$1.70	✓	√	√		§	80.0%
Vermont	\$3.08	_	\checkmark	✓	\checkmark	‡	32.0%
Virginia	\$0.60						11.7%
Washington	\$3.025	✓	\checkmark	\checkmark	\checkmark		6.6%
West Virginia	\$1.20						1.6%
Wisconsin	\$2.52	✓	✓	✓	✓		11.7%
Wyoming	\$0.60						29.0%

W-workplaces, R-restaurants, B-bars, G-state-run gambling establishments. *Effective as of September 1, 2023. †Passed or implemented, reported as of April 1, 2024. Other state laws that do not explicitly address e-cigarettes may be interpreted as prohibiting their use. ‡Some exceptions; see sources for more information. §workplaces, restaurants, & bars. **restaurants & bars. ¶workplace and restaurants.

Sources: ACS-CAN.¹⁵ Smoke-free laws: American Nonsmokers Rights Foundation.¹⁶¹² Campaign for Tobacco-Free Kids.¹³

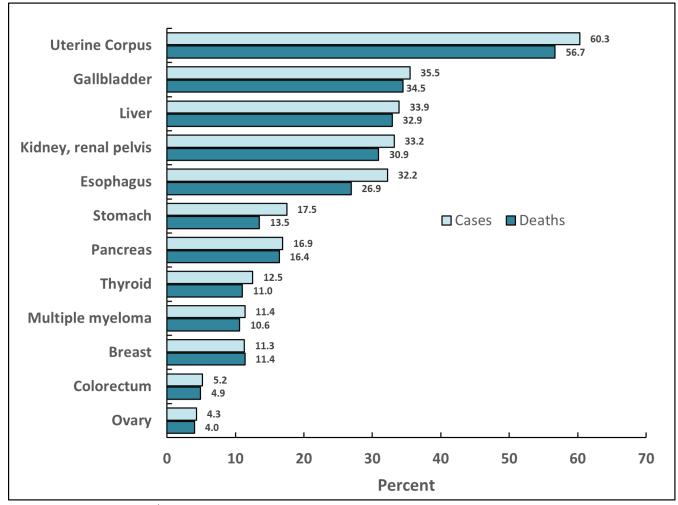
Figure 1E. Cigarette Smoking-related Cancer Burden 2019 (A) vs. Cigarette Excise Taxes 2023 (B), US States



A: Percent of smoking attributable cancer deaths. B: Statewide tax rates per pack of cigarettes. **Sources:** Islami F et al, $2022.^{19}$ ACS-CAN. 15

Excess Body Weight, Physical Activity, Diet, and Alcohol

Figure 2A. Proportion of Cancer Cases and Deaths Attributable to Excess Body Weight in Adults 30 Years and Older, US, 2014



Source: Islami F et al, 2018.1

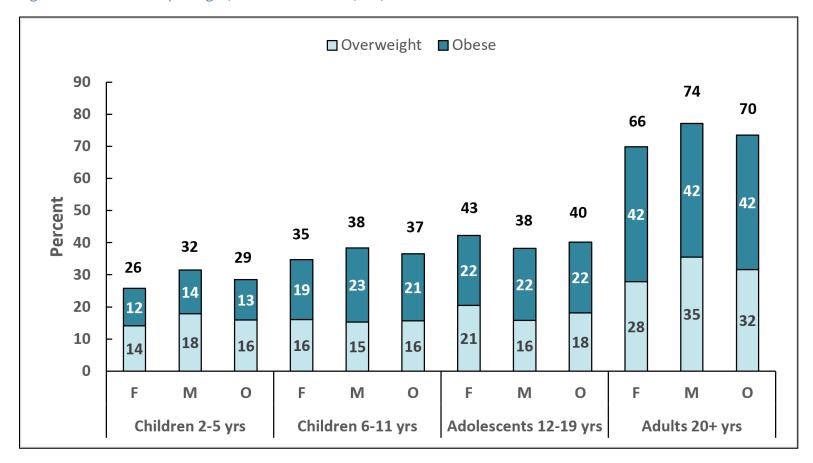
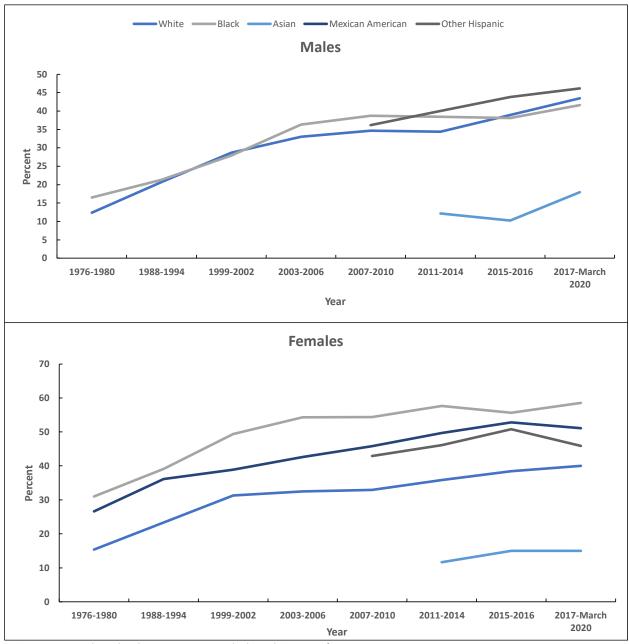


Figure 2B. Excess Body Weight, Youth and Adults, US, 2017-March 2020

BMI-Body Mass Index. F-females, M-males, O-overall. For adults, a BMI of 25.0-29.9 kg/m2 is overweight; a BMI of ≥30.0 kg/m2 is obese. Excess body weight is a BMI of ≥25.0 kg/m2. For youth (ages 2-19 years), BMI is based on percentile rankings of the individual's height and weight on age- and sex-specific growth charts; BMIs between the top 85th and 94.9th percentile are considered overweight, and BMIs at or above the 95th percentile (top 5%) are classified as obese. Estimates for ages 20+ are age adjusted to the year 2000 US standard population using five age groups: 20-34, 35-44, 45-54, 55-64, ≥65 years.

Source: National Health and Nutrition Examination Survey, 2017-March 2020.

Figure 2C. Obesity Trends, Adults 20-74 Years, by Sex and Race/Ethnicity†, US, 1976-March 2020



Estimates are age-adjusted to the year 2000 US standard population using five age groups: 20–34 years, 35–44 years, 45–54 years, 55–64 years, and 65 years and over (65–74 years for estimates for 20–74 years). Estimates for Mexican Americans in 1976-1980 are from 1982-1984. Obesity is defined as a body mass index ≥30.0 kg/m2. Data was not available for Other Hispanic and Asian persons until 2007 and 2011, respectively.

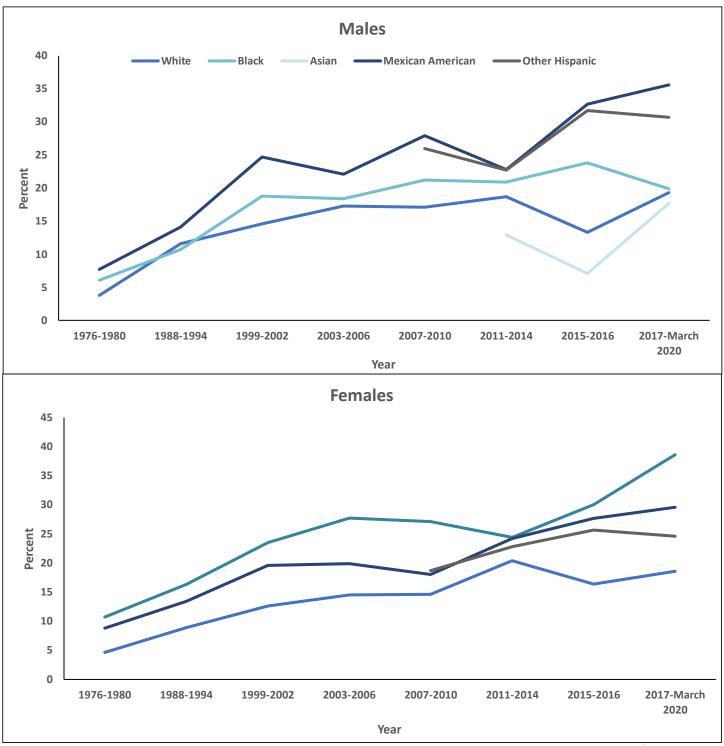
Sources: Health United States, 2013. ²⁰ National Health and Nutrition Examination Survey, 2007-March 2020.

Table 2A. Overweight and Obesity, Adults 18 Years and Older, by State, 2022

	Overweight	Obese	Rank Obese† (1=high)
		% (Crude %)	
United States (median)	34 (34)	34 (34)	
Range	31-37 (31-37)	25-42 (24-41)	
Alabama	34 (34)	38 (38)	6
Alaska	36 (36)	32 (32)	36
Arizona	33 (33)	34 (33)	30
Arkansas	34 (34)	38 (37)	12
California	34 (35)	28 (28)	47
Colorado	36 (36)	25 (25)	52
Connecticut	35 (36)	31 (31)	43
Delaware	33 (34)	38 (38)	11
District of Columbia	31 (31)	25 (24)	51
Florida	33 (34)	32 (32)	38
Georgia	32 (32)	37 (37)	14
Hawaii	33 (34)	27 (26)	49
Idaho	35 (35)	34 (33)	28
Illinois	34 (34)	33 (33)	34
Indiana	33 (33)	38 (38)	7
Iowa	33 (34)	38 (37)	13
Kansas	33 (33)	36 (36)	17
Kentucky	33 (34)	38 (38)	10
Louisiana	31 (32)	40 (40)	3
Maine	32 (33)	33 (33)	33
Maryland	34 (34)	33 (33)	31
Massachusetts	34 (35)	27 (27)	48
Michigan	32 (33)	35 (34)	24
Minnesota	35 (35)	34 (34)	29
Mississippi	32 (33)	40 (39)	4
Missouri	34 (34)	37 (36)	16
Montana	35 (35)	31 (31)	42
Nebraska	35 (35)	36 (35)	21
Nevada	33 (34)	34 (34)	27
New Hampshire	36 (37)	30 (30)	45
New Jersey	36 (37)	29 (29)	46
New Mexico	37 (37)	33 (32)	32
New York North Carolina	33 (34)	30 (30)	44 26
North Dakota	35 (35)	34 (34)	18
Ohio	36 (36) 32 (33)	36 (35) 38 (38)	7
Oklahoma	32 (32)	41 (40)	2
Oregon	35 (36)	31 (31)	40
Pennsylvania	34 (34)	33 (33)	35
Rhode Island	36 (37)	31 (31)	41
South Carolina	34 (35)	36 (35)	22
South Dakota	35 (35)	37 (37)	15
Tennessee	32 (32)	39 (39)	5
Texas	35 (35)	36 (36)	20
Utah	35 (34)	32 (31)	37
Vermont	34 (34)	27 (27)	50
Virginia	32 (32)	35 (35)	23
Washington	34 (35)	32 (32)	39
West Virginia	33 (33)	42 (41)	1
Wisconsin	32 (33)	38 (38)	9
Wyoming	35 (36)	35 (34)	25
Puerto Rico	37 (37)	36 (34)	19

BMI-Body Mass Index. Estimates are age adjusted to the year 2000 US standard population using five age groups: 18-24, 25-34, 35-44, 45-64, ≥65 years. A BMI of 25.0-29.9 kg/m² is overweight; a BMI of ≥30.0 kg/m² is obese. †Based on age adjusted % obese. Source: Behavioral Risk Factor Surveillance System, 2022.

Figure 2D. Obesity Trends, Adolescents 12-19 Years, by Sex and Race/Ethnicity, US, 1976-March 2020



Estimates are crude. Estimates for Mexican Americans in 1976-1980 are from 1982-1984. Obesity is defined as a body mass index at or above the 95th percentile (top 5%). Data was not available for Other Hispanic and Asian persons until 2007 and 2011, respectively.

Source: Health, United States, 2019.²¹ National Health and Nutrition Examination Survey, 2017-March 2020.

