

IOWA YOUTH TOBACCO SURVEY

2000-2008

Full Report

Findings about behaviors, attitudes and knowledge among youth
concerning tobacco use

Prepared for the Division of Tobacco Use Prevention and Control
Iowa Department of Public Health
Lucas State Office Building
321 – E12th Street
Des Moines, Iowa 50319
Web site: <http://www.idph.state.ia.us/tobacco/default.asp>
Bonnie E. Mapes, Division Director

Division Mission:

To establish a comprehensive partnership among state government, local communities, and the people of Iowa to foster a social and legal climate in which tobacco use becomes undesirable and unacceptable.

October 2009

Acknowledgements

The Division of Tobacco Use Prevention and Control owes the successful completion of the 2008 Iowa Youth Tobacco Survey to the combined efforts of many, but especially:

- The administrators, teachers and students in the 50 Iowa middle and high schools that participated in the survey. Their cooperation, time and energy were essential to its success.
- Centers for Disease Control and Prevention (CDC), Office on Smoking and Health which provided funding, guidance on implementation and assistance with analysis of survey data.

How to obtain copies of this report:

This report, its executive summary and a slide show based on this report are all available online for printing and downloading. Visit the Web site of the Division of Tobacco Use Prevention and Control, Iowa Department of Public Health: <http://www.dip.stat.ia.us/tobacco/default.asp>.

How to copy individual tables and charts from this report:

Individual charts and tables found in the pdf version of this report online can be copied by opening the report in the standard manner using free *Adobe Reader* software and clicking on the toolbar menu: Tools/Select and Zoom/Snapshot.

TABLE OF CONTENTS

	PAGE
SUMMARY OF FINDINGS	i
1: INTRODUCTION	1.1
2: CURRENT TOBACCO USE	2.1
3: ANY TOBACCO USE IN LIFETIME	3.1
4: INDICATORS OF ADDICTION	4.1
5: SUSCEPTIBLE NEVER SMOKERS	5.1
6: CESSATION: WANTING & TRYING TO QUIT	6.1
7: CESSATION SERVICES OF PROVIDERS	7.1
8: PRO & ANTI-TOBACCO MESSAGES IN THE MEDIA	8.1
9: JEL AND ANTI-TOBACCO MESSAGES AT SCHOOL	9.1
10: USE OF TOBACCO AT SCHOOL	10.1
11: ANTI-TOBACCO RULES & MESSAGES AT HOME AND WORK	11.1
12: PEER ENVIRONMENT: FRIENDS WHO SMOKE	12.1
13: BELIEFS ABOUT ADVANTAGES/DISADVANTAGES OF SMOKING	13.1
14: ACCESS TO TOBACCO BY UNDERAGE SMOKERS	14.1
15A: SECONDHAND SMOKE EXPOSURE	15A.1
15B: BELIEFS ABOUT THE HARMFULNESS OF SMOKING/SECONDHAND SMOKE	15B.1
DISCUSSION	
REFERENCES	
CREDITS	

Summary of Iowa Youth Tobacco Survey (IYTS) Findings

Current Tobacco Use 2000-2008:

-Since 2000, the percent of both Iowa middle and high school students who currently use tobacco has dropped substantially. Current tobacco use (use on one or more of the past 30 days):

- declined 80% among middle school students (dropping from 17% to 3%); and
- declined 31% among high school students (dropping from 39% to 27%).

-During the eight years 2000 through 2008, middle school students cut their rate of tobacco use dramatically not only overall, but for all three of the most commonly used forms of tobacco: Cigarette, cigar and smokeless tobacco use declined by between 73% and 79%.

-Almost all of the decline in tobacco use among high school students between 2000 and 2008 was due to a drop in the rate of cigarette use (down by 39%). The high school use rate of cigars was down by 8% and smokeless tobacco rate of use was down by 13% during this time.

-Cigarettes remain the most preferred form of tobacco among Iowa youth, followed by cigars and smokeless tobacco. In 2008:

- 2.8% of middle school students and 19.9% of high school students currently smoked cigarettes;
- 2% of middle school students smoked cigars and 13% of high school students smoked cigars; and
- 1% of middle school students used smokeless tobacco and 9% of high school students used smokeless tobacco.

-In 2008, Iowa high school students were eight times more likely to use some form of tobacco than were middle school students (26.9% vs. 3.4%).

-In 2008, about:

- 3,600 middle school students currently used some form of tobacco, down from 18,400 students in 2000;
- 41,000 high school students currently used some form of tobacco, down from 60,600 students.

-Since 2004: The rate of use of every form of tobacco continued to decline among middle school students. In this time, the decline in the rate of use of all forms of tobacco among high school students stabilized or increased slightly.

Current Use by age and sex in 2008:

-For both sexes, tobacco use rates were exponentially lower among 6th grade students (first year of middle school) than among 12th grade students (high school seniors). In 2008:

- Males in 12th grade were 17 times more likely than males in the 6th grade to use tobacco: 51% of males in 12th grade currently used some form of tobacco while only 3% of 6th grade males currently used tobacco.
- Females in 12th grade were 25 times more likely to use tobacco than were females in the 6th grade: 25% of females in 12th grade currently used some form of tobacco compared to less than 1% of females in 6th grade.
- The overall tobacco current use rate was eight times higher in high school than in middle school in 2008 (26.9% vs. 3.4%).

-Males in both middle and high school were more likely to use tobacco overall than were females. Most of the difference seen in tobacco use rates between the sexes was due to males being more likely than females to use cigars and smokeless tobacco. Cigarette use rates were similar among males and females at the same school-level.

-Since 2000, cigarettes have remained the most preferred tobacco product for both sexes in middle and high school. However, as male cigarette use rates have declined more sharply than have male use rates of other forms of tobacco, the rate of use of cigars and smokeless has begun to rival that of cigarettes among males in both middle and high school. (Figure 2.6)

In high school 20% of males smoked cigarettes, while 19% reported smoking cigars and 16% reported using smokeless tobacco in 2008. In middle school, 3% of males smoked cigarettes, while 2% smoked cigars and 1% used smokeless tobacco in 2008

Current use of tobacco: Iowa vs. U.S.:

-The rate of cigarette smoking among high school students in Iowa (23%) was slightly higher than that of high school students nationally (20%) in 2006, the latest year for which data from the national Youth Tobacco Survey are available. Historically, Iowa rates have closely mirrored national rates.

Lifetime use (ever used tobacco)

-Lifetime tobacco use rates trended lower in both middle and high school between 2000 and 2008.

- Between 2000 and 2008, the proportion of middle school students who had ever used any form of tobacco dropped by 71% (from 46% to 13%) while the proportion of high school students who ever used any form of tobacco fell by 27% (from 67% to 49%). (Ever having used cigarettes and cigars is defined as ever having taken even one or two puffs of these forms of tobacco.)
- Among middle school students between 2000 and 2008, the rate of ever having used for the three most common forms of tobacco--cigarettes, cigars and smokeless tobacco, each fell by about 75%.
- The proportion of high school student who had ever smoked cigarettes dropped by 34% (from 63.5% to 41.8%), the proportion that had ever smoked cigars dropped by 26% (from 43.5% to 32.1%) and the proportion that had ever used smokeless tobacco dropped by 31% (from 27.4 % to 18.9%).

Addiction to tobacco:

-Age at which youth first smoked a cigarette dropped in middle and in high school between 2000 and 2008.

