

The NSDUH Report

August 7, 2014

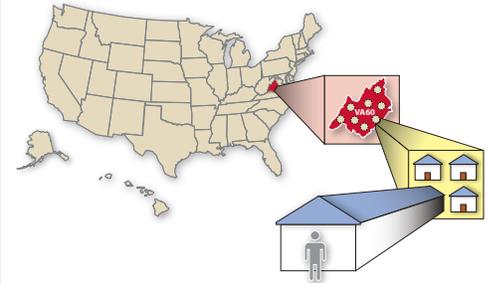
Trends in Smokeless Tobacco Use and Initiation: 2002 to 2012

Smokeless tobacco products may be chewed, placed in the oral cavity outside the gums, or inhaled or snorted through the nose rather than smoked. Many people who use smokeless tobacco may think it is safer than smoking, but all tobacco products contain toxicants, and use of smokeless tobacco poses its own significant health risks. People who use smokeless tobacco products have an increased risk of oral cavity, esophageal, and pancreatic cancers.¹ Although all tobacco use is addictive, the amount of nicotine absorbed from smokeless tobacco is 3 to 4 times greater than that delivered by a cigarette.² In addition, nicotine stays in the blood longer for smokeless tobacco users than for smokers.² Monitoring trends in smokeless tobacco and the shifting demographics of users can help to further refine prevention efforts.

The National Survey on Drug Use and Health (NSDUH) asks persons aged 12 or older about their substance use in the past 30 days, including their use of tobacco products (e.g., cigarettes, cigars, pipe tobacco, chewing tobacco, and snuff). For this report, data for chewing tobacco and snuff are combined and termed “smokeless tobacco.” Respondents who used these substances are asked how old they were when they first used them; responses to these questions were used to identify persons at risk for initiation (i.e., persons who had never used the substance as of 12 months prior to the interview date) and to identify past year initiates (i.e., persons who used the substance for the first time in the 12 months prior to the survey). This issue of *The NSDUH Report* examines smokeless tobacco use and initiation among persons aged 12 or older in 2012, as well as trends between 2002 and 2012.

Smokeless Tobacco Use

In 2012, 3.5 percent of persons aged 12 or older (an estimated 9.0 million persons) used smokeless tobacco in the past month. Males were more likely than females to have used smokeless tobacco in the past month. In 2012, 6.7 percent of males compared with 0.4 percent of females used smokeless tobacco in the past month (8.5 million



IN BRIEF

In 2012, 3.5 percent of persons aged 12 or older (an estimated 9.0 million persons) used smokeless tobacco in the past month. Rates of past month smokeless tobacco use remained relatively stable between 2002 and 2012.

The generally stable trend in past month smokeless tobacco use was consistent among adolescents and adults aged 26 or older. The 2012 rate of past month smokeless tobacco use among young adults aged 18 to 25 was higher than the rates in 2002 through 2004 but lower than the rate in 2010.

In 2012, an estimated 1.0 million persons aged 12 or older used smokeless tobacco for the first time; this represents 0.5 percent of persons who had not previously used smokeless tobacco.

Rates of past year initiation of smokeless tobacco use among persons who had not previously used smokeless tobacco was lower in 2012 than in the years between 2005 and 2011 but matched the levels between 2002 and 2004.

vs. 540,000) (Figure 1). Young adults aged 18 to 25 were more likely to have used smokeless tobacco in the past month than were adolescents aged 12 to 17 or adults aged 26 or older (5.5 vs. 2.1 and 3.3 percent, respectively). These percentages translate to 515,000 persons aged 12 to 17, 1.9 million persons aged 18 to 25, and 6.6 million persons aged 26 or older being current smokeless tobacco users.

Rates of past month smokeless tobacco use among persons aged 12 or older remained relatively stable between 2002 and 2012 (Figure 2). Among females, rates of past month smokeless tobacco use have remained stable since 2002, and among males, the trend has been fairly stable with only the 2004 and 2005 rates differing from the 2012 rate. In every year between 2002 and 2012, males were more likely than females to have used smokeless tobacco.