Table 2B. Alcohol and Physical Activity, Adults 18 Years and Older, US, 2022

	No leisure-time physical activity in past week	Met recommended levels of aerobic activity*	Heavy Alcohol Consumption**
		Age adjusted % (Crude %)	1
Overall	27 (28)	48 (48)	6 (6)
Sex			
Males	25 (25)	54 (53)	6 (6)
Females	29 (30)	44 (43)	7 (6)
Age (years)			
18-24	20 (20)	59 (59)	5 (5)
25-44	22 (22)	52 (52)	7 (7)
45-64	29 (29)	45 (45)	7 (7)
65 years and above	38 (38)	39 (39)	5 (5)
Race/Ethnicity			
Hispanic	36 (35)	40 (41)	4 (4)
White only	23 (25)	52 (50)	8 (8)
Black only	33 (33)	43 (43)	4 (4)
Asian only	24 (24)	48 (47)	2 (2)
AIAN only or multiple	28 (28)	46 (46)	8 (8)
Sexual orientation			
Gay/lesbian	23 (23)	57 (57)	8 (9)
Heterosexual	26 (28)	49 (48)	6 (6)
Bisexual	31 (22)	41 (47)	12 (10)
Immigration status			
Born in US/US Territory	25 (26)	50 (49)	7 (7)
In US fewer than 10 years	40 (34)	35 (38)	2 (2)
In US 10+ years	29 (32)	45 (42)	4 (4)
Education (25 years and older)			
Some high school or less	51 (53)	29 (27)	5 (5)
High school diploma	37 (39)	39 (37)	7 (6)
Some college	27 (28)	46 (46)	7 (7)
College graduate	14 (14)	59 (59)	7 (7)
Income level			
<100% FPL	45 (44)	33 (34)	4 (4)
100 to less than 200% FPL	37 (38)	39 (38)	6 (5)
≥200% FPL	22 (23)	53 (52)	7 (7)
Insurance status (≥18 years)			
Uninsured	36 (34)	42 (43)	5 (6)
Private	22 (21)	53 (53)	7 (7)
Medicaid/Public/Dual eligible	43 (41)	34 (36)	5 (5)
Medicare (65 years and above)	38 (38)	39 (39)	5 (5)
Other (below 65 years)	27 (31)	51 (47)	5 (6)

AIAN-American Indian or Alaska Native. FPL-federal poverty level. Estimates are age adjusted to the year 2000 US standard population using five age groups: 18-24, 25-34, 35-44, 45-64, ≥65 years. By education, estimates are age adjusted using four age groups: 25-34, 35-44, 45-64, ≥65 years. *Includes 150 minutes of moderate-intensity activity or 75 minutes of vigorous-intensity activity each week. **>14 drinks/week in the past year for males or >7 drinks/week in the past year for females. Source: National Health Interview Survey, 2022.

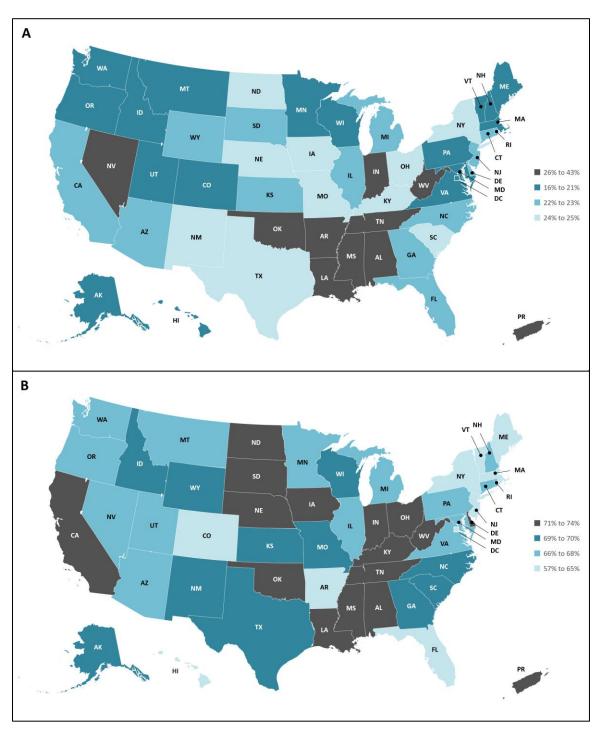
Table 2C. Alcohol, Diet, and Physical Activity, Adults 18 Years and Older, by State, 2019, 2021, and 2022

	Consumed ≥2 fruit	Consumed ≥3 vegetable	Heavy alcohol	Met recommended	No leisure-time physical
A	servings a day	servings a day (2021)	consumption*	levels of aerobic	activity in past week
Age adjusted % (Crude %)	(2021)	44 (44)	(2022)	activity† (2019)	(2022)
United States (median)	24 (24)	11 (11)	7 (7)	45 (45)	23 (23)
Range	14-32 (14-32)	2-18 (2-18)	5-11 (4-10)	24-58 (24-58)	16-43 (15-44)
Alabama	19 (20)	10 (9)	6 (6)	40 (40)	28 (29)
Alaska	25 (24)	14 (14)	8 (8)	51 (51)	21 (22)
Arizona	24 (24)	11 (11)	7 (7)	46 (47)	23 (23)
Arkansas	25 (24)	16 (15)	8 (8)	41 (41)	30 (31)
California	30 (30)	13 (13)	6 (6)	48 (48)	22 (22)
Colorado	27 (27)	13 (13)	8 (8)	52 (52)	17 (17)
Connecticut	28 (28)	14 (14)	6 (6)	46 (47)	23 (23)
Delaware	25 (25)	10 (10)	6 (5)	45 (45)	23 (24)
District of Columbia	30 (30)	16 (17)	9 (10)	46 (46)	16 (15)
Florida			8 (8)	45 (46)	23 (24)
Georgia	25 (25)	13 (13)	6 (6)	41 (42)	23 (24)
Hawaii	24 (24)	13 (12)	8 (8)	50 (51)	21 (21)
Idaho	22 (22)	10 (9)	8 (7)	50 (50)	21 (22)
Illinois	20 (20)	10 (10)	5 (5)	45 (46)	22 (23)
Indiana	24 (24)	14 (13)	6 (6)	40 (41)	27 (28)
Iowa	24 (25)	10 (10)	9 (8)	43 (44)	25 (26)
Kansas	23 (23)	10 (10)	6 (6)	43 (43)	23 (23)
Kentucky	22 (22)	15 (15)	5 (5)	24 (24)	25 (26)
Louisiana	20 (20)	8 (8)	7 (7)	39 (39)	27 (28)
Maine	27 (28)	11 (11)	8 (8)	46 (46)	21 (23)
Maryland	28 (28)	11 (11)	5 (5)	45 (46)	21 (21)
Massachusetts	26 (27)	12 (12)	7 (7)	46 (46)	21 (21)
Michigan	25 (26)	13 (13)	8 (7)	47 (47)	23 (24)
Minnesota	27 (27)	11 (10)	8 (8)	52 (52)	20 (21)
Mississippi	19 (19)	9 (9)	6 (6)	35 (35)	31 (32)
Missouri	20 (20)	9 (9)	9 (8)	41 (41)	24 (25)
Montana	24 (24)	12 (11)	11 (10)	58 (58)	19 (20)
Nebraska	24 (24)	11 (11)	8 (7)	44 (44)	24 (25)
Nevada	24 (24)	10 (10)	7 (7)	44 (44)	26 (26)
New Hampshire	28 (29)	17 (16)	8 (8)	48 (49)	19 (20)
New Jersey	28 (28)	14 (15)	5 (5)		23 (23)
New Mexico	24 (24)	9 (9)	7 (6)	50 (50)	24 (24)
New York	29 (29)	16 (16)	6 (6)	41 (42)	25 (26)
North Carolina	22 (22)	11 (11)	6 (6)	45 (45)	23 (23)
North Dakota	21 (22)	11 (11)	9 (8)	44 (44)	24 (24)
Ohio	22 (22)	11 (11)	7 (7)	43 (43)	24 (25)
Oklahoma	16 (16)	6 (6)	5 (4)	32 (31)	29 (29)
Oregon	23 (24)	11 (11)	9 (8)	50 (51)	18 (19)
Pennsylvania	25 (25)	12 (12)	7 (7)	46 (46)	21 (22)
Rhode Island	27 (28)	14 (14)	7 (7)	43 (43)	23 (24)
South Carolina	23 (23)	13 (12)	7 (7)	41 (41)	25 (26)
South Dakota	23 (23)	11 (11)	7 (7)	42 (42)	22 (23)
Tennessee	21 (21)	13 (12)	7 (7)	40 (40)	26 (28)
Texas	26 (26)	14 (14)	7 (7)	42 (42)	25 (26)
Utah	26 (26)	11 (11)	5 (5)	51 (50)	17 (17)
Vermont	32 (32)	18 (18)	10 (10)	54 (54)	19 (20)
Virginia	25 (25)	11 (11)	7 (7)	43 (44)	20 (21)
Washington	29 (29)	13 (13)	7 (7)	50 (51)	17 (17)
West Virginia	19 (19)	11 (10)	6 (6)	45 (44)	28 (30)
Wisconsin	28 (28)	10 (9)	8 (8)	49 (49)	21 (22)
Wyoming	22 (23)	10 (10)	8 (8)	49 (49)	22 (23)
Puerto Rico	14 (14)	2 (2)	5 (5)	29 (29)	43 (44)

Estimates are age adjusted to the year 2000 US standard population using five age groups: 18-24, 25-34, 35-44, 45-64, ≥65 years. *Males: >14 drinks per week, females: >7 drinks per week during the past 30 days †Includes 150 minutes of moderate-intensity activity or 75 minutes of vigorous-intensity activity each week. ‡Estimates are statistically unstable and not shown. See Special Notes, Page 42.

 $\textbf{Source:} \ \ \textbf{Behavioral Risk Factor Surveillance System, 2019, 2021, and 2022}.$

Figure 2E. No Leisure-time Physical Activity (A) and Excess Body Weight (B), Adults 18 Years and Older, by State, 2022

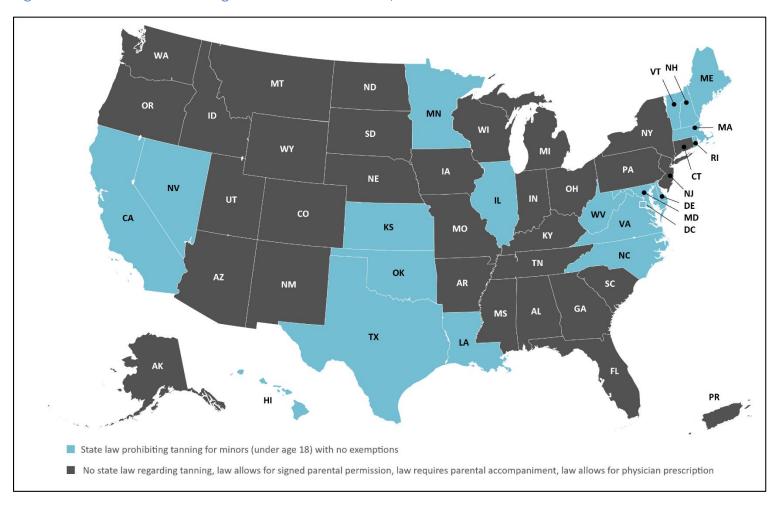


BMI-Body Mass Index. Estimates are age adjusted to the year 2000 US standard population using five age groups: 18-24, 25-34, 35-44, 45-64, ≥65 years. A: No physical activity or exercise other than their job in the past 30 days. B: Excess body weight is defined as a BMI ≥25.0 kg/m².

Source: Behavioral Risk Factor Surveillance System, 2022.

Ultraviolet Radiation

Figure 3A. State Indoor Tanning Restrictions for Minors, 2023



Estimates are crude. There is no medical indication for the use of a tanning device in the diagnosis or treatment of a disease. Reported as of 2023. **Source**: AIM at Melanoma.²²

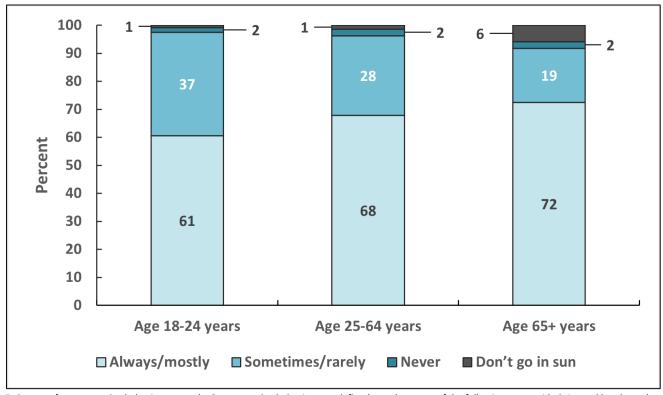


Figure 3B. Sun Protective Behaviors, Adults 18 Years and Older, US, 2020

Estimates of sun protective behavior are crude. Sun protective behaviors are defined as at least one of the following: wear wide-brimmed hat, long-sleeve shirt, sunscreen, or seek the shade. **Source**: National Health Interview Survey, 2020.