- The estimated average (median) age of initiation (age at which a student first smoked a whole cigarette) was estimated to be around age 11 for middle school students and close to 14 years of age for high school students in 2008.
- Among middle school students who had ever smoked cigarettes (smoked even one or two puffs in their lifetime), 23% first smoked a cigarette before age 11 in 2008. In 2000, 47% of middle school students who had ever smoked first smoked before age 11.
- In 2008, among high school students who had every smoked, 11% first smoked a whole cigarette before age 11, down more than 75% from 2000 when 46.4% first started to smoke before age 11

-The amount and frequency of smoking declined between 2000 and 2008 among middle school students, but not among high school students.

- Frequent cigarette smoking is defined as smoking on 20 or more of the past 30 days. Among current cigarette smokers in middle school in 2008, 20.7% were

frequent smokers, a decrease of 30% from 2000 when 29.7% of middle school smokers were frequent smokers.

- Among current cigarette smokers in high school, about 43.3% were frequent smokers in 2008, a decrease of only 1.6% from 2000 when 44% were frequent smokers.
- Moderate or heavy smoking is defined as smoking six or more cigarettes per day on the days that one smokes. The proportion of current cigarette smokers among middle school students who were moderate to heavy smokers dropped by 51.9% between 2000 and 2008, from 20.6% to 9.9%.
- The proportion of current cigarette smokers among high school students who were moderate to heavy smokers dropped by 26.3% between 2000 and 2008, from 29.7% to 21.9%.

Addiction to tobacco: Usual brand

-Among middle and high school smokers who have a usual brand, Marlboro was the brand of choice for all years 2000-2008. However, heavy marketing campaigns by the tobacco industry have resulted in Camel, Newport and mentholated cigarettes gaining market share among youth in recent years.

-The tobacco industry spends an estimated \$174 million promoting tobacco use to lowans each year and studies have shown that young people are twice as susceptible to this pro-tobacco marketing as adults. (Campaign for Tobacco Free Kids, 2010)

-More than half of current cigarette smokers in middle school and 80% of current smokers in high school reported having a usual brand in 2008. Having a usual brand, is an indicator of addiction and linked to greater likelihood of heavier and long-term cigarette smoking.

-Middle school addiction to tobacco:

- More than half of all current smokers in middle school usually smoke one of three brands of cigarettes: Marlboro (32.2%), Camel (15.1%) or Newport (10%).
- Among middle school students, the proportion of current cigarette smokers that usually smoked Camel cigarettes increased 170% between 2000 and 2008 (growing from 5.6% to 15.1%).
- Between 2000 and 2008, middle school smoker preference for Marlboro and Newport cigarettes declined by 47% and 28% respectively, as preference for Camel cigarettes grew.

- Current cigarette smokers in middle school increasingly chose to smoke mentholated cigarettes between 2000 and 2008. In 2008, almost 50% of female and male middle school smokers usually smoked mentholated cigarettes, an increase of 32% among female and 61% among male middle school smokers.

-High school addiction to tobacco:

- More than 80% of all current smokers in high school usually smoke one of three brands of cigarettes: Marlboro (54.8%), Camel (19.6%) or Newport (6.7%).
- Among high school students, the proportion of current cigarette smokers that usually smoked Camel and Newport cigarettes more than doubled between 2000 and 2008. Their use was up 206% and 347% respectively.
- Between 2000 and 2008, high school smoker preferences for Marlboro cigarettes declined by 23% as preference for Camel and Newport cigarettes grew.
- Current cigarette smokers in high school increasingly chose to smoke mentholated cigarettes between 2000 and 2008. In 2008, more than 50% of female and about 40% of male high school smokers usually smoked mentholated cigarettes, an increase of 225% for female and 80% for male high school smokers.

Susceptible never smokers:

-The percent of middle and high school students who were never smokers and highly susceptible to beginning to smoke dropped between 2000 and 2008

- In 2008, among those who had never smoked, 16% of middle school and 23% of high school students were susceptible never smokers—susceptible to starting to smoke. In 2000, 25% of middle school students and 24% of high school students had been susceptible never smokers.

Cessation: Trying to quit:

-More than half of students who currently smoke in middle and high school have tried to quit in the past 12 months, but trends show the percent in high school who have tried to quit has been stagnant since 2000.

- In 2008, of current cigarette smokers in middle school:
 - 60% wanted to stop smoking;

- 69% had tried to quit at least once in the last 12 months;
 - 30% had tried to quit three times or more; and,
 - 50% of those who had tried to quit were unable to stay off cigarettes for more than 30 days.
- In 2008, of current cigarette smokers in high school:
 - 51% wanted to stop smoking;
 - 51% had tried to quit at least once in the last 12 months;
 - 27% had tried to quit three times or more; and,
 - 36% of those who had tried to quit were unable to stay off cigarettes for more than 30 days.
- Between 2000 and 2008, the percentage of current cigarette smokers in middle school who want to stay off smoking grew from 46.4% to 59.5%, a 28.2% increase.
 - Between 2000 and 2008, the percentage of current cigarettes smokers in high school who want to stay off smoking essentially remained unchanged (51.4% in 2000 and 50.5% in 2008).
 - Between 2000 and 2008, the percent of current cigarettes smokers in high school who had tried to quit three or more times in the last 12 months declined from 56.8% to 50.8%. The percent of current smokers in middle school who had tried to quit smoking three or more times fluctuated during this time, showing no directional pattern upward or downward .

Cessation messages from health care professionals:

-Few in middle and high school were asked if smoke or advised to quit.

- In 2008, 10% of all middle school students were asked by a health care professional if they smoked, while 23% were advised by a health care professional not to smoke.
- That year, 29% of all high school students were asked by a health care professional if they smoked and 29% were advised by a health care professional not to smoke.

Pro-tobacco messages:

-Almost all youth regularly receive pro-tobacco media messages on the Internet, TV and at the movies.

- In 2008, 72% of middle school and 87% of high school youth reported that when they watch movies or TV or use the Internet that they see ads promoting tobacco some or most of the time.
- Between 2000 and 2008, the openness of both middle and high school youth to wearing, using, buying or receiving items with a pro-tobacco message on them dropped substantially.
- Youth who are current tobacco users are especially receptive to pro-tobacco advertising compared to youth who have never used tobacco: In 2008, 34% of middle school students who currently used tobacco were receptive to pro-tobacco advertising, while only 1% of never smokers in middle school were receptive.
- Both students in middle and high school were less likely to hear or see anti-tobacco media messages than pro-tobacco media messages.

JEL and anti-tobacco messages:

-Just Eliminate Lies (JEL), a youth led program that seeks to stop tobacco use among young people, lost some reach but still was considered highly effective.

- In 2008, middle and high school students were less likely to have seen or heard of JEL than in past years: 30% of middle school and 61% of high school students reported having ever heard or seen anything about JEL in the past year, down from 79% and 85%, respectively in 2000.
- However, among those who have heard of JEL, students continue to report finding that JEL is convincing (91% of middle and 85% of high school students), informative (78% of middle and 62% of high school students) and key to changing their attitudes about tobacco (76% of middle and 56% of high school students).

Tobacco use on school property less than in 2000

-The use of tobacco on school property remains low, less than one percent of middle school students and 7% of high school students have smoked cigarettes on school property in the past 30 days.

-Smokeless tobacco use on school property is low as well. Less than one percent of middle school students have used smokeless tobacco on school property in the past 30 days. The rate for high school students is somewhat higher at 4%.

Smoking rules at home and work:

-Many youth reported smoking was allowed at their workplace, despite recent passage of the Iowa Smokefree Air Act banning indoor smoking; about 75% of middle and high school students live in homes where smoking is never allowed.