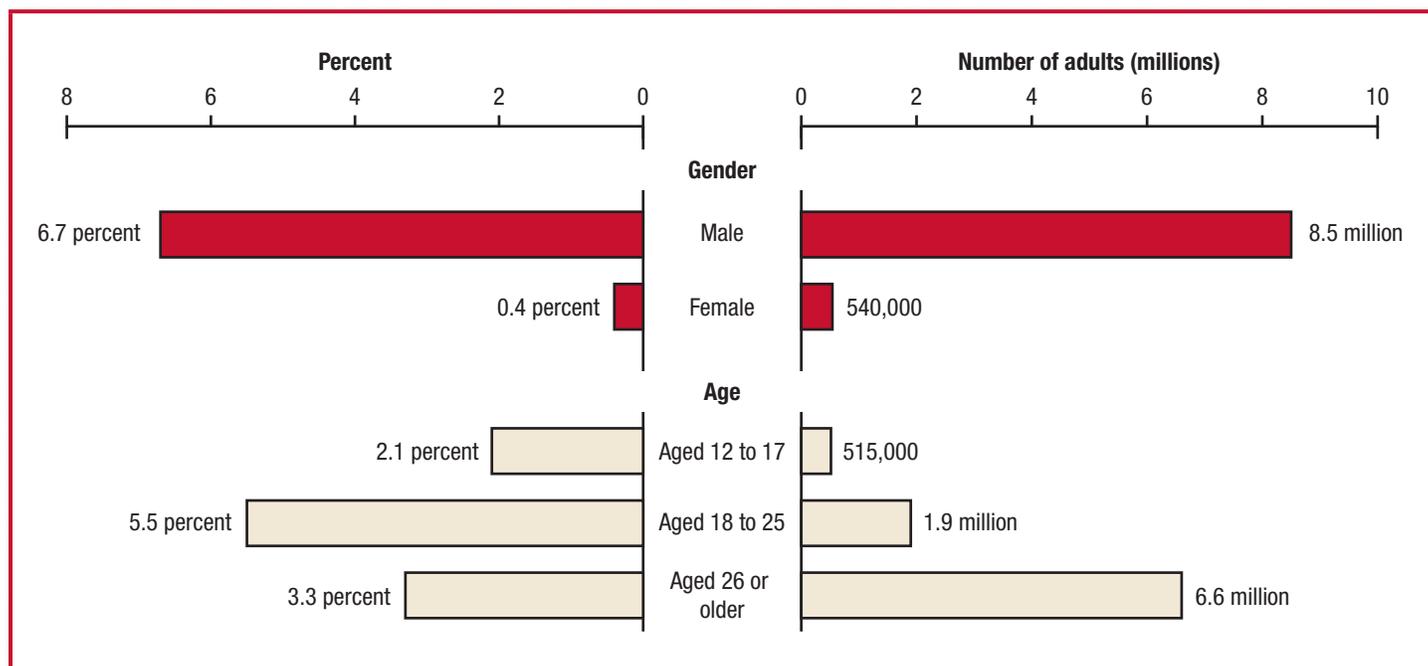
The generally stable trend in past month smokeless tobacco use also was consistent among adolescents and adults aged 26 or older (Figure 3). Between 2002 and 2012, rates among adolescents aged 12 to 17 were in the 2.0 to 2.5 percent range, and rates among adults aged 26 or older

were in the 2.7 to 3.3 percent range. Some variation was, however, seen among young adults. The 2012 rate of past month smokeless tobacco use among young adults aged 18 to 25 was higher than the rates in 2002 through 2004 but lower than the rate in 2010. In every year between 2002 and 2012, young adults aged 18 to 25 were more likely to have used smokeless tobacco than adolescents aged 12 to 17 or adults aged 26 or older.

Initiation of Smokeless Tobacco Use

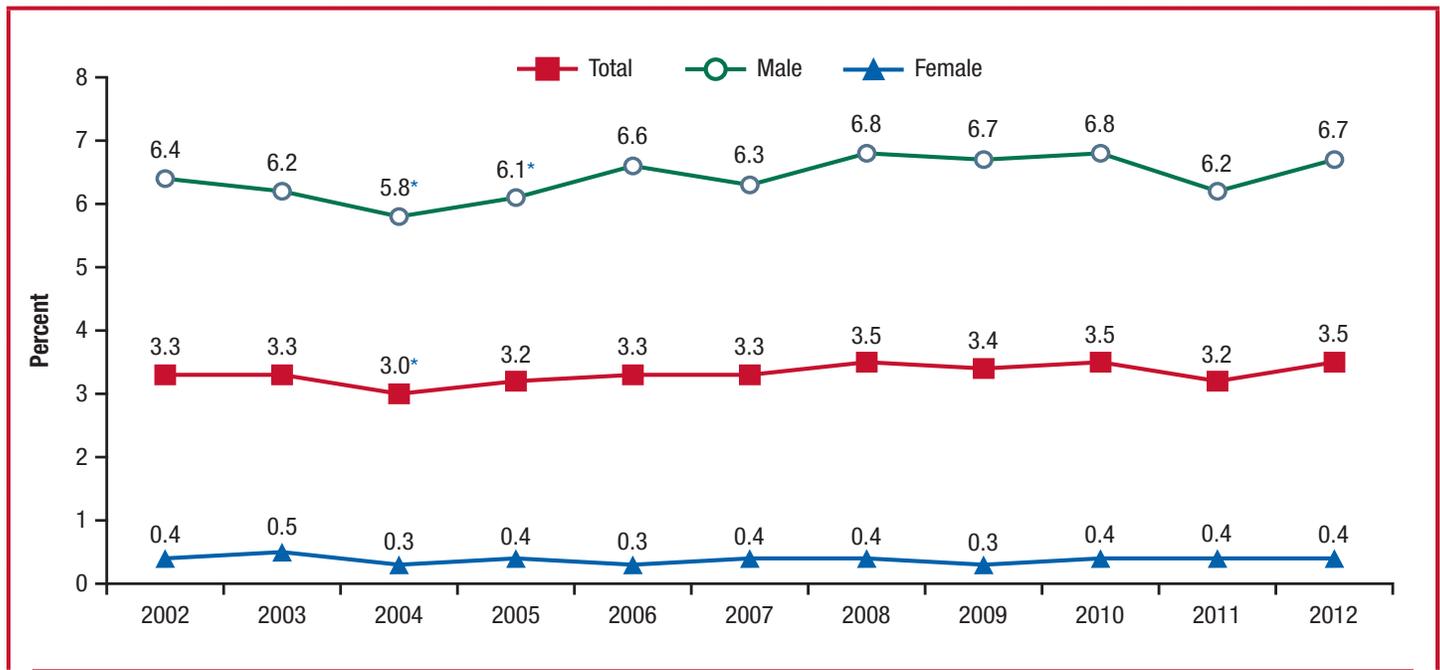
In 2012, an estimated 1.0 million persons aged 12 or older used smokeless tobacco for the first time (i.e., past year initiates); this represents 0.5 percent of persons who had not previously used smokeless tobacco (i.e., those at risk for initiation). The number of past year initiates and the percentage of persons using for the first time among those at risk for initiation were generally higher among males than females, and among adolescents and young adults than among adults aged 26 or older (Figure 4). In 2012, 739,000 males and 258,000 females used smokeless tobacco for the first time. These numbers represent