Infectious Agents

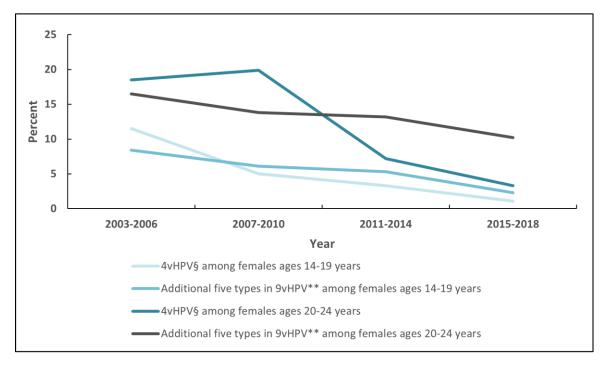
Table 4A. Vaccination Coverage, Youth Ages 13-17, by Sex, Race/Ethnicity, and Poverty Status, US, 2022

		Before 13th Birthday							7 years	
				HPV				HPV		Hepatitis B
	Fei	males	M	lales	C	verall	Females	Males	Overall	Overall
Crude %	Initiation+	Up-to-date*	Initiation	Up-to-date	Initiation	Up-to-date		Up-to-date		≥ 3 doses
Overall	70	43	62	38	66	41	65	61	63	91
Race/Ethnicity										
White	66	43	59	34	63	38	63	57	60	93
Black	79	55	59	38	68	46	69	62	65	92
Hispanic	75	40	64	40	70	40	66	64	65	89
Other	59	39	69	54	63	46	64	64	64	90
Poverty Status										
<100% FPL	78	57	62	37	70	47	67	62	64	89
≥100% FPL	67	39	63	39	65	39	64	60	62	92

HPV-Human Papillomavirus. FPL-Federal Poverty Level. Estimates are crude. †Initiation is defined as ≥ 1 dose of the HPV vaccine. *Up-to-date HPV vaccination is defined as 2 doses separated by 5 months (minus 4 days) for immunocompetent adolescents initiating the HPV vaccine series before their 15th birthday, and 3 doses for all others.

Sources: TeenVaxView, 2022.²³ National Immunization Survey-Teen, 2022.

Figure 4A. Prevalence of Human Papillomavirus Strains Targeted by Vaccines Among Female Adolescents and Adults Ages 14-24 Years, 2003-2018



HPV-Human Papillomavirus. § HPV strains 6, 11, 16, and 18. ** HPV strains 31, 33, 45, 52, and 58. **Source:** Rosenblum HG et al, 2021.²⁴

Table 4B. Human Papillomavirus Vaccination Coverage, Youth, by State, US, 2020-2022

	Before 13th B	irthday† (2020-2022)	13-17 Years (2022)					
		Overall	Females					
Crude %	Up	-to-date*		Up-to	-date*			
United States (median)	41	Rank	65	63	64	Rank		
Range	26-63	(1=low)	37-85	40-85	38-85	(1=low)		
Alabama	46	34	60	59	59	13		
Alaska	34	7	62	54	58	10		
Arizona	34	8	59	65	62	22		
Arkansas	37	16	57	55	56	9		
California	53	44	61	60	61	18		
Colorado	49	40	69	62	66	31		
Connecticut	36	14	74	70	72	43		
Delaware	44	31	68	69	68	36		
District of Columbia	63	48	75	81	78	51		
Florida	29	3	64	54	59	12		
Georgia	31	5	66	57	61	21		
Hawaii	56	47	79	69	74	46		
Idaho	48	36	75	59	67	34		
Illinois	45	33	67	64	66	30		
Indiana	39	19	64	56	60	15		
Iowa	48	38	74	75	75	48		
Kansas	47	35	62	59	61	19		
Kentucky	35	9	58	53	55	7		
Louisiana	43	30	69	65	67	35		
Maine	35	10	66	67	66	32		
Maryland	48	39	79	66	72	45		
Massachusetts	42	27	76	78	77	50		
Michigan	35	11	73	52	62	23		
Minnesota	48	36	66	72	69	38		
Mississippi	‡		37	40	38	1		
Missouri	38	17	64	56	60	16		
Montana	35	12	60	61	60	17		
Nebraska	27	2	56	74	65	28		
Nevada	40	21	64	55	59	14		
New Hampshire	39	20	77	76	76	49		
•	‡		61	66	64	26		
New Jersey New Mexico	41	25	64	58	61	20		
		25		72	71			
New York	41		69			41		
North Carolina	51	43	54	56	55	6		
North Dakota	50	41	74	74	74	47		
Ohio	31	6	65	60	63	25		
Oklahoma	‡		46	46	46	2		
Oregon	42	28	67	64	66	29		
Pennsylvania	45	32	67	66	67	33		
Rhode Island	54	46	85	85	85	52		
South Carolina	37	15	65	44	54	5		
South Dakota	51	42	64	72	68	38		
Tennessee	40	22	66	63	64	28		
Texas	26	1	63	54	59	11		
Utah	36	13	63	48	55	8		
Vermont	40	23	74	70	72	45		
Virginia	43	29	64	61	63	24		
Washington	38	17	71	71	71	43		
West Virginia	‡		62	41	51	4		
Wisconsin	42	26	68	70	69	39		
Wyoming	29	36	52	46	49	3		
Puerto Rico	53	45	69	72	70	40		

[†]Estimates based on vaccinations received before 13th birthday among 13–17-year-olds. Multiple years were combined for statistical reliability. *Up-to-date HPV vaccination is defined as 2 doses separated by 5 months (minus 4 days) for immunocompetent adolescents initiating the HPV vaccine series before their 15th birthday, and 3 doses for all others. ‡Estimates are statistically unstable and not shown. See Special Notes, Page 42.

Source: National Immunization Survey-Teen, 2020-2022.

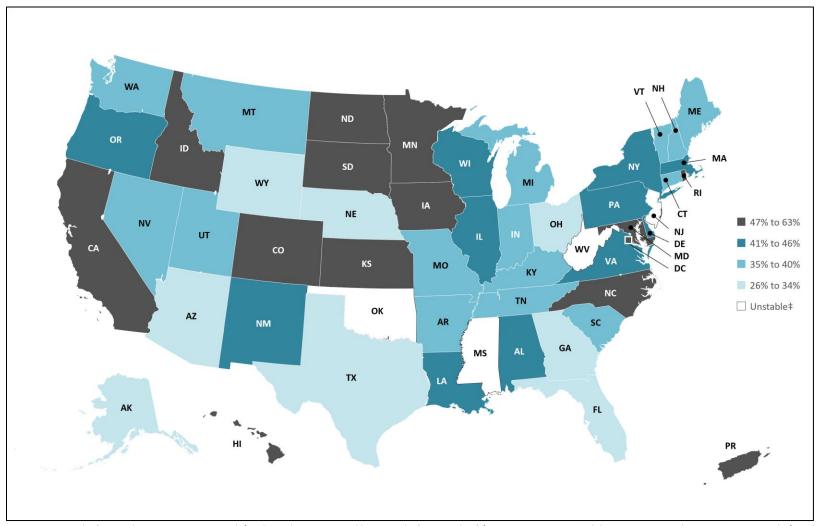


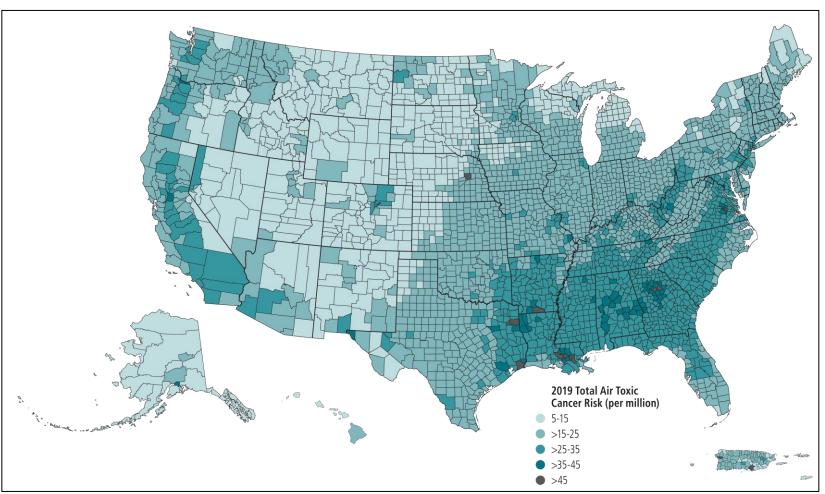
Figure 4B. Up-to-date Human Papillomavirus Vaccination Before 13th Birthday, Adolescents 13-17 Years, by State, 2020-2022

Estimates are crude. *Up-to-date HPV vaccination is defined as 2 doses separated by 5 months (minus 4 days) for immunocompetent adolescents initiating the HPV vaccine series before their 15th birthday, and 3 doses for all others. Estimates based on vaccinations received before 13th birthday among 13–17-year-olds. Multiple years were combined for statistical reliability. ‡Estimates are statistically unstable and not shown. See Special Notes, Page 42.

Source: NIS Teen 2020-2022.

Occupational and Environmental Cancer Risk Factors

Figure 5A. Total Lifetime Air Toxic Cancer Risk from Prolonged Air Toxic Exposure, US, 2019

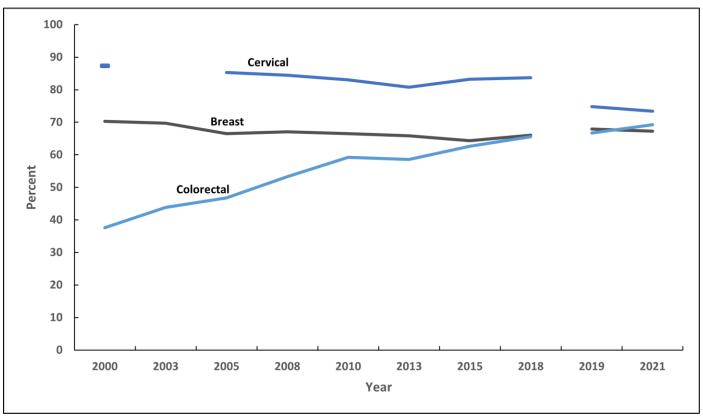


The EPA defines an acceptable upper level of air toxic cancer risk, or the lifetime (70 years) cancer risk from exposure to known air toxics everyday, as 100 in 1 million persons. However, other health and risk factors can lower this acceptable limit.

Source: 2019 Air Toxic Screening Assessment, US EPA.²⁵

Cancer Screening

Figure 6A. Trends in Breast, Cervical, and Colorectal Cancer Screening, US, 2000-2021



Respondents' sex was self-reported. The NHIS underwent a significant redesign in 2019 preventing comparability to prior years indicated by the line break. Breast cancer screening is defined as mammography in the past 2 years among females 40+ years. Breast cancer screening estimates are age-adjusted to the year 2000 US standard population using three age groups: 40-49, 50-64, and 65+ years. Cervical cancer screening is defined as Pap test in the past 3 years (2000-on) among females 21-65 years or HPV and Pap co-testing in the past 5 years (2015-on) among females 30-65 years who have not had a hysterectomy; hysterectomy data not available in 2003. Cervical cancer screening estimates are age-adjusted to the year 2000 US standard population using four age groups: 21-29, 30-39, 40-49, and 50-65 years. Colorectal cancer screening is defined as colonoscopy, sigmoidoscopy, and stool-testing in the past 10, 5, and 1 years; CT colonography in the past 5 years (2010-on); sDNA in the past 3 years (2018-on) among adults 50+ years. Colorectal cancer screening estimates are age-adjusted to the year 2000 US standard population using two age groups: 50-64 and 65+ years.

Sources: National Health Interview Survey, 2000-2021.