- Despite passage in 2008 of the Iowa Smokefree Air Act, which bans smoking in virtually all workplaces and public indoor space, almost 30% of middle school and almost 45% of high school students reported that smoking was always or sometimes allowed at their place of work in 2008-2009.
- In middle school in 2008, 67% of students reported that smoking was not allowed inside the vehicle in which they rode the most, while 59% of high school students report smoking being banned from their usual vehicle.
- In middle school in 2008, 70% of students reported that their parents had discussed the dangers of tobacco use with them at least once during the past 12 months.
- In high school in 2008, 62% of students reported that their parents had discussed the dangers of tobacco use with them at least once during the past 12 months.
- Half of all students who smoke cigarettes say their parents are not aware that they smoke: In 2008, 49% of current cigarette smokers in middle school and 52% of current cigarette smokers in high school students had parents who were not aware of their smoking.

Friends who smoke cigarettes:

-Most in middle and high school who currently smoked also had friends who also smoked; most who did not smoke also had no friends who smoked.

- Data from national surveys have shown that young people who have friends who smoke are more likely to smoke themselves: Young people with three or more friends who smoke are ten times more likely to smoke than are young people who have no friends who smoke.

- In 2008, 86% of current smokers in middle school had one or more friends who smoke. Among *all* middle school students, only 15% had one or more friends who smoke.
- In 2008, 93% of current smokers in high school had one or more friends who smoke. Among all high school students, only 29% of *all* students had one or more friends who smoke.

Beliefs about smoking

-Smokers were more likely than nonsmokers to believe that smoking conveys social advantage with their peers

- Among current smokers in middle school, 39% believed that those who smoke have more friends, while only 8% of students in middle school who had never smoked believed so.
- In high school, 33% of current smokers believed that smokers have more friends, while only 10% of students in high school who had never smoked believed that smokers have more friends.
- Among current smokers in middle school, 31% believed that smoking makes one cool or fit in, while only 4% of never smokers in middle school believed so.
- In high school, 21% of current smokers believed that smoking makes one cool or fit in, while only 7% of never smokers in high school believed that smokers look cool or better fit in.

-Almost everyone believed smoke to be harmful.

- While the vast majority of students believed that smoking is harmful, current smokers in both middle and high school were somewhat less likely than were never smokers to believe so.
- Light smoking (one to five cigarettes per day) was seen as harmful by 93% of middle school never smokers and 82% of middle school smokers. In high school, 96% of never smokers and 88% of current smokers believed that light smoking was harmful.

- In middle school 95% of never smokers and 89% of current smokers believed that secondhand smoke was harmful to one's health. In high school, 97% of never smokers and 85% of current smokers believed that secondhand smoke was harmful.

Secondhand smoke exposure:

-Smokers reported more exposure to secondhand smoke than did nonsmokers.

- Among current smokers in middle school, 92% were in the same room as another smoker in the past 7 days, while 37% of never smokers in middle school were in the same room as a smoker.
- Among current smokers in high school, 91% were in the same room as another smoker in the past 7 days, while 41% of never smokers in high school were in the same room as a smoker.
- Despite passage of Iowa Smokefree Air Act, 28% of middle school youth who work and 30% of high school youth who work reported being exposed to others smoke in the past 7 days at work.

Section 1

Introduction

With funds obtained from the Master Settlement Agreement between the states and tobacco companies, each state in the nation has the opportunity to implement a sustained and comprehensive tobacco control program for their youth. Data collection, essential to needs assessment and program evaluation, is an integral part of every states' comprehensive tobacco control program for youth.

Under the Master Settlement Agreement, the Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention (CDC) coordinates each state's data collection efforts. The CDC has developed a core set of questions that are included in each state's periodic youth tobacco survey and has provided technical assistance to the states regarding sample selection and appropriate data analysis techniques. Every two years since 2000, with CDC guidance, the Iowa Department of Public Health has conducted the Iowa youth tobacco survey.

The 2008 Iowa Youth Tobacco Survey (IYTS) questionnaire included CDC core questions as well as a number of state-added questions. (A copy of the 2008 survey instrument can be obtained from the Iowa Department of Public Health, Division of Tobacco Use Prevention and Control, 321 – E12th Street, Lucas State Office Building, Des Moines, Iowa 50319-0075, email: JMuldoon@idph.state.ia.us.) Public school students in grades 6 through 12 comprised the study population. A multi-stage sampling design, as developed by CDC, was employed to select a representative sample of students from those grades. The first stage involved a random selection of public schools proportional to their enrollment size, followed by a random selection of classes within each school.

Student participation has always been voluntary. Those students that chose to participate completed an anonymous and confidential self-administered questionnaire that covered: demographics (age, sex, grade in school and race/ethnicity); use of tobacco products; second hand smoke exposure; purchasing habits; tobacco-related knowledge and attitudes; tobacco-related media and advertising exposure; and tobacco prevention program exposure.

Some 65 schools in Iowa were selected to participate in the 2008 IYTS: 30 middle schools (grades 6 through 8) and 35 high schools (grades 9 through 12). Twenty-one of the middle schools and twenty-nine of the high schools provided useable data (a 70% middle school and 83% high school response rate). There were 1,466 middle school students selected to participate and 1,327 (91%) completed a

useable questionnaire. There were 1,399 high school students selected to participate and 1,264 (90%) completed a useable questionnaire. The overall response rate, including both schools and students, was 63% for the middle school sample and 75% for the high school sample. The questionnaires were completed between September 2008 and January 2009.

Weighting of the IYTS survey data was used to help assure that the survey reflected the demographics of the overall population of youth in Iowa. Weighting, as applied to the raw IYTS data was complex mathematically, but simple in its objective. A weighting factor was applied to each student record (the responses to the 2008 IYTS questionnaire) to adjust for non-response at the school and student level, and for varying probabilities of selection so that the final weighted proportion of each participating student in each grade and gender matched those proportions in the Iowa student population overall.

The 2008 IYTS sample was too small to provide meaningful county based analyses. Prevalence rate estimates based on samples with less than 35 students are typically untrustworthy and only about 2,600 students participated statewide. The 2008 IYTS data do, however, provide valid estimates of student tobacco use and tobacco-related knowledge and attitudes statewide by gender and school level.

The primary purpose of this report is to: 1) help tobacco control program planners, administrators and policymakers more comprehensively identify the extent and kinds of tobacco control programs needed in Iowa; and, 2) provide data that can be used to make resource allocation decisions that are based on objectively identified needs.

Because all surveys are subject to sampling and measurement error, the differences observed in this report may not be real. Statistical tests of significance can be used as a means to identify real differences, but at this exploratory stage of analysis practical significance is even more important. That is, if the differences observed are not large enough to be of practical consequence (differences large enough to justify resource allocation decisions), then small, but statistically significant differences, are of little value for the purposes of this report.

From both a statistical and practical perspective, the larger the differences observed, the more important those differences are in terms of identifying program needs and making resource allocation decisions. While not binding in any respect in terms of either statistical or practical significance, a couple of general guidelines are offered for the reader's consideration. A 5% difference would be a statistically significant difference in most, but not all, instances with samples of the size included in this report. Perhaps 10% or larger might be more appropriate for identifying practical significance. Our readers may have a better appreciation of what is of practical significance for a specific purpose, but at least these general criteria provide some guidelines to follow.

Section 2

Current Tobacco Use

Overall Trends in Current Tobacco Use (Figures 2.1 - 2.4)

2000-2008: Over the past eight years, the percent of both middle and high school students who currently use tobacco has dropped significantly

Since 2000, the overall rate of current use of tobacco among Iowa youth has declined 80% among middle school students (dropping from 17% to just 3%) and 31% among high school students (dropping from 39% to 27%). (Current use is defined as having used in the past 30 days.)

Between 2000 and 2008, middle school students cut their rate of use of tobacco dramatically not only overall, but for all three of the most commonly used forms of tobacco: cigarettes, cigars and smokeless tobacco. Use declined by between 73% and 79% for these three tobacco products.