FIGURE 1. Past month smokeless tobacco use among persons aged 12 or older, by gender and age group: 2012



Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2012.

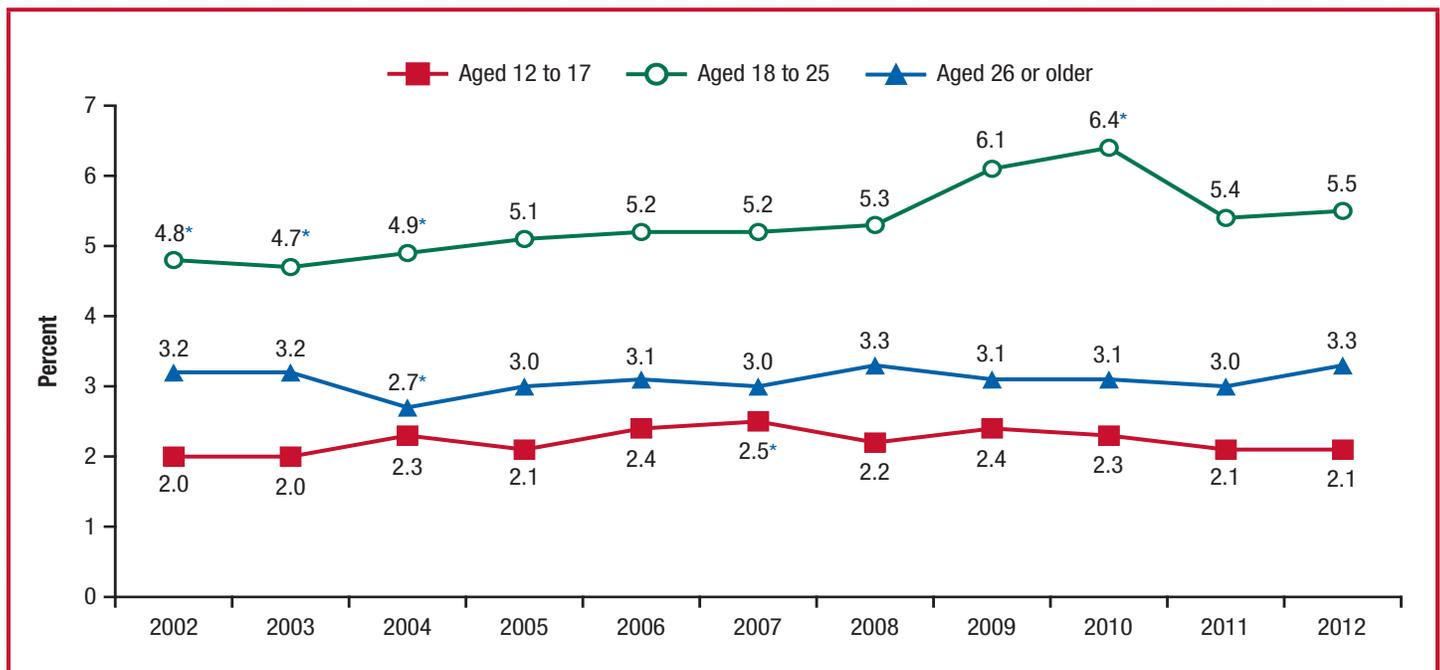
FIGURE 2. Past month smokeless tobacco use among persons aged 12 or older, by gender: 2002 to 2012



* Difference between this estimate and the 2012 estimate is statistically significant at the .05 level.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2002 to 2005, 2006 to 2010 (revised March 2012), and 2011 to 2012.