Table 6A. Mammography, Females 40 Years and Older, US, 2021

	ACS*	USPSTF†	USPSTF††			
	≥45 yrs	50-74 yrs	40-74 yrs			
	A	Age adjusted % (Crude %				
Overall	64 (65)	76 (76)	69 (71)			
Age (years)						
40-44			52 (52)			
45-54	52 (50)		71 (71)			
55-64	76 (76)		76 (76)			
50-64		76 (76)				
65-74	77 (77)	77 (77)	77 (77)			
75 years and above	56 (56)					
Race/Ethnicity						
Hispanic	60 (60)	74 (74)	67 (66)			
White only	65 (67)	76 (76)	69 (72)			
Black only	69 (70)	82 (82)	74 (76)			
Asian only	56 (56)	67 (67)	62 (63)			
AIAN only or multiple	47 (47)	59 (59)	52 (53)			
Sexual orientation						
Gay/lesbian	70 (71)	78 (78)	64 (68)			
Heterosexual	64 (66)	76 (76)	69 (71)			
Bisexual	55 (48)	‡	59 (57)			
Immigration status						
Born in US/US territory	65 (67)	77 (77)	69 (72)			
In US fewer than 10 years	37 (36)	60 (61)	53 (50)			
In US 10+ years	60 (61)	74 (74)	68 (69)			
Education						
Less than high school	49 (51)	64 (64)	57 (59)			
High school diploma	60 (62)	73 (73)	64 (68)			
Some college	65 (67)	77 (77)	67 (71)			
College graduate	71 (71)	81 (81)	75 (76)			
Income level						
<100% FPL	52 (54)	65 (65)	59 (61)			
100 to less than 200% FPL	56 (58)	70 (70)	60 (63)			
≥200% FPL	67 (69)	79 (79)	72 (74)			
Insurance status (≥18 years)						
Uninsured	28 (29)	40 (42)	37 (37)			
Private	68 (69)	80 (80)	73 (75)			
Medicaid/Public/Dual eligible	58 (59)	71 (71)	63 (64)			
Medicare (65 years and above)	67 (67)	75 (75)	75 (75)			
Other (below 65 years)	64 (68)	77 (77)	75 (76)			

ACS-American Cancer Society, USPSTF-United States Preventive Services Task Force. AIAN-American Indian or Alaska Native. FPL-federal poverty level. Respondents' sex was self-reported. *Mammogram within the past year (ages 45-54 years) or past two years (ages ≥55 years). ACS estimates are age-adjusted to the year 2000 US standard population using 3 age groups: 45-49, 50-64, and ≥65 years. †USPSTF 2016 Recommendation: Mammogram within the past two years (ages 50-74). Uninsured 50-64 years. Estimates are age-adjusted using 2 age groups: 50-64 and 65-74 years and by 3 age groups: 50-54, 55-59, and 60-64 years for uninsured. †*USPSTF 2024 Recommendation: Mammogram within the past two years (ages 40-74). Uninsured 40-64 years. Estimates are age-adjusted using 3 age groups: 40-49, 50-64, and 65-74 years and by 3 age groups: 40-49, 50-59, and 60-64 years for uninsured. ‡Estimates are statistically unstable and not shown. See Special Notes, Page 42.

Source: National Health Interview Survey, 2021.

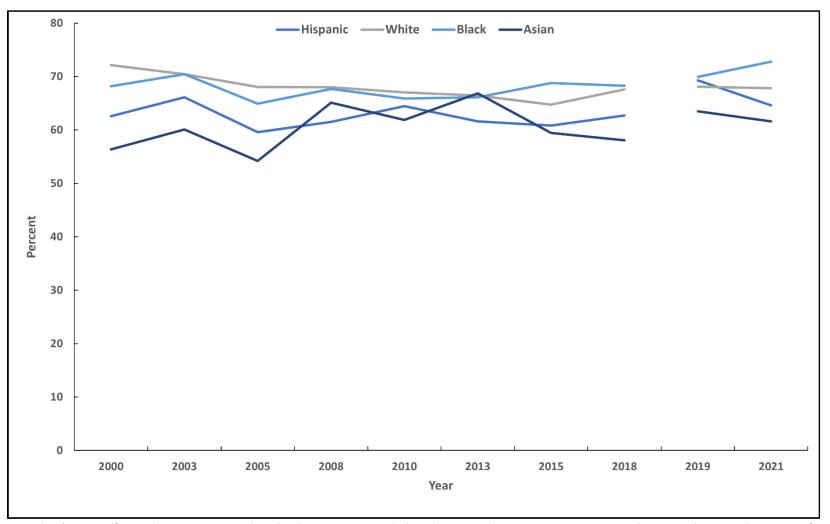
Table 6B. Mammography, Females 40 Years and Older, by State, 2022

	A	CS*	USPSTF Old F	USPSTF Old Recommendation†		USPSTF 2024 New Recommendation††	
	≥45 yrs Uninsured 45-64 yrs		50-74 yrs Uninsured 50-64 yrs		40-74 yrs Uninsured 40-64		
	•	•	Age adjuste	ed % (Crude %)	•	•	
United States (median)	66 (67)	30 (30)	76 (76)	40 (39)	70 (72)	35 (35)	
Range	56-76 (59-78)	18-63 (17-62)	64-86 (65-86)	27-51 (22-48)	59-79 (61-82)	16-55 (16-58)	
Alabama	65 (68)	41 (43)	76 (76)	‡ (‡)	70 (72)	38 (37)	
Alaska	58 (60)	‡ (‡)	69 (69)	‡ (‡)	63 (64)	‡ (‡)	
Arizona	63 (65)	33 (34)	75 (75)	51 (48)	66 (69)	39 (36)	
Arkansas	64 (66)	‡ (‡)	75 (75)	‡ (‡)	69 (71)	‡ (‡)	
California	64 (65)	37 (38)	76 (77)	‡ (‡)	66 (70)	35 (35)	
Colorado	62 (64)	18 (17)	71 (71)	30 (30)	64 (66)	30 (30)	
Connecticut	72 (74)	63 (62)	81 (82)	‡ (‡)	77 (79)	55 (58)	
Delaware	70 (72)	‡ (‡)	80 (80)	‡ (‡)	72 (75)	‡ (‡)	
District of Columbia	66 (69)	‡ (‡)	78 (77)	‡ (‡)	69 (71)	‡ (‡)	
Florida	67 (69)	30 (30)	78 (78)	49 (48)	70 (74)	36 (36)	
Georgia	65 (68)	25 (28)	76 (76)	42 (43)	70 (72)	39 (39)	
Hawaii	70 (71)	‡ (‡)	78 (79)	‡ (‡)	73 (75)	‡ (‡)	
Idaho	60 (62)	28 (28)	68 (69)	‡ (‡)	60 (63)	22 (24)	
Illinois	65 (65)	35 (35)	72 (73)	‡ (‡)	65 (68)	37 (40)	
Indiana	67 (69)	35 (35)	78 (78)	‡ (‡)	70 (73)	38 (40)	
Iowa	69 (71)	47 (47)	79 (80)	‡ (‡)	71 (74)	48 (49)	
Kansas	65 (67)	23 (25)	74 (74)	34 (35)	67 (70)	33 (33)	
Kentucky	65 (67)	‡ (‡)	73 (73)	‡ (‡)	67 (69)	‡ (‡)	
Louisiana	73 (75)	‡ (‡)	82 (83)	‡ (‡)	76 (79)	‡ (‡)	
Maine	70 (73)	30 (29)	81 (82)	44 (39)	72 (77)	44 (41)	
Maryland	73 (75)	35 (34)	83 (83)	44 (41)	76 (78)	37 (33)	
Massachusetts	75 (76)	‡ (‡)	85 (85)	‡ (‡)	76 (79)	‡ (‡)	
Michigan	66 (69)	‡ (‡)	77 (78)	‡ (‡)	73 (75)	‡ (‡)	
Minnesota	69 (71)	34 (36)	79 (80)	40 (43)	72 (74)	35 (36)	
Mississippi	65 (67)	‡ (‡)	73 (73)	‡ (‡)	70 (71)	34 (32)	
Missouri	64 (66)	26 (25)	74 (75)	35 (35)	70 (72)	31 (31)	
Montana	64 (66)	19 (19)	75 (75)	‡ (‡)	66 (69)	27 (27)	
Nebraska	64 (66)	28 (28)	76 (77)	‡ (‡)	68 (70)	30 (25)	
Nevada	58 (61)	‡ (‡)	70 (71)	‡ (‡)	61 (65)	41 (38)	
New Hampshire	70 (72)	‡ (‡)	81 (81)	‡ (‡)	74 (77)	‡ (‡)	
New Jersey	66 (67)	‡ (‡)	76 (76)	‡ (‡)	72 (74)	46 (46)	
New Mexico	56 (60)	25 (30)	69 (69)	‡ (‡)	59 (62)	46 (44)	
New York	69 (71)	36 (35)	79 (79)	‡ (‡)	74 (76)	45 (45)	
North Carolina	69 (71)	43 (43)	79 (79)	‡ (‡)	72 (74)	48 (48)	
North Dakota	68 (70)	‡ (‡)	80 (80)	‡ (‡)	73 (75)	‡ (‡)	
Ohio	64 (66)	29 (29)	75 (76)	40 (40)	68 (71)	34 (34)	
Oklahoma	61 (63)	‡ (‡)	69 (69)	‡ (‡)	63 (65)	16 (16)	
Oregon	67 (68)	‡ (‡)	78 (78)	‡ (‡)	68 (71)	‡ (‡)	
Pennsylvania	66 (67)	‡ (‡)	76 (76)	‡ (‡)	72 (73)	‡ (‡)	
Rhode Island	76 (78)	‡ (‡)	86 (86)	‡ (‡)	79 (82)	‡ (‡)	
South Carolina	69 (71)	26 (25)	79 (80)	36 (36)	71 (74)	32 (31)	
South Dakota	66 (67)	‡ (‡)	72 (73)	‡ (‡)	75 (74)	50 (46)	
Tennessee	65 (67)	19 (20)	75 (75)	27 (27)	69 (71)	28 (27)	
Texas	64 (65)	20 (20)	74 (74)	33 (32)	66 (68)	31 (31)	
Utah	61 (62)	38 (37)	74 (75)	50 (48)	65 (67)	45 (45)	
Vermont	64 (66)	‡ (‡)	76 (76)	‡ (‡)	65 (69)	‡ (‡)	
Virginia	68 (69)	23 (23)	77 (77)	‡ (‡)	71 (73)	29 (30)	
Washington	64 (66)	29 (30)	75 (75)	40 (40)	65 (68)	34 (35)	
West Virginia	65 (68)	‡ (‡)	76 (76)	‡ (‡)	69 (72)	‡ (‡)	
Wisconsin	70 (72)	42 (43)	82 (82)	‡ (‡)	72 (76)	30 (33)	
Wyoming	58 (59)	33 (35)	64 (65)	39 (38)	59 (61)	32 (32)	
Puerto Rico	71 (72)	‡ (‡)	84 (84)	‡ (‡)	77 (79)	‡ (‡) hin the past year (ages 45-	

ACS-American Cancer Society, USPSTF-United States Preventive Services Task Force. Respondents' sex was self-reported. *Mammogram within the past year (ages 45-54 years) or past two years (ages ≥55 years). ACS estimates are age-adjusted to the year 2000 US standard population using 3 age groups: 45-49, 50-64, and ≥65 years and by 3 age groups: 45-49, 50-59, and 60-64 years for uninsured. †USPSTF 2016 Recommendation: Mammogram within the past two years (ages 50-74). Uninsured 50-64 years. Estimates are age-adjusted using 2 age groups: 50-64 and 65-74 years and by 3 age groups: 50-54, 55-59, and 60-64 years for uninsured. †USPSTF 2024 Recommendation: Mammogram within the past two years (ages 40-74). Uninsured 40-64 years. Estimates are age-adjusted using 3 age groups: 40-49, 50-64, and 65-74 years and by 3 age groups: 40-49, 50-59, and 60-64 years for uninsured. ‡Estimates are statistically unstable and not shown. See Special Notes, Page 42.

Source: Behavioral Risk Factor Surveillance System, 2022.

Figure 6B. Trends in Mammography Within the Past Two Years, Females 40 Years and Older, by Race/Ethnicity, US, 2000-2021



Respondents' sex was self-reported. Estimates are age-adjusted to the year 2000 US standard population using three age groups: 40-49, 50-64, and 65+ years. The NHIS underwent a significant redesign in 2019 preventing comparability to prior years indicated by the line break.