While not cutting their use as dramatically during this time, high school students also reduced their rate of use of all three of these most commonly used forms of tobacco by between 8% (cigars) and 39% (cigarettes).

Cigarettes remain the most preferred form of tobacco among Iowa youth, followed by cigars and smokeless tobacco. In 2008:

- 3% of middle school students and 20% of high school students currently smoked cigarettes;
- 2% of middle school students smoked cigars and 1% used smokeless tobacco; and
- 13% of high school students smoked cigars and 9% used smokeless tobacco.

Cigarettes are most preferred tobacco product

Since 2000, cigarette smoking has remained the most commonly used form of tobacco among both middle and high school students, despite steady and significant declines in the rate of cigarette smoking among both groups. In 2008, 3% of middle school students and 20% of high school students smoked cigarettes. In 2000, 12% of middle school and 33% of high school students smoked cigarettes.

2004-2008: Current use rate continued to decline in middle school; use rates stabilized or up slightly in high school:

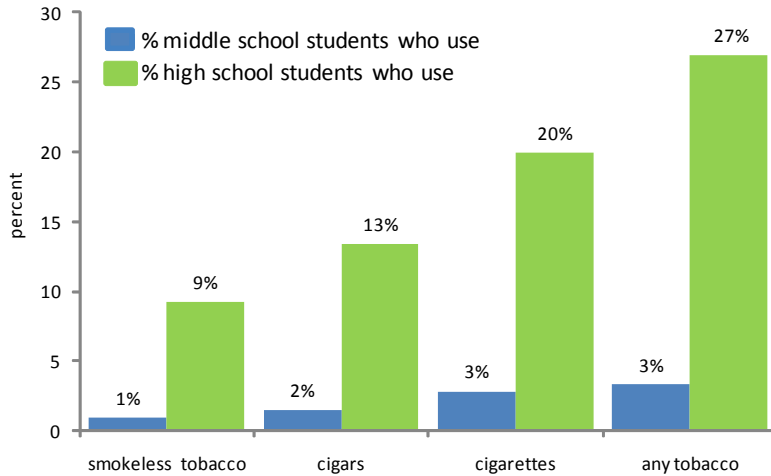
In more recent years, middle school students have continued to lower their rate of use of cigarettes, cigars and smokeless tobacco.

In contrast, high students, while maintaining their rate of use of cigarettes and cigars, appear to be slightly increasing their rate of use of smokeless tobacco. The rate of smokeless tobacco use was 8.7% in 2006 and 9.2% in 2008.

Number of students using tobacco:

In 2008, about 3,600 middle school students currently used some form of tobacco, down from 18,400 students in 2000. In 2008, 41,000 high school students currently used some form of tobacco, down from 60,600 students in 2000.

Figure 2.1
Percent of students currently using tobacco
2008



2008 Iowa Youth Tobacco Survey (IYTS), IA Dept. Public Health. Current use means having used the product on one or more of the past 30 days.

In 2008, Iowa high school students overall were eight times more likely than middle school students to use tobacco in some form (26.9% vs. 3.4%).

Large differences were seen between middle and high school students, not only for tobacco use overall, but for cigarettes, cigars and smokeless tobacco as well: the rate of cigarette smoking was 600% greater in high school than middle school; the rate of cigar smoking 800% greater; and, the rate of smokeless tobacco use 900% greater.

Figure 2.2

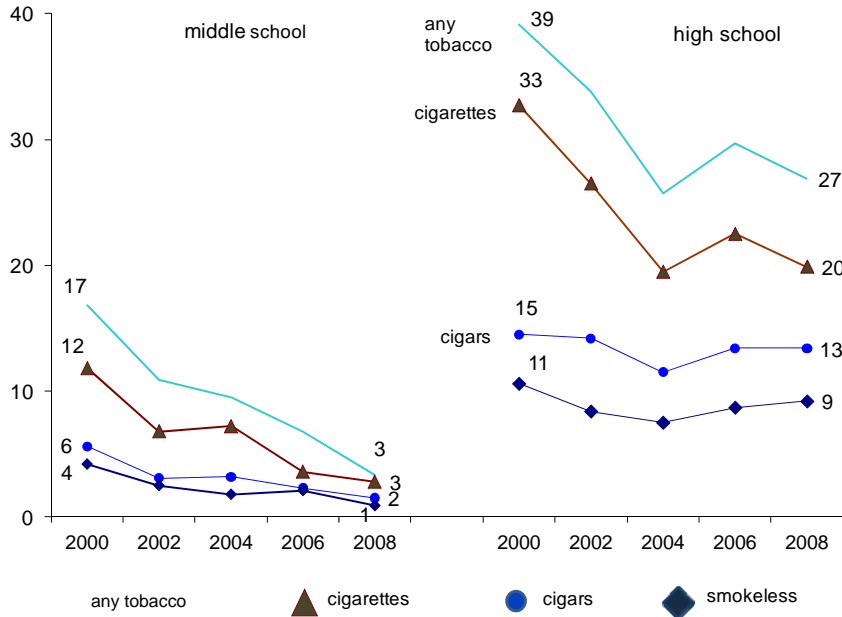
Trends in percent and number of students who currently use tobacco, by product, 2000-2008

	middle school									
	percent					% change		estimated number		
	2000	2002	2004	2006	2008	2000-08	2006-08	2000	2006	2008
Any tobacco product	16.8	10.9	10.1	6.8	3.4	-80%	-50%	18,436	7,315	3,575
Cigarettes	11.8	6.8	7.2	3.6	2.8	-76%	-22%	12,949	3,873	2,944
Cigars/little cigars	5.6	3.1	3.2	2.3	1.5	-73%	-35%	6,145	2,474	1,577
Smokeless tobacco	4.2	2.5	1.8	2.1	0.9	-79%	-57%	4,609	2,259	946

	high school									
	percent					% change		estimated number		
	2000	2002	2004	2006	2008	2000-08	2006-08	2000	2006	2008
Any tobacco product	39.1	33.8	25.8	30	26.9	-31%	-10%	60,634	47,071	40,886
Cigarettes	32.7	26.7	19.5	22.5	19.9	-39%	-12%	50,709	35,303	30,247
Cigars/little cigars	14.5	14.2	11.5	13.4	13.4	-8%	0%	22,486	21,025	20,367
Smokeless tobacco	10.6	8.4	7.5	8.7	9.2	-13%	6%	16,438	13,651	13,983

Currently using means having used the product on one or more of the past 30 days.
 2000-2008 Iowa Youth Tobacco Surveys, IA Dept. Public Health.

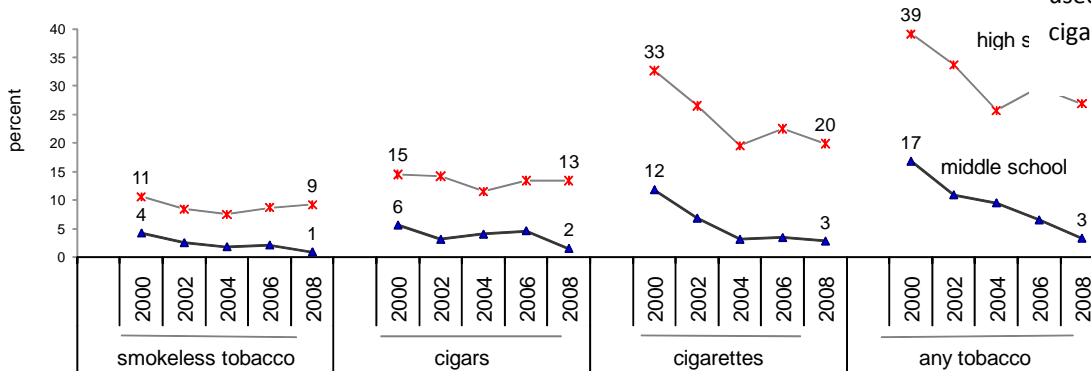
Figure 2.3
Trends in the percent of students currently using tobacco, by school-level and product type, 2000-08



Among middle school students, substantial declines in the use of cigarettes, cigars and smokeless tobacco between 2000–2008 left prevalence use rates of these three forms of tobacco within a few percentage points of one another: (1%-3%).