FIGURE 3. Past month smokeless tobacco use among persons aged 12 or older, by age group: 2002 to 2012



* Difference between this estimate and the 2012 estimate is statistically significant at the .05 level.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2002 to 2005, 2006 to 2010 (revised March 2012), and 2011 to 2012.

0.8 and 0.2 percent of males and females at risk for initiation, respectively. An estimated 415,000 persons aged 12 to 17, 496,000 persons aged 18 to 25, and 85,000 persons aged 26 or older used smokeless tobacco for the first time. These numbers represent 1.7 percent of adolescents, 1.8 percent of young adults, and 0.1 percent of adults aged 26 or older at risk of initiation.

Rates of past year initiation of smokeless tobacco use among persons at risk for initiation were lower in 2012 than in the years between 2005 and 2011 but matched the levels between 2002 and 2004 (Figure 5). Similar trends were seen among males, adolescents aged 12 to 17, and young adults aged 18 to 25 who were at risk for initiation (Figures 5 and 6).

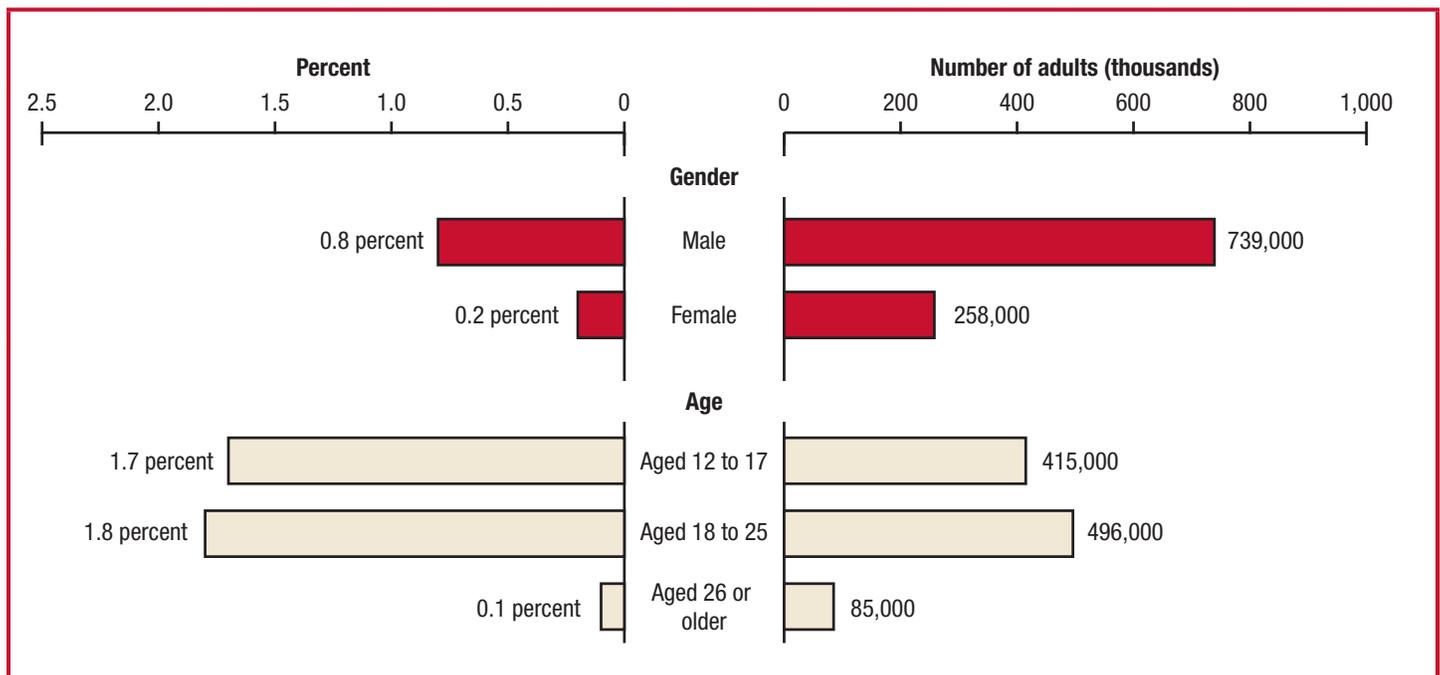
In every year between 2002 and 2012, the rate of recent initiation of smokeless tobacco use among those at risk for initiation was higher among males than females. Among those at risk of initiation, adolescents and young adults were more likely than adults aged 26 or older to have used smokeless tobacco for the first time in every year between 2002 and 2012.

Discussion

Smokeless tobacco is not a healthy alternative to cigarette smoking. Although national, state, and local smoking cessation campaigns have resulted in a significant reduction in the number of Americans who smoke, the overall use of smokeless tobacco has remained mostly unchanged since 2002. On the positive side, however, declines in initiation of smokeless tobacco between 2006 and 2012 among males, adolescents, and young adults suggest that prevention messages may be having an effect. Taken together, the findings in this report suggest a continuing need for prevention messages and tobacco cessation programs that specifically address the inherent risk of smokeless tobacco use.