Sources: National Health Interview Survey, 2000-2021

Table 6C. Cervical Cancer Screening, Females 21-65 Years, US, 2021

	Pap Test in Past 3 Years	Pap Test and HPV Test in Past 5 Years	ACS†	USPSTF**
	25-65 yrs	25-65 yrs	25-65 yrs	21-65 yrs
	,	Age adjusted	•	•
Overall	72 (72)	38 (38)	76 (76)	73 (73)
Age (years)				
21-29				64 (64)
25-29	74 (74)	45 (45)	77 (77)	
30-39	77 (77)	48 (48)	80 (80)	80 (80)
40-49	72 (72)	36 (36)	76 (76)	76 (76)
50-65	68 (68)	27 (27)	72 (72)	72 (72)
Race/Ethnicity				
Hispanic	66 (66)	37 (38)	69 (69)	66 (66)
White only	75 (75)	39 (38)	80 (80)	78 (77)
Black only	74 (74)	40 (40)	76 (76)	72 (71)
Asian only	61 (61)	26 (26)	64 (63)	62 (61)
AIAN only or multiple	65 (63)	31 (29)	68 (66)	65 (62)
Sexual orientation				
Gay/lesbian	66 (66)	36 (40)	73 (72)	69 (67)
Heterosexual	73 (72)	37 (37)	76 (76)	74 (74)
Bisexual	76 (76)	52 (54)	82 (80)	78 (68)
Immigration status				
Born in US/US territory	75 (75)	40 (40)	79 (79)	76 (76)
In US fewer than 10 years	54 (55)	30 (29)	55 (56)	53 (53)
In US 10+ years	67 (66)	32 (31)	69 (69)	66 (67)
Education (25 years and older)		, ,	, ,	,
Less than high school	54 (52)	28 (25)	56 (55)	56 (55)
High school diploma	64 (64)	31 (32)	67 (67)	67 (66)
Some college	74 (74)	43 (43)	78 (78)	77 (77)
College graduate	79 (79)	40 (40)	83 (83)	83 (83)
Income level	Ì	. ,	, ,	, ,
<100% FPL	60 (61)	33 (35)	64 (66)	63 (64)
100 to <200% FPL	63 (64)	35 (36)	67 (67)	65 (65)
≥200% FPL	76 (76)	39 (39)	80 (79)	77 (76)
Insurance status (≥18 years)	, , ,		, ,	, ,
Uninsured	51 (53)	30 (31)	57 (58)	55 (55)
Private	77 (77)	39 (38)	80 (80)	78 (77)
Medicaid/Public/Dual eligible	65 (66)	38 (40)	68 (69)	67 (68)
Medicare (65 years and above)	52 (52)	17 (17)	57 (57)	57 (57)
Other (below 65 years)	70 (67)	38 (36)	73 (70)	70 (68)

ACS-American Cancer Society, USPSTF-United States Preventive Services Task Force. AIAN-American Indian or Alaska Native. FPL-federal poverty level. Respondents' sex was self-reported. Estimates are among females who have not had a hysterectomy. †Pap test in the past 3 years OR Pap test and HPV test within the past 5 years among females 25-65 years. Pap test, combined pap and HPV tests, and ACS estimates are age-adjusted to the year 2000 US standard population using 4 age groups: 25-29, 30-39, 40-49, and 50-65 years. **Pap test in the past 3 years among females 21-65 years OR Pap test and HPV test within the past 5 years among females 30-65 years. USPSTF estimates are age-adjusted using 4 age groups: 21-29, 30-39, 40-49, and 50-65 years. For education, USPSTF estimates are adjusted using the 25-65 age adjustment above. Primary HPV testing estimates are not available due to questionnaire limitations.

Source: National Health Interview Survey, 2021.

Table 6D. Cervical Cancer Screening, Females 21-65 Years, by State, 2022

	Pap Test Within the	Pap test and HPV Test Within	-	ACS†	USPSTF§
	Past 3 Years 25-65 yrs	the Past 5 years 25-65 yrs	25-65 yrs	Uninsured (25-64 yrs)	21-65 yrs
	23-03 yıs		justed % (Crude %)	Offilisureu (25-04 yrs)	21-03 yis
United States (median)	76 (76)	58 (56)	87 (86)	74 (75)	86 (86)
Range	67-86 (67-86)	48-74 (46-74)	81-93 (81-93)	66-84 (64-84)	80-93 (79-92)
Alabama	81 (80)	51 (51)	88 (88)	‡ (‡)	88 (87)
Alaska	67 (67)	56 (56)	81 (81)	‡ (‡)	80 (80)
Arizona	73 (73)	59 (57)	83 (83)	84 (81)	83 (82)
Arkansas	73 (73)	60 (59)	86 (87)	‡ (‡)	86 (86)
California	79 (79)	65 (64)	89 (89)	79 (79)	88 (88)
Colorado	75 (74)	58 (58)	86 (86)	73 (75)	84 (85)
Connecticut	86 (86)	58 (55)	92 (92)	‡ (‡)	93 (92)
Delaware	78 (78)	62 (56)	89 (88)	‡ (‡)	86 (86)
District of Columbia	79 (78)	70 (71)	90 (90)	‡ (‡)	90 (89)
Florida	78 (78)	62 (61)	88 (89)	83 (83)	87 (88)
Georgia	79 (79)	57 (57)	88 (88)	81 (81)	88 (88)
Hawaii	79 (79)	48 (46)	87 (87)	‡ (‡)	86 (86)
Idaho	72 (71)	50 (49)	83 (82)	‡ (‡)	83 (82)
Illinois	72 (71)	56 (54)	84 (83)	‡ (‡)	83 (83)
Indiana	74 (74) 76 (75)	56 (54) 57 (56)	86 (86)	+ (+) + (+)	86 (86)
		` ′			· · · · · · · · · · · · · · · · · · ·
lowa	77 (77)	53 (52)	87 (87)	84 (84)	87 (86)
Kansas	75 (75)	52 (52)	86 (86)	66 (70)	85 (85)
Kentucky	76 (75)	55 (54)	85 (84)	‡ (‡)	85 (85)
Louisiana	81 (79)	61 (61)	89 (89)	‡ (‡)	90 (89)
Maine	79 (78)	64 (61)	90 (89)	72 (71)	89 (89)
Maryland	80 (79)	62 (60)	89 (89)	75 (76)	89 (89)
Massachusetts	83 (82)	65 (64)	92 (91)	‡ (‡)	91 (91)
Michigan	77 (76)	61 (59)	88 (87)	‡ (‡)	87 (87)
Minnesota	73 (73)	58 (56)	86 (85)	74 (77)	84 (84)
Mississippi	76 (76)	55 (57)	88 (88)	‡ (‡)	88 (88)
Missouri	75 (73)	54 (53)	83 (83)	73 (74)	82 (82)
Montana	74 (73)	57 (56)	86 (86)	‡ (‡)	84 (84)
Nebraska	74 (73)	57 (57)	84 (84)	‡ (‡)	84 (84)
Nevada	73 (73)	56 (54)	82 (82)	‡ (‡)	81 (81)
New Hampshire	76 (76)	56 (54)	88 (88)	‡ (‡)	87 (87)
New Jersey	82 (82)	63 (60)	91 (90)	77 (78)	89 (89)
New Mexico	71 (71)	58 (56)	82 (81)	‡ (‡)	82 (81)
New York	82 (82)	61 (58)	90 (90)	78 (77)	89 (90)
North Carolina	77 (77)	61 (60)	87 (87)	67 (72)	85 (86)
North Dakota	76 (76)	53 (53)	86 (86)	‡ (‡) ´	85 (85)
Ohio	76 (76)	57 (56)	87 (86)	76 (72)	86 (86)
Oklahoma	73 (73)	53 (53)	84 (83)	66 (69)	84 (83)
Oregon	76 (76)	63 (63)	87 (87)	‡ (‡)	87 (87)
Pennsylvania	79 (78)	58 (57)	88 (88)	‡ (‡)	87 (87)
Rhode Island	80 (79)	61 (59)	89 (88)	‡ (‡)	88 (88)
South Carolina	77 (76)	57 (56)	86 (85)	69 (67)	86 (85)
South Dakota	82 (81)	60 (57)	90 (88)	‡ (‡)	89 (88)
Tennessee	76 (75)	59 (58)	87 (86)	‡ (‡)	86 (85)
Texas	76 (75) 76 (75)	59 (58)	85 (85)	+ (+) 67 (64)	86 (85)
Utah	73 (72)	55 (56)	85 (85)	66 (65)	85 (85)
Vermont	69 (69)	59 (56)	85 (84)	‡ (‡) + (+)	83 (82)
Virginia	78 (78)	53 (51)	86 (86)	‡ (‡) 77 (70)	86 (86)
Washington	71 (71)	57 (56)	84 (84)	77 (78)	83 (83)
West Virginia	71 (70)	55 (53)	82 (82)	‡ (‡)	81 (81)
Wisconsin	77 (76)	61 (59)	89 (88)	‡ (‡)	89 (89)
Wyoming	71 (69)	51 (49)	83 (81)	‡ (‡)	80 (79)
Puerto Rico	84 (84)	74 (74)	93 (93)	‡ (‡)	91 (91)

ACS-American Cancer Society, USPSTF-United States Preventive Services Task Force. Respondents' sex was self-reported. Estimates for 2022 are not comparable to prior years because of questionnaire changes. Primary HPV testing estimates are not available due to questionnaire limitations. Estimates are among females who have not had a hysterectomy. †Pap test in the past 3 years OR Pap test and HPV test within the past 5 years among females 25-65 years. Pap test, combined HPV and Pap and ACS estimates are age-adjusted to the year 2000 US standard population using four age groups: 25-29, 30-39, 40-49, and 50-65 years. Uninsured estimates are age adjusted using three age groups: 25-29, 30-39, 40-49, and 50-65 years. WSPSTF estimates are age-adjusted using four age groups: 21-29, 30-39, 40-49, and 50-65 years. ‡Estimates are statistically unstable and not shown. See Special Notes, Page 42.

Source: Behavioral Risk Factor Surveillance System, 2022.

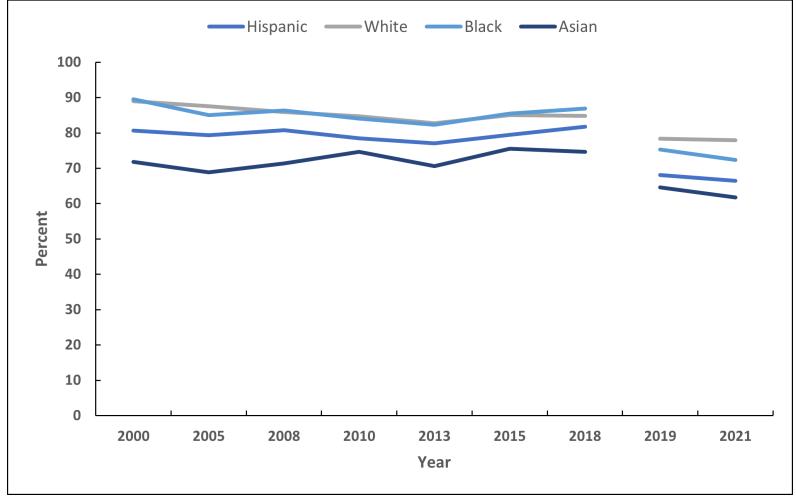


Figure 6C. Trends in Cervical Cancer Screening, Females 21-65 Years, by Race/Ethnicity, US, 2000-2021

Respondents' sex was self-reported. Estimates are age-adjusted to the year 2000 US standard population using four age groups: 21-29, 30-39, 40-49, and 50-65 years. The NHIS underwent a significant redesign in 2019 preventing comparability to prior years indicated by the line break. Cervical cancer screening is defined as Pap test in the past 3 years (2000-2021) among females 21-65 years or HPV and Pap co-testing in the past 5 years (2015-2021) among females 30-65 years who have not had a hysterectomy; hysterectomy data not available in 2003.

Sources: National Health Interview Survey, 2000-2021.

Table 6E. Colorectal Cancer Screening, Adults 45 Years and Older, US, 2021

	Stool Test*	Colonoscopy†	ACS**	USPSTF§
Age adjusted % (Crude %)		≥45 yrs		45-75 yrs
Overall	10 (10)	55 (58)	59 (62)	57 (61)
Sex				
Males	9 (10)	55 (58)	58 (62)	55 (60)
Females	10 (11)	55 (58)	60 (63)	58 (63)
Age (years)				
45-49	3 (3)	18 (18)	20 (20)	20 (20)
50-54	9 (9)	43 (43)	50 (50)	50 (50)
55-64	11 (11)	65 (65)	70 (70)	70 (70)
65-75				80 (80)
65-74	15 (15)	74 (74)	80 (80)	
75 years and above	10 (10)	67 (67)	70 (70)	
Race/Ethnicity	, ,			
Hispanic	14 (13)	46 (43)	52 (49)	50 (48)
White only	9 (10)	57 (62)	61 (66)	59 (65)
Black only	11 (12)	58 (60)	61 (64)	58 (62)
Asian only	10 (10)	45 (45)	50 (51)	48 (50)
AIAN only or multiple	10 (10)	48 (51)	52 (55)	51 (55)
Sexual orientation	, ,	, ,	, ,	,
Gay/Lesbian	12 (12)	57 (58)	64 (65)	60 (64)
Heterosexual	10 (10)	55 (58)	59 (63)	57 (62)
Bisexual	‡ (‡)	48 (42)	51 (46)	50 (46)
Immigration status	, ,	, ,	,	,
Born in US/US Territory	9 (10)	57 (61)	61 (65)	59 (64)
In US fewer than 10 years	9 (10)	25 (20)	29 (26)	28 (25)
In US 10+ years	12 (12)	48 (48)	53 (53)	51 (52)
Education	, ,	, ,	, ,	,
Less than high school	11 (12)	43 (47)	48 (52)	45 (49)
High school diploma	9 (10)	51 (55)	55 (59)	53 (58)
Some college	11 (12)	56 (60)	61 (65)	59 (64)
College graduate	9 (9)	60 (63)	64 (67)	62 (66)
Income level	, ,	, ,	, ,	,
<100% FPL	11 (12)	42 (44)	47 (49)	45 (48)
100 to <200% FPL	12 (13)	47 (52)	52 (57)	49 (55)
≥200% FPL	9 (10)	58 (61)	62 (65)	60 (64)
Insurance status (≥18 years)	, ,	, ,	, ,	, ,
Uninsured	‡ (4)	20 (18)	23 (21)	23 (21)
Private	9 (9)	59 (59)	63 (63)	60 (62)
Medicaid/Public/Dual eligible	11 (11)	48 (48)	51 (52)	50 (52)
Medicare (65 years and above)	15 (15)	70 (70)	75 (75)	79 (77)
Other (below 65 years)	12 (14)	56 (62)	60 (67)	60 (67)