Between 2000 and 2008 among high school students, a substantial decline in the rate of use of cigarettes was seen (40% decline to 20% prevalence), but not in the rate of use of cigars and smokeless tobacco. Nevertheless, cigarette use in high school remains 35% higher than the next most commonly used tobacco product, cigars (13% use rate).

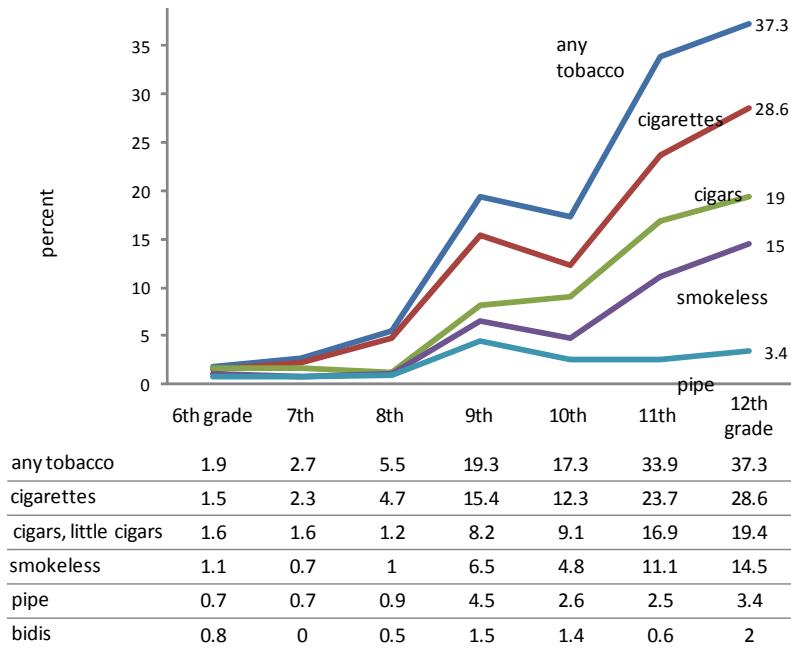
Figure 2.4
Trends in the percent of students currently using tobacco by product type and school level, 2000-08



Percent of Iowa middle and high school students who used various tobacco products on one or more of the past 30 days, 2000-2008 Iowa Youth Tobacco Surveys, IA Dept. of Public Health.

Figure 2.5

Percent of students currently using tobacco, by grade-level, 2008



Percent of Iowa students in 6th through 12th grade using tobacco products during the past 30 days, 2008, IYTS, Iowa Department of Public Health.

Current tobacco use by student grade-level: In 2008, the use of all forms of tobacco was seen to increase with age, rising from 2% in 6th grade (~11 years of age) to 37% in 12th grade (~17 years of age). Cigarette use increased more than other forms of tobacco - -from 2% in 6th grade to 29% in 12th grade.

High school seniors are 19 times more likely to smoke cigarettes than are 6th grade students. High school seniors are 12 times more likely to smoke cigars and 13 times more likely to use smokeless tobacco than are 6th graders.

(in reference to Figure 2.5, bidis are small flavored cigarettes manufactured in India and nearby countries.)

Trends in Current Tobacco Use by Sex (Figures 2.6 - 2.9)

Middle school: Since 2000, the overall rate of current tobacco use has declined 82% among female and 78% among male middle school students.

In middle school in 2008, the overall rate of tobacco use was 3% in females and 4% in males.

In middle school, both male and female students dramatically reduced their rate of use of tobacco not only overall, but of each of the three most commonly used forms of tobacco: cigarettes, cigars and smokeless tobacco (down by 56% to 88%).

High school: Since 2000, the overall rate of current use of tobacco has fallen 32% among females and 31% among males in high school.

In 2008, the overall rate of tobacco use was 22% among female and 32% among male high school students.

While not cutting their use as dramatically as their counterparts in middle school, both female and male high school students also reduced their use of cigarettes, cigars and smokeless tobacco between 2000 and 2008 (down by 5% to 37%). (Figures 2.6-2.9)

In 2008, males in 12th grade were 17 times more likely than males in 6th grade to use tobacco. Females in 12th grade were 12 times more likely to use tobacco than were females in 6th grade.

2006-2008: Middle school use in last two years by sex:

In recent years, female middle school students have continued to decrease their rate of cigarettes, cigars and smokeless tobacco. While males in middle school continued to lower their rate of use of cigars and smokeless tobacco, but not cigarettes: *Cigarette smoking among middle school boys increased slightly* from 2.8% to 3.3% (up 18%) between 2006 and 2008.

2006-2008: High school use in last two years by sex:

Between 2006 and 2008, female high school students continued to lower their rate of use of tobacco in all forms while male high school students lowered their rate of cigarette use, but not of cigars and smokeless tobacco.

Among male high school students, cigar smoking increased 6% (going from 18% to 19%) and smokeless tobacco use increased 13% (going from 14% to 16%) between 2006 and 2008.

Cigarettes most preferred tobacco product among males and females at both school-levels:

Females chose cigarettes over other products by wide margin: Among female middle and high school students, cigarettes have been the most preferred form of tobacco by many fold since the first IYTS in 2000.

In 2008, four times as many female *middle school* students smoked cigarettes as smoked cigars, the next most commonly used form of tobacco. Among female students in *high school*, almost three times as many females smoked cigarettes as smoked cigars.

While males prefer cigarettes, cigars and smokeless tobacco use begins to rival that of cigarettes: Among male students in both middle and high school, because of a relatively large drop in their rate of use of cigarettes (which was not matched by declines in rates of use of the cigars and smokeless tobacco) cigar and smokeless tobacco rates of use now rival that of cigarettes.

Among *high school* males in 2008, 20% smoked cigarettes, 19% smoked cigars and 16% used smokeless tobacco. Among *middle school* males, 3% currently smoked cigarettes, 2% used cigars and 1% used smokeless tobacco.

Figure 2.6

Trends in percent and number of students who currently use tobacco, by product and sex, 2000-2008

middle school									
	percent					% change		estimated number	
	2000	2002	2004	2006	2008	2000-08	2006-08	2000	2008
Any tobacco product									
Female	15.3	9.8	9.9	6.8	2.7	-82%	-60%	8,000	1,378
Male	18.1	11.9	10	6.9	4	-78%	-42%	10,000	2,164
Cigarettes									
Female	12.3	7.2	7.4	4.4	2.4	-80%	-45%	6,600	1,225
Male	11.3	6.4	6.8	2.8	3.3	-71%	18%	6,300	1,785
Cigars/little cigars									
Female	4.3	0.8	2.1	2.1	0.5	-88%	-76%	2,300	255
Male	6.8	4.2	4	2.6	2.4	-65%	-8%	3,800	1,298
Smokeless tobacco									
Female	1.6	2.4	1.1	0.9	0.7	-56%	-22%	3,700	357
Male	6.6	3.9	2.3	3.3	1.1	-83%	-67%	900	595

high school									
	percent					% change		estimated number	
	2000	2002	2004	2006	2008	2000-08	2006-08	2000	2008
Any tobacco product									
Female	32.2	29.5	22.4	25.6	21.8	-32%	-15%	24,000	16,186
Male	45.6	38.1	28.9	34.2	31.6	-31%	-8%	36,000	24,567
Cigarettes									
Female	31.1	26.5	20.3	22.4	19.5	-37%	-13%	24,000	14,479
Male	34.2	26.9	18.5	22.6	20.2	-41%	-11%	27,000	15,704
Cigars/little cigars									
Female	7.7	0.9	7.5	8.5	7.3	-5%	-14%	5,500	5,420
Male	20.5	15.5	15.1	17.9	18.9	-8%	6%	14,900	14,694
Smokeless tobacco									
Female	2.2	7.6	1.2	2.8	1.7	-23%	-39%	1,300	1,262
Male	18.1	20.7	13.5	14.2	16	-12%	13%	12,700	12,439

Currently using means having used the product one or more of the past 30 days.