Quitting smokeless tobacco use is as challenging as smoking cessation. For more information and resources on tobacco cessation, please visit <http://www.integration.samhsa.gov/health-wellness/wellness-strategies/tobacco-cessation-2>.

FIGURE 4. Past year initiation of smokeless tobacco use among persons aged 12 or older at risk for initiation, by gender and age group: 2012



Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2012.

FIGURE 5. Past year initiation of smokeless tobacco use among persons aged 12 or older at risk for initiation, by gender: 2002 to 2012

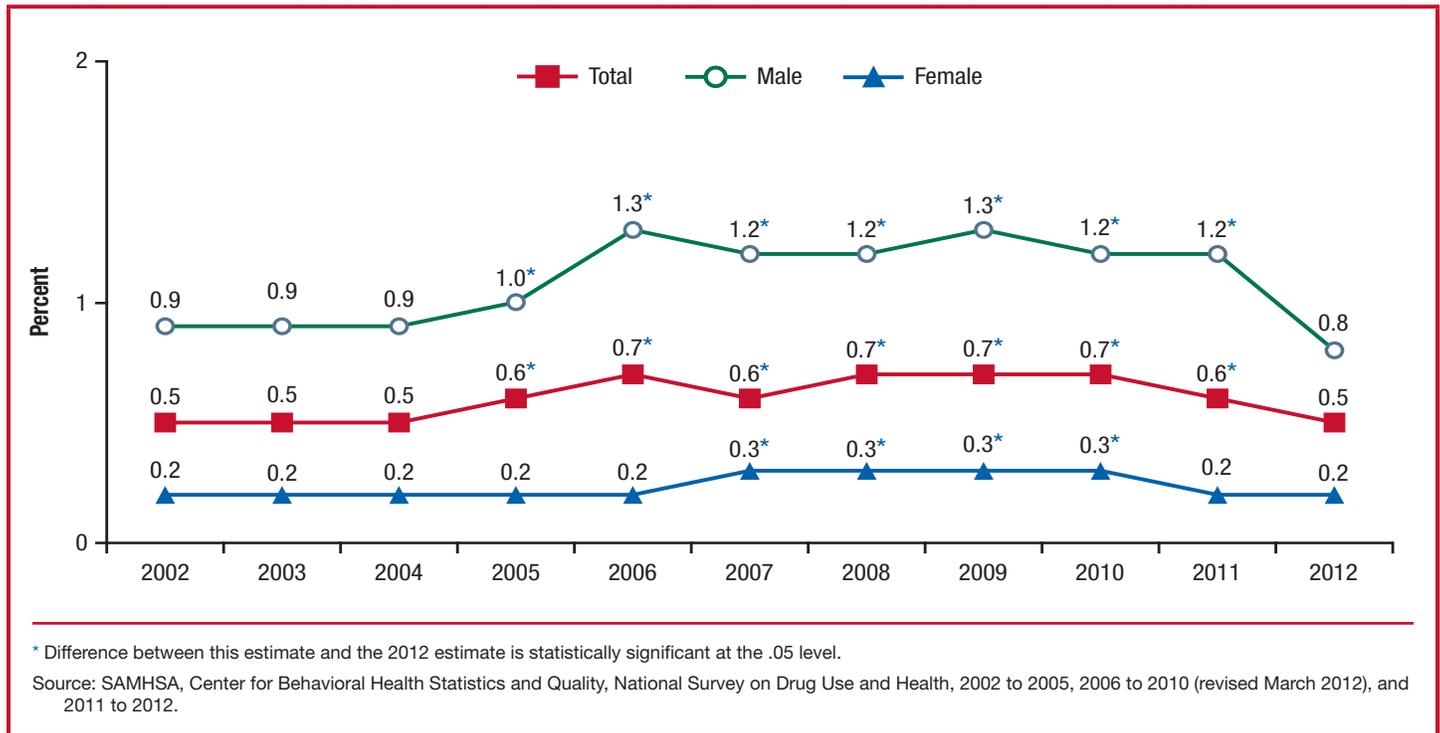
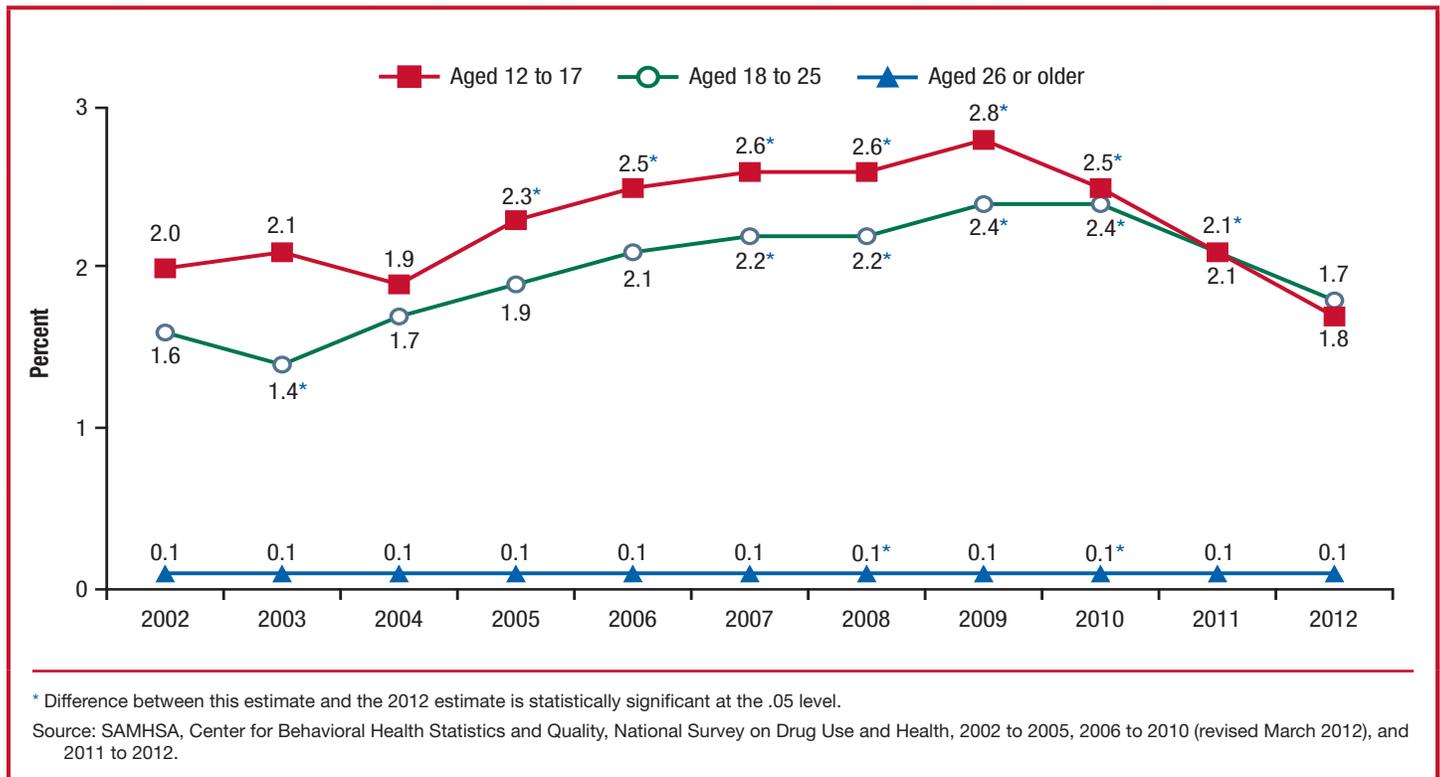