ACS-American Cancer Society, USPSTF-United States Preventive Services Task Force. AIAN-American Indian or Alaska Native. FPL-federal poverty level. *Age ≥45 years: Fecal occult blood test (FOBT) OR fecal immunochemical test (FIT) within the past 1 year OR sDNA test within the past 3 years. †Within the past 10 years. **Age ≥45 years: FOBT/FIT, sigmoidoscopy, colonoscopy, computed tomography (CT) colonography, OR sDNA test in the past 1, 5, 10, 5 and 3 years, respectively. Stool testing, colonoscopy, and ACS estimates are age adjusted to the year 2000 US standard population using three age groups: 45-49, 50-64, and ≥65 years. §For ages 45-75: FOBT/FIT, sigmoidoscopy, colonoscopy, computed tomography (CT) colonography, OR sDNA test in the past 1, 5, 10, 5 and 3 years, respectively, OR sigmoidoscopy in past 10 years with FOBT/FIT in past 1 year. USPSTF estimates are age adjusted using three age groups: 45-49, 50-64, and 65-75 years. ‡Estimates are statistically unstable and not shown. See Special Notes, Page 42.

Source: National Health Interview Survey, 2021.

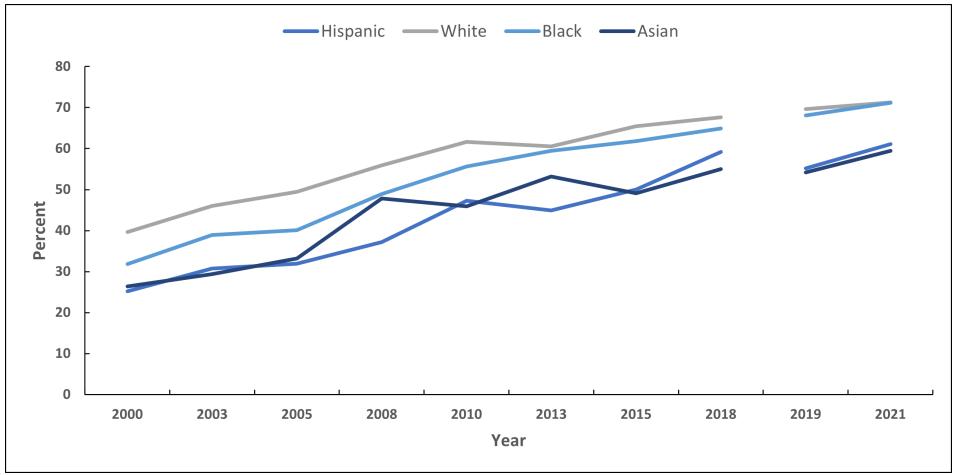
Table 6F. Colorectal Cancer Screening, Adults 45 Years and Older, by State, 2022

	Stool Test*	Colonoscopy†		ACS**	USPSTF¶
Age adjusted % (Crude %)	≥45 yrs	≥45 yrs	≥45 yrs	No health insurance 45- 64 yrs**	45-75 yrs
United States (median)	7 (7)	59 (63)	64 (68)	24 (25)	62 (67)
Range	4-27 (4-29)	38-67 (40-71)	55-71 (58-75)	11-35 (14-38)	54-70 (57-76)
Alabama	7 (8)	60 (64)	65 (69)	19 (22)	63 (68)
Alaska	7 (7)	56 (58)	61 (63)	19 (21)	59 (62)
Arizona	8 (8)	55 (59)	60 (64)	17 (17)	57 (62)
Arkansas	7 (8)	57 (61)	61 (65)	29 (31)	60 (64)
California	14 (15)	49 (52)	60 (63)	22 (22)	58 (62)
Colorado	8 (8)	57 (60)	64 (67)	21 (22)	61 (66)
Connecticut	7 (7)	67 (71)	71 (75)	35 (38)	70 (76)
Delaware	6 (6)	61 (66)	66 (71)	‡ (‡)	65 (71)
District of Columbia	11 (11)	63 (66)	69 (72)	‡ (‡)	68 (71)
Florida	9 (10)	60 (64)	65 (69)	20 (21)	63 (68)
Georgia	9 (9)	59 (62)	64 (67)	24 (25)	62 (66)
Hawaii	10 (10)	56 (60)	63 (67)	‡ (‡)	62 (67)
Idaho	5 (6)	57 (61)	61 (65)	22 (23)	59 (64)
Illinois	6 (7)	59 (62)	63 (66)	33 (33)	62 (65)
Indiana	7 (8)	61 (65)	66 (70)	27 (28)	65 (70)
lowa	6 (6)	60 (64)	64 (69)	25 (25)	62 (68)
Kansas	7 (7)	58 (61)	63 (66)	21 (22)	61 (66)
Kentucky			65 (68)		63 (67)
Louisiana	8 (8) 9 (10)	61 (63) 61 (65)	66 (71)	‡ (‡) 23 (22)	64 (70)
		63 (68)	67 (73)		66 (73)
Maine	6 (7)			24 (26)	\ /
Maryland	9 (10)	63 (67)	69 (73)	29 (28)	68 (72)
Massachusetts	6 (6)	64 (67)	68 (72)	27 (‡)	66 (72)
Michigan	9 (9)	62 (67)	67 (72)	22 (23)	65 (71)
Minnesota	6 (6)	61 (65)	65 (70)	26 (28)	64 (70)
Mississippi	4 (4)	59 (62)	62 (65)	19 (19)	59 (63)
Missouri	7 (7)	58 (62)	62 (66)	26 (25)	61 (66)
Montana	7 (7)	56 (61)	61 (66)	27 (28)	59 (66)
Nebraska	6 (6)	57 (60)	61 (64)	19 (20)	59 (64)
Nevada	10 (10)	53 (57)	58 (62)	‡ (‡)	56 (61)
New Hampshire	6 (6)	62 (67)	67 (72)	27 (31)	65 (72)
New Jersey	7 (7)	59 (63)	63 (67)	17 (16)	60 (65)
New Mexico	9 (9)	51 (55)	57 (61)	25 (25)	54 (59)
New York	7 (7)	62 (66)	66 (70)	28 (28)	65 (69)
North Carolina	6 (7)	62 (65)	65 (69)	30 (29)	63 (68)
North Dakota	6 (6)	58 (62)	62 (67)	‡ (‡)	61 (66)
Ohio	7 (7)	60 (64)	64 (69)	26 (27)	63 (68)
Oklahoma	9 (9)	53 (56)	59 (62)	20 (20)	57 (61)
Oregon	9 (9)	56 (59)	62 (66)	‡ (‡)	61 (66)
Pennsylvania	7 (8)	60 (64)	64 (68)	33 (33)	62 (67)
Rhode Island	6 (7)	65 (71)	69 (75)	22 (25)	68 (75)
South Carolina	8 (8)	62 (67)	66 (71)	28 (28)	64 (71)
South Dakota	5 (5)	58 (62)	62 (67)	11 (‡)	60 (66)
Tennessee	6 (6)	57 (61)	61 (65)	14 (14)	59 (65)
Texas	8 (9)	56 (58)	61 (63)	26 (27)	59 (62)
Utah	5 (5)	61 (63)	64 (66)	21 (20)	63 (65)
Vermont	6 (6)	60 (65)	64 (70)	23 (22)	63 (70)
Virginia	8 (8)	63 (66)	68 (71)	19 (19)	66 (71)
Washington	10 (11)	57 (61)	64 (68)	23 (23)	63 (68)
West Virginia	9 (9)	60 (64)	65 (69)	19 (21)	63 (68)
Wisconsin	7 (7)	62 (67)	68 (72)	28 (28)	66 (72)
Wyoming	4 (4)	54 (58)	57 (61)	24 (26)	55 (60)
Puerto Rico	27 (29)	38 (40)	55 (58)	‡ (‡)	54 (57)
ACS-American Cancer Society, U					· '

ACS-American Cancer Society, USPSTF-United States Preventive Services Task Force. *Age ≥45 years: Home-based blood stool test within the past year or sDNA in the past 3 years. †Age ≥45 years: Within the past 10 years. **Age ≥45 years: blood stool test, sigmoidoscopy, or colonoscopy within the past 1, 5, or 10 years, respectively. Stool testing, colonoscopy, and ACS estimates are age-adjusted to the year 2000 US standard population using three age groups: 45-49, 50-64, and ≥65 years. Uninsured estimates are age-adjusted using three age-groups: 45-49, 50-64, and 60-64 years. ¶ For ages 45-75: blood stool test within the past year OR blood stool test within the past 3 years with sigmoidoscopy within the past 5 years OR colonoscopy within the past 10 years. FOBT/FIT, sigmoidoscopy, colonoscopy, computed tomography (CT) colonography, OR sDNA test in the past 1, 5, 10, 5 and 3 years, respectively, OR sigmoidoscopy in past 10 years with FOBT/FIT in past 1 year. USPSTF estimates are age-adjusted using three age groups: 45-49, 50-64, and 65-75 years. ‡Estimates are statistically unstable and not shown. See Special Notes, Page 42. Estimates for 2022 are not comparable to prior years because of questionnaire changes.

Source: Behavioral Risk Factor Surveillance System, 2022.

Figure 6D. Trends in Colorectal Cancer Screening, Adults 50 Years and Older, by Race/Ethnicity, US, 2000-2021



Estimates are age-adjusted to the year 2000 US standard population using two age groups: 50-64 and 65+ years. The NHIS underwent a significant redesign in 2019 preventing comparability to prior years indicated by the line break. Colorectal cancer screening is defined as colonoscopy, sigmoidoscopy, or stool-testing in the past 10, 5, and 1 years; CT colonography in the past 5 years (2010, 2015, 2018); sDNA in the past 3 years (2018, 2019, 2021).

Sources: National Health Interview Survey, 2000-2021.

Table 6G. Prostate Specific Antigen Test, Males 50 Years and Older, US, 2021

	Within the Past Year
	Age adjusted %
	(Crude %)
Overall	35 (35)
Age (years)	
50-64	26 (26)
65+	46 (46)
Race/Ethnicity	
Hispanic	28 (26)
White only	38 (38)
Black only	31 (29)
Asian only	21 (21)
AIAN only or multiple	29 (27)
Sexual orientation	
Gay	40 (38)
Heterosexual	35 (35)
Bisexual	‡ (‡)
Immigration status	
Born in US/US Territory	37 (37)
In US fewer than 10 years	‡ (‡)
In US 10+ years	27 (26)
Education	
Less than high school	21 (21)
High school diploma	32 (31)
Some college	37 (36)
College graduate	41 (41)
Income level	
<100% FPL	22 (19)
100 to <200% FPL	24 (24)
≥200% FPL	39 (38)
Insurance status (≥18 years)	
Uninsured	‡ (10)
Private	40 (36)
Medicaid/Public/Dual eligible	21 (19)
Medicare (65 years and above)	44 (44)
Other (below 65 years)	28 (28)

ACS-American Cancer Society, USPSTF-United States Preventive Services Task Force. AIAN-American Indian/Alaska Native. FPL-federal poverty level. Respondents' sex was self-reported. Estimates are age-adjusted to the year 2000 US standard population using two age groups: 50-64 and ≥65 years. Prostate cancer screening is defined among males who have not been diagnosed with prostate cancer. ‡Estimates are statistically unstable and not shown. See Special Notes, Page 42.

Source: National Health Interview Survey, 2021.