2000-2008 Iowa Youth Tobacco Surveys, IA Dept. Public Health.

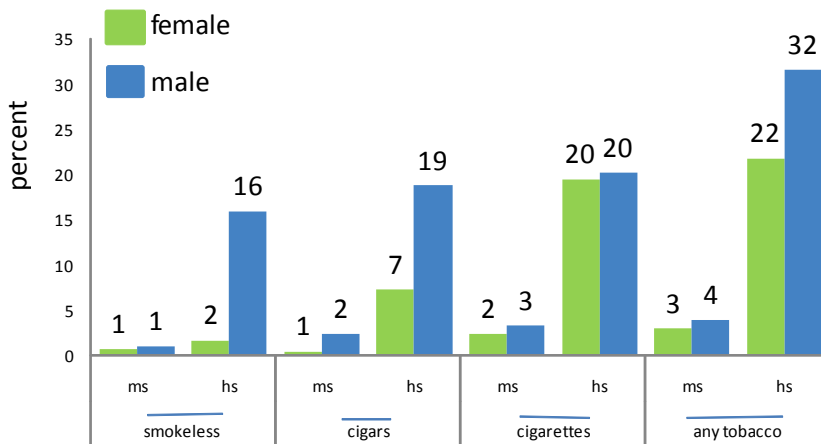
Due to the rounding of rates to one decimal point and not knowing the gender of several surveyed students, the total of the estimated number of male and female students using a particular tobacco product as provided in this table may not sum to the number of total students using that tobacco product as given in earlier tables.

In middle and high school, female tobacco use rates overall are well below male rates:

Middle school: In 2008, the overall rate of current tobacco use among females in middle school was about 67% that of their male counterpart (2.7% vs. 4%). The rate of current use of *cigarettes* among female students in middle school was about 75% that of male middle school students (2.4% vs.3.3%).

High school: While the current cigarette smoking prevalence rate in females in high school is now equal to that of males, the overall rate of tobacco use among females was only about 70% that of males (21.8% vs. 31.6%), as males have much higher rates of use of cigars and smokeless tobacco than have females.

Figure 2.7
Percent of students currently using tobacco
by sex, 2008



Percent of Iowa middle (ms) and high school (hs) students using tobacco products on one or more of the past 30 days, by sex, 2008 Iowa Youth Tobacco Survey, IA Dept. Public Health.

In 2008, comparing the sexes, use of every form of tobacco was greater among males than females of the same school level, except for cigarette use in high school which use was equal (20%) for both sexes.

However, in middle school, differences in use rates between the sexes were minimal-male rates were just 1 percentage point greater than females.

Comparing within gender, females in high school were 8 times more likely to use cigarettes, 15 times more likely to smoke cigars and 2 times more likely to use smokeless tobacco than were females in middle school.

Males in high school were 6 times more likely to use cigarettes, 8 times more likely to use cigars and 15 times more likely to use smokeless tobacco than were males in middle school.

Figure 2.8
Percent of students currently using any tobacco product, by sex and product type, 2008

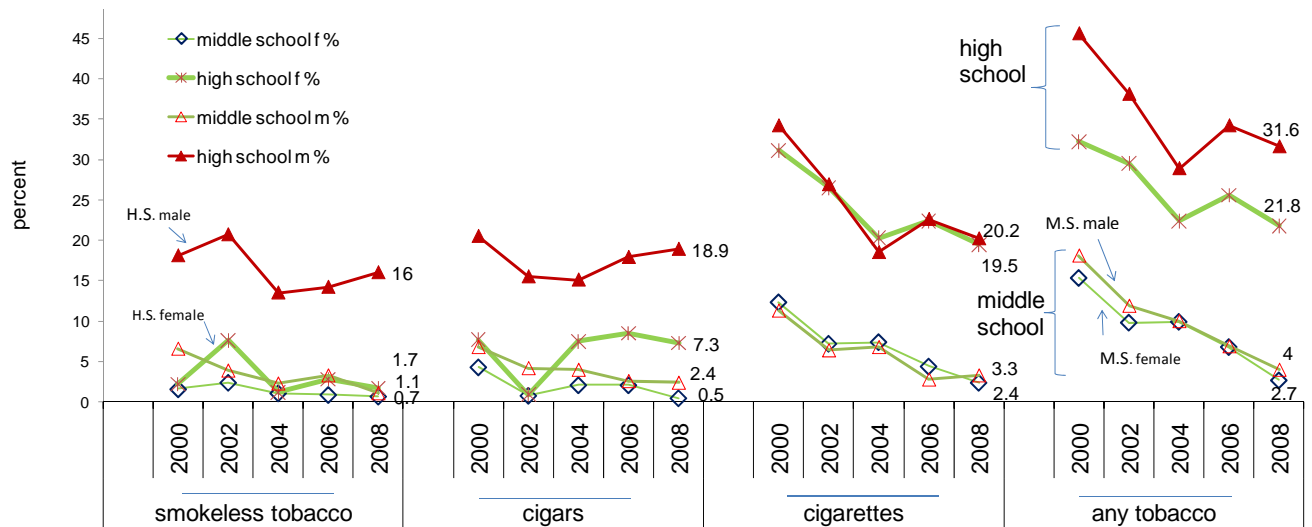
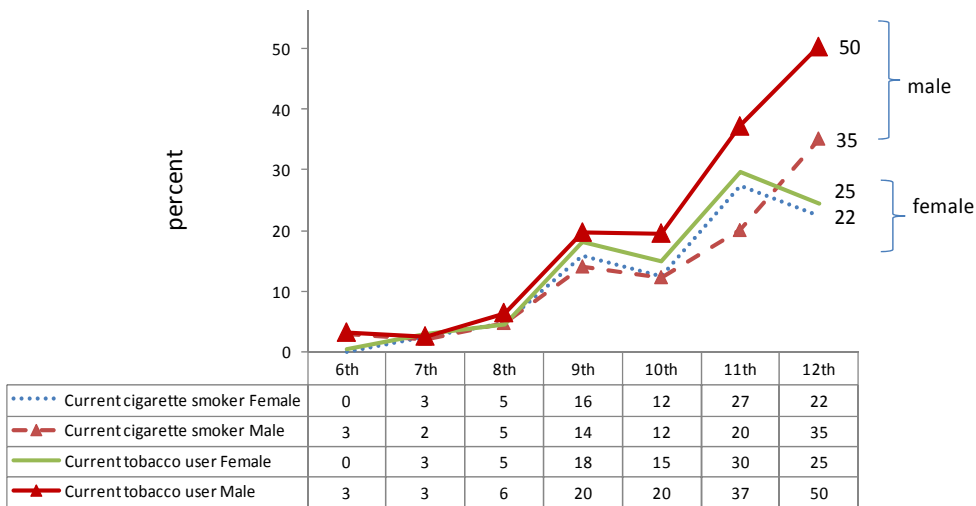


Figure 2.9
Percent of students currently using any tobacco product, by sex and grade-level, 2008



Tobacco use by grade and sex: For both sexes, the overall rate of use of tobacco increased more than 10 fold between the 6th and 12th grade.