FIGURE 6. Past year initiation of smokeless tobacco use among persons aged 12 or older at risk for initiation, by age group: 2002 to 2012



End Notes

1. Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. (2014). *The health consequences of smoking—50 years of progress: A report of the Surgeon General*. Retrieved from <http://www.surgeongeneral.gov/library/reports/50-years-of-progress/full-report.pdf>
2. National Institutes of Health, National Institute on Drug Abuse. (2009). *Smokeless tobacco* (Topics in Brief). Retrieved from <http://www.drugabuse.gov/publications/topics-in-brief/smokeless-tobacco>

Suggested Citation

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The Substance Abuse and Mental Health Services Administration (SAMHSA) is the agency within the U.S. Department of Health and Human Services that leads public health efforts to advance the behavioral health of the nation. SAMHSA's mission is to reduce the impact of substance abuse and mental illness on America's communities.

The National Survey on Drug Use and Health (NSDUH) is an annual survey sponsored by SAMHSA. The 2012 data used in this report are based on information obtained from 68,300 adults aged 12 or older. The survey collects data by administering questionnaires to a representative sample of the population through face-to-face interviews at their place of residence.

The NSDUH Report is prepared by the Center for Behavioral Health Statistics and Quality (CBHSQ), SAMHSA, and by RTI International in Research Triangle Park, North Carolina. (RTI International is a trade name of Research Triangle Institute.)

Information on the most recent NSDUH is available in the following publication:

Center for Behavioral Health Statistics and Quality. (2013). *Results from the 2012 National Survey on Drug Use and Health: Summary of national findings* (HHS Publication No. SMA 13-4795, NSDUH Series H-46). Rockville MD: Substance Abuse and Mental Health Services Administration.

Also available online: <http://www.samhsa.gov/data/>.