Table 6H. Prostate Specific Antigen Test, Males 50 Years and Older, by State, US, 2020

	Within the Past Year
	Age adjusted % (Crude %)
United States (median)	32 (32)
Range	23-48 (23-48)
Alabama	37 (37)
Alaska	28 (27)
Arizona	30 (30)
Arkansas	35 (35)
California	28 (27)
Colorado	28 (27)
Connecticut	32 (32)
Delaware	31 (32)
District of Columbia	29 (28)
Florida	36 (37)
Georgia	35 (34)
Hawaii	27 (27)
Idaho	29 (29)
Illinois	30 (30)
Indiana	29 (28)
Iowa	29 (29)
Kansas	33 (33)
Kentucky	31 (31)
Louisiana	35 (35)
Maine	25 (25)
Maryland	33 (32)
Massachusetts	33 (32)
Michigan	34 (33)
Minnesota	25 (25)
Mississippi	35 (35)
Missouri	33 (33)
Montana	31 (31)
Nebraska	32 (32)
Nevada	27 (28)
New Hampshire	30 (29)
New Jersey	35 (34)
New Mexico	24 (25)
New York	34 (34)
North Carolina	39 (39)
North Dakota	31 (31)
Ohio	32 (32)
Oklahoma	31 (31)
Oregon	27 (27)
Pennsylvania	33 (33)
Rhode Island	32 (32)
South Carolina	33 (32)
South Dakota	39 (40)
Tennessee	32 (32)
Texas	28 (28)
Utah	29 (28)
Vermont	23 (23)
Virginia	35 (35)
Washington	24 (24)
West Virginia	35 (35)
Wisconsin	33 (33)
Wyoming	37 (36)
Puerto Rico	48 (48)
ACC American Cancer Cociety LICE	PSTE-United States Preventive Services

ACS-American Cancer Society, USPSTF-United States Preventive Services Task Force. FPL-federal poverty level. Respondents' sex was self-reported. Estimates are age-adjusted to the year 2000 US standard population using two age groups: 50-64 and ≥65 years. Prostate cancer screening is defined among males who have not been diagnosed with prostate cancer.

Source: Behavioral Risk Factor Surveillance System, 2020.

Table 6I. Lung Cancer Screening, Adults 50-79 Years, by State, US, 2022

	USPSTF*		ACS†		
	Eligibility¶	Screened¶	Eligibility¶	Screened¶	
	Overall	Overall	Overall	Overall	
	Crude %	Age adjusted % (Crude %)	Crude %	Age adjusted % (Crude %)	
United States (median)	13	17 (19)	19	14 (16)	
Range	7-21	9-29 (10-31)	10-28	7-23 (9-25)	
Alabama	15	22 (22)	19	18 (19)	
Alaska	13	15 (14)	19	12 (12)	
Arizona	12	15 (16)	19	13 (14)	
Arkansas	20	15 (17)	26	13 (15)	
California	8	15 (17)	12	11 (14)	
Colorado	10	12 (11)	14	10 (10)	
Connecticut	10	28 (27)	16	21 (21)	
Delaware	13	22 (24)	20	20 (21)	
District of Columbia	7	21 (25)	10	23 (25)	
Florida	14	17 (18)	21	15 (16)	
Georgia	12	14 (16)	16	11 (14)	
Hawaii	10	13 (15)	15	10 (13)	
Idaho	10	16 (16)	15	13 (13)	
Illinois	12	18 (19)	18	16 (17)	
Indiana	18	20 (19)	24	17 (17)	
Iowa	16	18 (18)	23	14 (15)	
Kansas	16	21 (21)	22	17 (18)	
Kentucky	20	21 (21)	28	18 (19)	
Louisiana	18	16 (17)	23	13 (14)	
Maine	15	23 (24)	22	19 (21)	
Maryland	8	18 (19)	12	15 (16)	
Massachusetts	11	24 (27)	16	19 (21)	
Michigan	15	19 (20)	22	16 (18)	
Minnesota	13	17 (18)	19	13 (14)	
Mississippi	18	15 (15)	22	15 (15)	
• • • • • • • • • • • • • • • • • • • •		` '			
Missouri	16	17 (19)	23	14 (16)	
Montana	13	13 (14)	19	11 (13)	
Nebraska	15	24 (24)	20	20 (20)	
Nevada	13	12 (14)	18	10 (12)	
New Hampshire	12	18 (19)	20	13 (15)	
New Jersey	9	23 (22)	14	18 (18)	
New Mexico	11	9 (11)	17	7 (9)	
New York	11	20 (22)	16	18 (19)	
North Carolina	14	17 (19)	22	15 (17)	
North Dakota	15	19 (21)	22	17 (18)	
Ohio	19	19 (19)	25	16 (17)	
Oklahoma	17	10 (10)	25	8 (9)	
Oregon	11	11 (12)	17	10 (11)	
Pennsylvania	16	19 (20)	21	14 (16)	
Rhode Island	13	29 (31)	21	22 (23)	
South Carolina	14	18 (19)	21	15 (16)	
South Dakota	14	18 (19)	18	15 (16)	
Tennessee	19	16 (15)	26	14 (14)	
Texas	11	12 (12)	16	10 (11)	
Utah	7	12 (13)	10	11 (12)	
Vermont	14	22 (24)	21	17 (18)	
Virginia	13	17 (19)	18	16 (18)	
Washington	10	15 (16)	16	11 (13)	
West Virginia	21	16 (15)	27	13 (14)	
Wisconsin	14	20 (21)	20	15 (17)	
Wyoming	17	10 (10)	24	9 (10)	
,					

ACS-American Cancer Society, USPSTF-United States Preventive Services Task Force. Estimates are age-adjusted using four age groups: 50-54, 55-59, 60-69, 70-79 years. *The USPSTF recommends annual screening for lung cancer with low-dose computed tomography (LDCT) in adults aged 50 to 80 years who have a 20 pack-year smoking history and currently smoke or have quit within the past 15 years. †The American Cancer Society recommends annual screening for lung cancer with a low-dose CT (LDCT) scan for people aged 50 to 80 years who smoke or used to smoke and have at least a 20 pack-year history of smoking. ¶Due to survey questionnaire limitations, estimates are among individuals ages 50-79 years instead of among ages 50-80 years. ‡Estimates are statistically unstable and not shown. See Special Notes, Page 42.

Source: Behavioral Risk Factor Surveillance System, 2022.

American Cancer Society Recommendations for the Early Detection of Cancer in Average-risk Asymptomatic People

Cancer Site	Population	Test or Procedure	Recommendation
Breast	Women, ages 45-54	Mammography	Women should have the opportunity to begin annual screening between the ages of 40 and 44. Women should undergo regular screening starting at age 45. Women ages 45 to 54 should be screened annually.
	Women, ages 55+	Mammography	Transition to biennial screening, or have the opportunity to continue annual screening. Continue screening as long as overall health is good and life expectancy is 10+ years.
Cervix	Women, ages 25-65.	Primary HPV test (preferred), Pap test alone or co-testing (acceptable)	Preferred: Primary HPV test alone every 5 years with an FDA- approved test for primary HPV screening. Acceptable: Co-testing (HPV test and Pap test) every 5 years or Pap test alone every 3 years.
	Women, ages >65		Discontinue screening if results from regular screening in the past 10 years were negative, with the most recent test within the past 5 years.
	Women who have been vaccinated against HPV		Follow age-specific screening recommendations (same as unvaccinated individuals).
	Women who have had a total hysterectomy		Stop cervical cancer screening.
Colorectal	Men and women, ages 45+	Guaiac-based fecal occult blood test (gFOBT) with at least 50% sensitivity or fecal immunochemical test (FIT) with at least 50% sensitivity, OR	Annual testing of spontaneously passed stool specimens. Single stool testing during a clinician office visit is not recommended, nor are "throw in the toilet bowl" tests. In comparison with guaiac-based tests for the detection of occult blood, immunochemical tests are more patient-friendly and are likely to be equal or better in sensitivity and specificity. There is no justification for repeating gFOBT in response to an initial positive finding.
		Multi-target stool DNA test, OR	Every 3 years
		Flexible sigmoidoscopy (FSIG), OR	Every 5 years alone, or consideration can be given to combining FSIG performed every 5 years with a highly sensitive gFOBT or FIT performed annually
		Colonoscopy, OR	Every 10 years
		CT Colonography	Every 5 years
Endometrial	Women at menopause		Women should be informed about risks and symptoms of endometrial cancer and encouraged to report unexpected bleeding to a physician.
Lung	Individuals ages 50 to 80 years who currently smoke, or formerly smoked and have a 20 or greater pack-year history of cigarette smoking, are in reasonably good health with at least 5 years of expected longevity	Low-dose helical CT (LDCT)	Annually
Prostate	Men, ages 50+. African American men should have this conversation with their provider beginning at age 45.	with or without digital rectal examination	Men who have at least a 10-year life expectancy should have an opportunity to make an informed decision with their health care provider about whether to be screened for prostate cancer, after receiving information about the potential benefits, risks, and uncertainties associated with prostate cancer screening. Prostate cancer screening should not occur without an informed decision-making process.

Special Notes

Glossary

Body Mass Index (ages 2-20 years): After a BMI value is calculated for a child based on their weight and height, the BMI value is plotted on the Centers for Disease Control and Prevention's (CDC) BMI for age- and sex-specific growth charts to obtain a percentile ranking. The percentile indicates the relative position of the child's BMI value among children of the same sex and age. Visit cdc.gov/healthyweight/assessing/bmi/childrens_bmi/about_childrens_bmi.html for more information regarding youth BMI.

Insurance Status: Private coverage: adults who had any comprehensive private insurance plan. Medicaid/Public/Dual: adults aged <65 years; includes those who did not have private coverage but had Medicaid or other public insurance. For adults aged ≥65 years, those who did not have any private coverage but had Medicare and Medicaid or other public insurance. Medicare: adults aged ≥65 years who only had Medicare or had Medicare advantage coverage. Other coverage: adults who did not have private insurance, Medicaid, or other public coverages, but had coverage (adults aged <65 years). Uninsured: adults who did not indicate at the time of interview that they were insured.

Sample surveys: Population-based surveys are conducted by selecting a sample of people to estimate the prevalence in a population using survey weights to represent the total population. The population-based survey methodology introduces sampling error to the estimated prevalence since a true prevalence is not calculated.

Data quality: The sources of data used for this report are from government-sponsored national and state systems of behavioral and health surveillance. These systems employ standardized techniques for sampling and use the latest advances in survey research methodology to survey targeted population groups on an ongoing basis. The design and administration of these surveillance systems can provide sources of good-quality data from which to derive population estimates of specific behaviors in a targeted population. The data included in this report are subject to at least four limitations. First, with regards to phone-based surveys such as the Behavioral Risk Factor Surveillance System, the participants are from households with either a landline telephone or cell phone. Second, both in-person and phone surveys have varying proportions of individuals who do not participate for a variety of reasons (e.g., could not be reached during the time of data collection or refused to participate). Third, most estimates presented herein are based on self-reported data, which may be subject to bias. Finally, estimates for the same measure from different surveys may differ, even for overlapping survey years, due to differences in survey methodology (mode of administration, sampling), questionnaires, nature of survey (general health survey versus topic-specific survey), etc.

Suppression criteria: Survey estimates were considered unstable and not shown if the relative standard error was ≥30% or the denominator sample size was <50.

Prevalence (%): Proportion of a population who have a specific characteristic in a given time period. In this document, prevalence is expressed as a percentage (%).

Age-adjusted %: A statistical method used to adjust prevalence estimates to allow for valid comparisons between populations with different age compositions. Prevalence estimates for adults presented herein are age adjusted to the year 2000 US standard population. https://seer.cancer.gov/stdpopulations/

Crude %: Prevalence estimates that are not age-adjusted.

Range: The lowest and highest values of a group of prevalence estimates.

Median: Middle value in a range of prevalence estimates. Estimates are arranged from smallest to largest values; the median is the middle value.

©2024, American Cancer Society, Inc., Surveillance and Health Equity Science

Survey Sources

Behavioral Risk Factor Surveillance System (BRFSS): This survey of US states and territories is conducted by the CDC and the National Center for Chronic Disease Prevention and Health Promotion. Since 1996, all 50 states, the District of Columbia, and Puerto Rico have participated in this annual survey. Beginning in 2001, Guam and the Virgin Islands were also included in most years of data. Data are gathered through monthly computer-assisted telephone interviews with adults ages 18 years and older living in households in a state or US territory. The methods are generally comparable from state to state. Due to methodological changes, BRFSS results within this publication are not directly comparable to BRFSS data prior to 2011. BRFSS continued telephone-based interviews during the COVID-19 pandemic in 2020, although some states paused interviews during pandemic-related shutdowns. E-cigarette prevalence in 2021-on are not comparable to prior years when respondents were asked about both ever (lifetime) use and current use (some days or every day). Screening estimates do not distinguish between examinations for screening and diagnosis.

BRFSS website: cdc.gov/brfss/

Complete citation: Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2000-2022.