In 2008, 50% of males in 12th grade vs. 25% of females in 12th grade reported using some form of tobacco in the past 30 days. This compares with 3% of males in 6th grade and <1% of females in 6th grade currently using tobacco in 2008.

Cigarette smoking peaks in late high school through mid-twenties:

In 2008 in 12th grade, 35% of males and 22% of females reported currently smoking cigarettes (29% of all students in 12th grade). (Among *all high school students* (those in grades 9th through 12th), the rate of current cigarette use was 20% among male and 20% among female students.)

Historically, in looking at Iowans age 18 years of age and older, tobacco use has been highest among those in their late teens and early twenties and lowest among the elderly. In 2008, the Iowa Behavioral Risk Factor Surveillance System (BRFSS, a phone survey of Iowa adults) found that 26% of those 18-24 years of age smoked cigarettes, while only about 5% of those 75 years and older smoked.

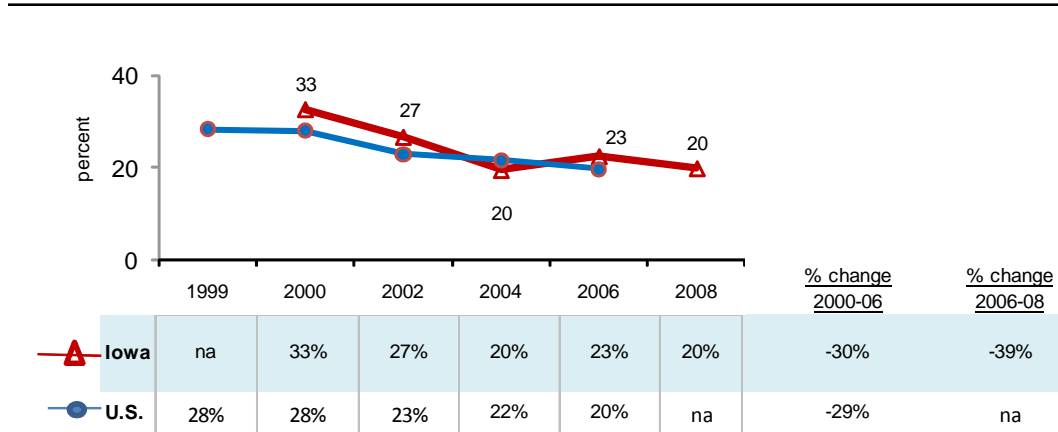
In 2008, the Iowa BRFSS found that 28% of males 18-24 years of age and 23 % of females 18-24 years of age smoked cigarettes.

Number of females and males using tobacco: About 3,600 middle school students (1,400 females and 2,200 males) and 41,000 high school students (16,200 and 24,600 male) currently use some form of tobacco.

Trends in Current Tobacco Use: Iowa YTS vs. National YTS

Figure 2.10

Current cigarette use among high school students, Iowa and U.S. 1999-2008



Percent of Iowa and national high school students using cigarettes on one or more of the past 30 days, 1999-2006 National Youth Tobacco Surveys, CDC; 2000-2008 Iowa Youth Tobacco Surveys, IA Dept. Public Health

The rate of cigarette smoking among high school students in Iowa (23%) was slightly higher than that of high school students nationally (20%) in 2006, the latest year for which data from the national YTS were available. (The National Youth Tobacco Survey (NYTS) was not conducted in 2008, but will be in 2009-2010. The NYTS is the national survey that employs a methodology most similar to the IYTS and therefore yields national rates most comparable to the Iowa rates of the IYTS.)

Among the 13 states (Iowa and 12 others) that used the national Youth Tobacco Survey instrument in 2006 to complete youth surveys, Iowa's rate of current cigarette smoking in high school (22.9%) ranked in the top third of states (4th highest rate of 13 states).

Alabama (26.8%), Kentucky (24.5%) and Indiana (23.9%) had higher rates of current cigarette smoking than Iowa. Rates among the 13 states ranged from 26.8% in Alabama to 15.8% in New Jersey. (Source: *State High School Smoking Rates*, Campaign for Tobacco Free Kids Web site, 2009.)

Section 3

Extent of Any Use of Tobacco in Lifetime (Ever Used Tobacco)

Overall trends in any use of tobacco in lifetime:

Between 2000 and 2008, the proportion of middle school students who had ever used any form of tobacco dropped by 71% (decreasing from 46% to 13%) while the proportion of high school students who had ever used any form of tobacco fell by 27% (decreasing from 67% to 49%).

Middle school lifetime use of cigarettes, cigars and smokeless tobacco falls dramatically:

Among middle school students between 2000 and 2008, the rate of ever having used the three most common forms of tobacco--cigarettes, cigars and smokeless tobacco---each fell by about 75%.

The rate of ever having smoked cigarettes dropped from 39.3% to 10.8%; the rate of ever having smoked cigars fell from 20.6% to 5.1%; and, the rate of ever having used smokeless tobacco fell from 13.8% to 9.6%.

High school lifetime use of most common forms of tobacco also falls substantially:

The proportion of high school student who had ever smoked cigarettes, smoked cigars or used smokeless tobacco also fell significantly, but not as much as for middle school students. The proportion of high school student who had ever smoked cigarettes dropped by 34% (from 63.5% to 41.8%), the proportion that had ever smoked cigars dropped by 26% (from 43.5% to 32.1%) and that ever used smokeless tobacco dropped by 31% (from 27.4 % to 18.9%).

For both sexes, between 2000 and 2008, the rates of ever having used cigarettes, cigars and smokeless tobacco fell substantially, with drops in the middle school rates among both male and female students generally falling much more dramatically than for high school students of the same sex.

(Note: Ever having used cigarettes and cigars is defined as ever having taken even one or two puffs of these forms of tobacco.)

Figure 3.1

Trends in percent of students who ever used tobacco, by product, 2000-2008

middle school--ever used							
	percent					% change	% change
	<u>2000</u>	<u>2002</u>	<u>2004</u>	<u>2006</u>	<u>2008</u>	<u>2000-08</u>	<u>2006-08</u>
Any tobacco product	45.5	36.3	30.7	26	13.3	-71%	-49%
Cigarettes	39.3	28.7	24.1	17	10.8	-73%	-36%
Cigars/little cigars	20.6	10.7	11.9	10.3	5.1	-75%	-50%
Smokeless tobacco	13.8	14.9	8.8	9.6	3.5	-75%	-64%
Ever smoked 100 or more cigarettes ('established smoker')	14	8.4	8.4	9.2	8.6	-39%	-7%

high school--ever used							
	percent					% change	% change
	<u>2000</u>	<u>2002</u>	<u>2004</u>	<u>2006</u>	<u>2008</u>	<u>2000-08</u>	<u>2006-08</u>
Any tobacco product	67.2	65.9	54.5	55.1	48.9	-27%	-11%
Cigarettes	63.5	60.2	47.2	48.1	41.8	-34%	-13%
Cigars/little cigars	43.5	24.2	32.9	34.4	32.1	-26%	-7%
Smokeless tobacco	27.4	41.9	20.3	21.5	18.9	-31%	-12%
Ever smoked 100 or more cigarettes ('established smoker')	37	33.6	28.4	32.9	28	-24%	-15%

Ever used means having tried the product ever in one's life--any use in one's lifetime, even one or two puffs. 2000-2008, Iowa Youth Tobacco Surveys, IA. Dept. Public Health.