U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES
Substance Abuse & Mental Health Services Administration
Center for Behavioral Health Statistics and Quality
www.samhsa.gov/data

Supporting Tables

TABLE S1A. Percentages of persons aged 12 or older with smokeless tobacco use in the past month, by age group and gender: 2002 to 2012 (supports Figures 1, 2, and 3)

Age group/gender	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total	3.3	3.3	3.0*	3.2	3.3	3.3	3.5	3.4	3.5	3.2	3.5
Male	6.4	6.2	5.8*	6.1*	6.6	6.3	6.8	6.7	6.8	6.2	6.7
Female	0.4	0.5	0.3	0.4	0.3	0.4	0.4	0.3	0.4	0.4	0.4
Aged 12 to 17	2.0	2.0	2.3	2.1	2.4	2.5*	2.2	2.4	2.3	2.1	2.1
Male	3.4	3.7	4.0	3.7	4.2	4.4*	3.9	4.2	4.0	3.6	3.7
Female	0.4	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.6*	0.5	0.4
Aged 18 to 25	4.8*	4.7*	4.9*	5.1	5.2	5.2	5.3	6.1	6.4*	5.4	5.5
Male	9.4*	8.9*	9.5	9.7	10.0	9.9	10.2	11.4	11.9*	10.3	10.5
Female	0.3*	0.4	0.4	0.5	0.4	0.5	0.5	0.8	0.7	0.6	0.5
Aged 26 or older	3.2	3.2	2.7*	3.0	3.1	3.0	3.3	3.1	3.1	3.0	3.3
Male	6.3	6.0	5.3*	5.8	6.3	5.9	6.6	6.2	6.2	5.8	6.5
Female	0.5	0.6	0.3	0.4	0.3	0.3	0.3	0.2	0.3	0.4	0.4

* Difference between estimate and 2012 estimate is statistically significant at the .05 level.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2002 to 2005, 2006 to 2010 (revised March 2012), and 2011 to 2012.

TABLE S1B. Numbers in thousands of persons aged 12 or older with smokeless tobacco use in the past month, by age group and gender: 2002 to 2012 (supports Figure 1)

Age group/gender	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total	7,787*	7,725*	7,154*	7,682*	8,226*	8,059*	8,706	8,615	8,879	8,243	9,036
Male	7,242*	7,096*	6,730*	7,174*	7,838	7,598*	8,248	8,203	8,367	7,676*	8,496
Female	545	628	424	508	388	461	458	412	511	568	540
Aged 12 to 17	487	511	571	523	601*	620*	555	583	570	517	515
Male	436	479	521	476	547	569*	499	523	498	461	470
Female	51	32	50	47	55	50	56	60	72	56	45
Aged 18 to 25	1,502*	1,486*	1,589*	1,664*	1,715*	1,718*	1,762	2,056	2,182*	1,867	1,911
Male	1,455*	1,418*	1,532*	1,588*	1,644	1,633*	1,687	1,926	2,063*	1,769	1,820
Female	47*	67	56*	75	71	86	75	131	119	98	91
Aged 26 or older	5,797*	5,728*	4,994*	5,495*	5,910	5,722*	6,388	5,976	6,127	5,859	6,609
Male	5,351*	5,199*	4,677*	5,110*	5,648	5,396*	6,062	5,754	5,807	5,446*	6,205
Female	447	529	318	385	262	325	327	221	320	413	404

* Difference between estimate and 2012 estimate is statistically significant at the .05 level.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2002 to 2005, 2006 to 2010 (revised March 2012), and 2011 to 2012.

TABLE S1c. Standard errors of percentages of persons aged 12 or older with smokeless tobacco use in the past month, by age group and gender: 2002 to 2012 (supports Figures 1, 2, and 3)

Age group/gender	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total	0.12	0.12	0.10	0.11	0.12	0.11	0.12	0.12	0.12	0.11	0.11
Male	0.23	0.22	0.20	0.20	0.23	0.21	0.24	0.23	0.25	0.21	0.22
Female	0.08	0.10	0.05	0.07	0.06	0.09	0.06	0.04	0.06	0.06	0.08
Aged 12 to 17	0.11	0.12	0.13	0.12	0.12	0.14	0.12	0.13	0.12	0.12	0.12
Male	0.21	0.23	0.23	0.22	0.22	0.26	0.22	0.24	0.23	0.22	0.23
Female	0.08	0.05	0.09	0.07	0.08	0.07	0.08	0.08	0.11	0.08	0.06
Aged 18 to 25	0.19	0.18	0.19	0.20	0.20	0.19	0.20	0.23	0.24	0.20	0.20
Male	0.36	0.34	0.36	0.37	0.38	0.37	0.38	0.43	0.43	0.38	0.38
Female	0.05	0.07	0.06	0.08	0.08	0.08	0.08	0.11	0.12	0.08	0.08
Aged 26 or older	0.15	0.15	0.13	0.14	0.14	0.14	0.16	0.14	0.15	0.13	0.14
Male	0.29	0.29	0.26	0.26	0.29	0.26	0.31	0.29	0.31	0.27	0.28
Female	0.11	0.13	0.07	0.09	0.08	0.11	0.07	0.05	0.07	0.08	0.10

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2002 to 2005, 2006 to 2010 (revised March 2012), and 2011 to 2012.