National Health and Nutrition Examination Survey (NHANES): Three cycles of this US national survey were conducted between 1971 and 1994. Beginning in 1999, the NHANES survey was implemented as a continuous annual survey. Data are gathered through in-person interviews and direct physical exams in mobile examination centers. Due to the COVID-19 pandemic, the 2019-2020 survey suspended data collection in March 2020, before the full two-year data collection was completed. As a result, the National Center for Health Statistics merged the 2019-March 2020 NHANES data with the 2017-2018 NHANES data to create a special pre-pandemic data set. Estimates for Hispanic adults exclude Mexican Americans.

NHANES website: cdc.gov/nchs/nhanes.htm

Complete citation: National Center for Health Statistics. National Health and Nutrition Examination Survey, 2017-March 2020. Public-use data file and documentation. cdc.gov/nchs/nhanes/Default.aspx.

National Health Interview Survey (NHIS): The CDC's NHIS has monitored the health of the nation since 1957 and is designed to provide national estimates. Data are gathered through a computer-assisted personal interview of adults ages 18 years and older living in households in the US. The NHIS underwent a significant redesign in 2019, and estimates for certain measures are not strictly comparable to prior years.

For NHIS data represented herein, estimates for White, Black, American Indian/Alaska Native, and Asian persons are among non-Hispanics unless otherwise noted. The Asian group does not include Native Hawaiians or other Pacific Islanders. Estimates for people born in US territories include those who have been in the US for any length of time. Screening estimates do not distinguish between examinations for screening and diagnosis. Due to changes in NHIS survey design, 2019 estimates are not directly comparable to prior years and are separated from the trend line. Estimates for 2020-on are separated from the trend line to indicate a break in the NHIS survey data collection mode after the onset of the COVID-19 pandemic, where interviews changed to telephone-based modes in the second quarter of 2020 through April 2021 versus in-person modes in prior years and the first quarter of 2020. In May 2021, interviewers were directed to return to in-person interviews with some flexibility to conduct follow-up through telephone interviews. Readers are referred to the NHIS website for further information on potential biases due to COVID-19 related data collection changes.

NHIS website: cdc.gov/nchs/nhis/index.htm

Complete citation: National Center for Health Statistics. National Health Interview Surveys, 2000-2022. Publicuse data files and documentation. cdc.gov/nchs/nhis/index.htm

National Immunization Survey-Teen (NIS-Teen): This survey is sponsored and conducted by the National Center for Immunizations and Respiratory Diseases, the National Center for Health Statistics, and the CDC. It is designed to monitor national, state, and selected local area vaccination coverage among children ages 13-17 years in the US. Telephone (landline and cellular) interviews of adolescents' parents/guardians are conducted in all 50 states and the District of Columbia. Immunization data for surveyed adolescents are also collected through a mail survey of their pediatricians, family physicians, and other health care providers. Race/ethnicity is reported by a parent or guardian. Estimates for White, Black, American Indian/Alaska Native, and Asian persons are among non-Hispanics. Those identified as Hispanic might be of any race. Native Hawaiian or other Pacific Islanders and persons of multiple races were not included due to small sample sizes. Adolescents were classified as below the poverty level if their total family income was less than the federal poverty level. Methods for calculating HPV initiation before 13 years of age are described here: Fedewa et al, *Cancer* 2018. https://acsjournals.onlinelibrary.wiley.com/doi/10.1002/cncr.31763

NIS-Teen website: cdc.gov/vaccines/imz-managers/nis/about.html

National Youth Tobacco Survey (NYTS): This national survey was first conducted in the fall of 1999. Beginning in 2011, the CDC's Office on Smoking and Health and the US Food and Drug Administration's Center for Tobacco Products began collaborating on the NYTS. Now an annual survey, it is designed to provide national data for public and private students in grades 6-12. In 2020 and prior years, data were gathered through a self-administered questionnaire completed during a required subject or class period. Post COVID-19 pandemic, the 2021 survey was administered online to allow participation by eligible students at home, school, or somewhere else, and the 2022-2023 NYTS surveys were conducted using an online survey, with nearly all (99.3%) students in 2022 completing it on a school campus. Because of survey mode change, NYTS for 2021 and later cannot be compared with previous NYTS survey results.

NYTS website: cdc.gov/TOBACCO/data statistics/surveys/NYTS/

Youth Risk Behavior Surveillance System (YRBSS): This biennial survey of the CDC's National Center for Chronic Disease Prevention and Health Promotion began in 1991. It is designed to provide national, state, and local prevalence estimates. Data are gathered through a self-administered questionnaire completed during a required subject or class period. The state and local surveys are of variable data quality, and caution should be used when comparing data among them. Data from states and local areas with an overall response rate of 60% and appropriate documentation are considered weighted and are generalized to all public and private high school students in grades 9-12 in the respective jurisdiction. Data that do not meet the weighting requirements are not publicly available and are not presented within this publication. These surveys are conducted every two years, usually during the spring semester. However, due to the COVID-19 pandemic, the 2021 national YRBSS and most state, territorial, tribal government, and local surveys were conducted in the fall semester. Additionally, participation in YRBSS is a voluntary collaboration between a state's departments of health and education; not all states participate in each YRBSS survey.

YRBSS website: cdc.gov/HealthyYouth/yrbs/index.htm; nccd.cdc.gov/Youthonline/App/Default.aspx

References

- 1. Islami F, Goding Sauer A, Miller KD, Siegel RL, Fedewa SA, Jacobs EJ, McCullough ML, Patel AV, Ma J, Soerjomataram I, Flanders WD, Brawley OW, Gapstur SM, Jemal A. Proportion and number of cancer cases and deaths attributable to potentially modifiable risk factors in the United States. CA Cancer J Clin. 2018 Jan;68(1):31-54. Epub 2017 Nov 21. PMID: 29160902.
- 2. National Center for Health Statistics. Health, United States, 2018: Table 19. Hyattsville, MD. 2019. Available from: https://www.cdc.gov/nchs/hus/data-finder.htm.
- 3. Birdsey J, Cornelius M, Jamal A, et al. Tobacco Product Use Among U.S. Middle and High School Students National Youth Tobacco Survey, 2023. MMWR Morb Mortal Wkly Rep. 2023;72(44):1173-1182. Published 2023 Nov 3.
- 4. Park-Lee E, Ren C, Cooper M, Cornelius M, Jamal A, Cullen KA. Tobacco Product Use Among Middle and High School Students United States, 2022. MMWR Morb Mortal Wkly Rep. 2022;71(45):1429-1435. Published 2022 Nov 11.
- 5. Gentzke AS, Wang TW, Cornelius M, et al. Tobacco Product Use and Associated Factors Among Middle and High School Students National Youth Tobacco Survey, United States, 2021. MMWR Surveill Summ. 2022;71(5):1-29. Published 2022 Mar 11.
- 6. Gentzke AS, Wang TW, Jamal A, et al. Tobacco Product Use Among Middle and High School Students United States, 2020. MMWR Morb Mortal Wkly Rep 2020;69:1881–1888.
- 7. Wang TW, Gentzke AS, Creamer MR, et al. Tobacco Product Use and Associated Factors Among Middle and High School Students United States, 2019. MMWR Surveill Summ. 2019;68(12):1-22. Published 2019 Nov 6.
- 8. Gentzke AS, Creamer M, Cullen KA, et al. Vital Signs: Tobacco Product Use Among Middle and High School Students United States, 2011-2018. MMWR Morb Mortal Wkly Rep. 2019;68(6):157-164. Published 2019 Feb 15.
- 9. Wang TW, Gentzke A, Sharapova S, Cullen KA, Ambrose BK, Jamal A. Tobacco Product Use Among Middle and High School Students United States, 2011–2017. MMWR Morb Mortal Wkly Rep 2018;67:629–633.
- 10. Jamal A, Gentzke A, Hu SS, et al. Tobacco Use Among Middle and High School Students United States, 2011–2016. MMWR Morb Mortal Wkly Rep 2017;66:597–603.
- 11. Singh T, Arrazola RA, Corey CG, et al. Tobacco Use Among Middle and High School Students United States, 2011–2015. MMWR Morb Mortal Wkly Rep 2016;65:361–367.
- 12. Arrazola RA, Singh T, Corey CG, et al. Tobacco use among middle and high school students United States, 2011-2014. MMWR Morb Mortal Wkly Rep. 2015;64(14):381-385.
- 13. Arrazola RA, Neff LJ, Kennedy SM, Holder-Hayes E, Jones CD; Centers for Disease Control and Prevention (CDC). Tobacco use among middle and high school students--United States, 2013 [published correction appears in MMWR Morb Mortal Wkly Rep. 2015 Aug 28;64(33):924]. MMWR Morb Mortal Wkly Rep. 2014;63(45):1021-1026.
- 14. Centers for Disease Control and Prevention (CDC). Tobacco product use among middle and high school students-United States, 2011 and 2012 [published correction appears in MMWR Morb Mortal Wkly Rep. 2013 Nov 22;62(46):940]. MMWR Morb Mortal Wkly Rep. 2013;62(45):893-897.
- 15. American Cancer Society Cancer Action Network. Tobacco Excise Tax Increases: Saves Lives. Reduces Health Care Costs. Generate Revenue. Available from URL:

https://www.fightcancer.org/sites/default/files/general tobacco tax fact sheet final 9.5.2023.pdf (fightcancer.org).

- 16. American Nonsmokers' Rights Foundation. Overview List Number of Smokefree and Other Tobacco-Related Laws. Available from URL: https://no-smoke.org/wp-content/uploads/pdf/mediaordlist.pdf [accessed April 17, 2024]
- 17. American Nonsmokers' Rights Foundation. States and Municipalities with Laws Regulating Use of Electronic Smoking Devices. Available from URL: https://no-smoke.org/wp-content/uploads/pdf/ecigslaws.pdf [accessed April 17, 2024].
- 18. Campaign for Tobacco-Free Kids. A State-by-State Look at the 1998 Tobacco Settlement 25 Years Later. Available from URL: https://www.tobaccofreekids.org/what-we-do/us/statereport [accessed April 26, 2024].
- 19. Islami F, Marlow EC, Zhao J, Wiese D, Asare S, Bandi P, Thomson B, Zheng Z, Nargis N, Yabroff KR, Jemal A. Person-years of life lost and lost earnings from cigarette smoking-attributable cancer deaths, United States, 2019. Int J Cancer. 2022 Dec 15;151(12):2095-2106. Epub 2022 Aug 10. PMID: 35946832. American Cancer Society Cancer Action Network, 2023.
- 20. National Center for Health Statistics. Health, United States, 2013: Table 69. Hyattsville, MD. 2019. Available from: https://www.cdc.gov/nchs/data/hus/hus13_inbrief.pdf.
- 21. National Center for Health Statistics. Health, United States, 2019: Table 27. Hyattsville, MD. 2021. Available from: https://www.cdc.gov/nchs/hus/data-finder.htm.
- 22. Indoor Tanning Legislation 2023, AIM at Melanoma Foundation, https://www.aimatmelanoma.org/legislation-policy-advocacy/indoor-tanning/#1611080938111-5aa64f94-69b8.
- 23. Centers for Disease Control and Prevention, National Center for Immunization and Respiratory Diseases. TeenVaxView. Available from URL: https://www.cdc.gov/vaccines/imz-managers/coverage/teenvaxview/data-reports/index.html [accessed September 4, 2022].
- 24. Rosenblum HG, Lewis RM, Gargano JW, Querec TD, Unger ER, Markowitz LE. Declines in Prevalence of Human Papillomavirus Vaccine-Type Infection Among Females after Introduction of Vaccine United States, 2003-2018. MMWR Morb Mortal Wkly Rep. 2021 Mar 26;70(12):415-420. Erratum in: MMWR Morb Mortal Wkly Rep. 2021 Apr 02;70(13):502. PMID: 33764964; PMCID: PMC7993559.
- 25. 2019 Air Toxic Screening Assessment, US EPA, https://www.epa.gov/AirToxScreen/2019-airtoxscreen.

Acknowledgements

The production of these tables and figures would not have been possible without the efforts of:

Kilan Ashad-Bishop, PhD; Steve Bouvier; Deanna Henkle; Ahmedin Jemal, DVM, PhD; Myisha King, MA; Tyler Kratzer, MPH; Sandy McDowell, MA; Catherine McMahon, MPH; Adair Minihan, MPH; Amanda Schneider, MS; Rebecca Siegel, MPH; Lynn Urquhart.

Cancer Prevention & Early Detection Facts & Figures is a biannual publication of the American Cancer Society, Atlanta, Georgia. Updated tables and figures are available online at cancer.org/research/cancer-facts-statistics.html for years in which a complete edition is not produced.

For more information, contact: Priti Bandi, PhD; Jessica Star, MA, MPH Surveillance and Health Equity Science Department

The mission of the American Cancer Society is to improve the lives of people with cancer and their families through advocacy, research, and patient support, to ensure everyone has an opportunity to prevent, detect, treat, and survive cancer.