TABLE S2A. Percentages of persons aged 12 or older initiating smokeless tobacco use in the past year among those at risk for initiation, by age group and gender: 2002 to 2012 (supports Figures 4, 5, and 6)

Age group/gender	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total	0.5	0.5	0.5	0.6*	0.7*	0.6*	0.7*	0.7*	0.7*	0.6*	0.5
Male	0.9	0.9	0.9	1.0*	1.3*	1.2*	1.2*	1.3*	1.2*	1.2*	0.8
Female	0.2	0.2	0.2	0.2	0.2	0.3*	0.3*	0.3*	0.3*	0.2	0.2
Aged 12 to 17	2.0	2.1	1.9	2.3*	2.5*	2.6*	2.6*	2.8*	2.5*	2.1*	1.7
Male	3.0	3.4*	2.9	3.5*	4.0*	4.0*	4.0*	4.4*	3.8*	3.4*	2.7
Female	1.0	0.8	0.9	1.1	1.0	1.2*	1.2*	1.2*	1.2*	0.9	0.8
Aged 18 to 25	1.6	1.4*	1.7	1.9	2.1	2.2*	2.2*	2.4*	2.4*	2.1	1.8
Male	3.1	2.5*	2.9	3.4	3.9	3.9*	3.8	4.2*	4.1*	3.7	3.2
Female	0.6	0.6	0.8	0.8	0.7	0.9	0.9	1.1*	1.1*	1.0	0.7
Aged 26 or older	0.1	0.1	0.1	0.1	0.1	0.1	0.1*	0.1	0.1*	0.1	0.1
Male	0.1	0.1	0.1	0.1	0.2	0.1	0.2*	0.2*	0.2*	0.3*	0.1
Female	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1

* Difference between estimate and 2012 estimate is statistically significant at the .05 level.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2002 to 2005, 2006 to 2010 (revised March 2012), and 2011 to 2012.

TABLE S2b. Numbers in thousands of persons aged 12 or older initiating smokeless tobacco use in the past year among those at risk for initiation, by age group and gender: 2002 to 2012 (supports Figure 4)

Age group/gender	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total	950	928	999	1,134	1,335*	1,299*	1,413*	1,468*	1,425*	1,297*	997
Male	702	708	727	846	1,040*	964*	1,024*	1,109*	1,073*	1,006*	739
Female	249	220	272	288	295	335	390*	359*	353*	291	258
Aged 12 to 17	459	487	447	545*	594*	622*	612*	653*	572*	508*	415
Male	343	392*	338	416*	477*	476*	468*	515*	434*	399*	318
Female	116	95	109	129	117	146*	144*	138*	138*	109	97
Aged 18 to 25	396*	353*	432	506	568	597	583	664*	652*	599	496
Male	307	265*	320	380	457	457	438	490*	484*	445	387
Female	89	88	112	126	111	140	145	174*	167*	154	109
Aged 26 or older	95	88	121	83	174	80	219	152	202*	190	85
Male	52	51	69	51	106	32	117*	105*	155*	162*	34
Female	43	37	52	32	68	49	102	47	47	29	51

* Difference between estimate and 2012 estimate is statistically significant at the .05 level.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2002 to 2005, 2006 to 2010 (revised March 2012), and 2011 to 2012.

TABLE S2c. Standard errors of percentages of persons aged 12 or older initiating smokeless tobacco use in the past year among those at risk for initiation, by age group and gender: 2002 to 2012 (supports Figures 4, 5, and 6)

Age group/gender	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total	0.03	0.02	0.03	0.03	0.04	0.03	0.04	0.03	0.03	0.04	0.02
Male	0.06	0.05	0.06	0.06	0.08	0.06	0.07	0.07	0.07	0.08	0.05
Female	0.02	0.02	0.03	0.02	0.03	0.03	0.05	0.03	0.03	0.02	0.02
Aged 12 to 17	0.12	0.12	0.12	0.14	0.13	0.15	0.14	0.14	0.14	0.13	0.11
Male	0.20	0.22	0.21	0.25	0.23	0.27	0.25	0.26	0.25	0.24	0.20
Female	0.12	0.10	0.11	0.13	0.12	0.13	0.13	0.12	0.13	0.11	0.10
Aged 18 to 25	0.13	0.11	0.12	0.13	0.15	0.15	0.15	0.16	0.15	0.15	0.13
Male	0.30	0.22	0.24	0.27	0.31	0.30	0.29	0.30	0.30	0.31	0.26
Female	0.09	0.09	0.10	0.11	0.11	0.13	0.12	0.14	0.12	0.11	0.09
Aged 26 or older	0.02	0.02	0.02	0.02	0.03	0.01	0.04	0.02	0.03	0.03	0.02
Male	0.04	0.04	0.05	0.03	0.07	0.02	0.06	0.05	0.07	0.07	0.02
Female	0.02	0.02	0.02	0.02	0.03	0.02	0.05	0.02	0.02	0.01	0.02

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2002 to 2005, 2006 to 2010 (revised March 2012), and 2011 to 2012.