Figure 3.2
Trend in the percent of youth ever having used tobacco
by sex and product type, 2000-08

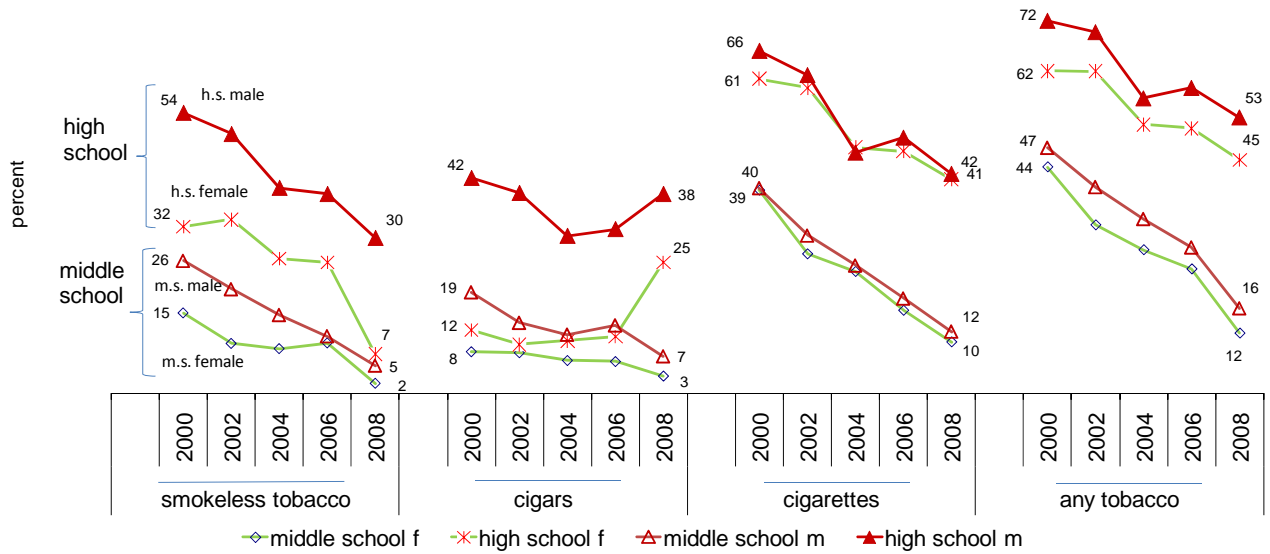


Figure 3.3

**Trends in percent of students who ever used tobacco, by product and sex
2000-2008**

		percent					% change	% change
		<u>2000</u>	<u>2002</u>	<u>2004</u>	<u>2006</u>	<u>2008</u>	<u>2000-08</u>	<u>2006-08</u>
middle school-ever used								
Any tobacco product								
	Female	43.6	32.4	27.6	23.9	11.2	-74%	-53%
	Male	47.4	39.8	33.6	28.1	15.4	-68%	-45%
Cigarettes								
	Female	39.1	26.8	23.4	15.9	9.8	-75%	-38%
	Male	39.6	30.4	24.6	18.2	11.8	-70%	-35%
Cigars/little cigars								
	Female	7.9	7.7	6.2	6	1.8	-77%	-70%
	Male	19.4	13.5	11.2	13	5.2	-73%	-60%
Smokeless tobacco								
	Female	15.4	9.5	8.5	9.6	3.2	-79%	-67%
	Male	25.5	20	15	10.9	7	-73%	-36%

		percent					% change	% change
		<u>2000</u>	<u>2002</u>	<u>2004</u>	<u>2006</u>	<u>2008</u>	<u>2000-08</u>	<u>2006-08</u>
high school-ever used								
Any tobacco product								
	Female	62.2	62.1	51.8	51.1	44.9	-28%	-12%
	Male	71.9	69.7	56.9	58.9	52.7	-27%	-11%
Cigarettes								
	Female	60.7	58.9	47.4	46.7	41.2	-32%	-12%
	Male	66.1	61.4	46.4	49.3	42.3	-36%	-14%
Cigars/little cigars								
	Female	12.1	9.3	10	10.8	7.4	-39%	-31%
	Male	41.5	38.6	30.3	31.6	29.9	-28%	-5%
Smokeless tobacco								
	Female	32.1	33.5	25.9	25.2	1.7	-95%	-93%
	Male	54.1	50	39.6	38.4	16	-70%	-58%

Ever used means having tried the product ever in one's life--any use in one's lifetime, even one or two puffs. 2000-2008, Iowa Youth Tobacco Surveys, IA. Dept. Public Health.

Section 4

Indicators of Addiction: Age of Initiation, Frequency of Use, Brand Loyalty

The Centers for Disease Control and Prevention (CDC) has defined a number of important indicators by which to measure addiction to tobacco. Among them are:

- *Age of initiation*: The younger youth are when they first try tobacco, the more likely they are to continue using tobacco in their late teens and as adults;
- *Preferring/usually smoking only one brand of cigarettes*: Young people who usually smoke just one brand of cigarettes tend to be more established smokers for whom quitting is difficult;
- *Smoking on 20 or more of the past 30 days (frequent smoking)*; and
- *Smoking six or more cigarettes per day (moderate or heavy smoking)*

If a young smoker measures poorly on multiple indicators of addiction they are likely to find quitting much more difficult than those who do not.

(*Preventing Tobacco Use Among Young People: A Report of the Surgeon General*, pp. 45-47, 1994)

Age of First Cigarette (age of initiation)

Students are waiting longer to begin smoking: In 2008, the estimated average (median) age of initiation (age at which a student first smoked a whole cigarette) was 11 for middle school students and close to 14 years old for high school students.

Middle school: In 2008, among middle school students who had ever smoked, 23% first smoked a whole cigarette before age 11, down by 24% from 2000 when 34% first smoked before age 11.

High school: In 2008, among high school students who had ever smoked, 11% first smoked a whole cigarette before age 11, down by more than 20% from 2000 when 14% first smoked before age 11.

Amount and Frequency of Cigarette Smoking

Frequent smoking: frequency decreases among middle school, stable among high school smokers: Between 2000 and 2008, frequent cigarette smoking, that is smoking on 20 or more of the past 30 days, fell by 30% among middle school students who currently smoked cigarettes (21% of smokers were frequent smokers in 2008, 30% were frequent smokers in 2000).

Among current cigarette smokers in high school in 2008, about 43% were frequent smokers, a decrease of only 2% from 2000 when 44% were frequent smokers.

Amount smoked per day: moderate and heavy use down in middle and high school:

Moderate or heavy smoking is defined as smoking six or more cigarettes per day on the days that one smokes. The proportion of current cigarette smokers among middle school students who were moderate to heavy smokers dropped by 52% between 2000 and 2008, from 21% to 10%.

The proportion of current cigarette smokers among high school students who were moderate to heavy smokers dropped by 26% between 2000 and 2008, from 30% to 22%.

Usual Brand, Use of Mentholated Cigarettes

Usual brand: 63% of middle and 89% of high school students smoke a usual brand of cigarettes

In middle school, 62.5% of current smokers usually smoke just one preferred brand of cigarettes: 37.5% have no usual brand.

In *high* school, just 11% of current smokers have no usual brand of cigarettes.

Marlboro is brand most smoked followed by Camel and Newport brands:

The tobacco industry spends an estimated \$174 million promoting tobacco use to lowans each year and studies have shown that young people are twice as susceptible to this pro-tobacco marketing as adults. (Campaign for Tobacco Free Kids, 2010)

Those brands of cigarettes most marketed to youth are the brands youth in both middle and high school are most likely to smoke nationally and in Iowa: Marlboro, Camel and Newport brands. (CDC, MMWR, February 2009)

Middle school: Marlboros most smoked but losing ground: More than half of all current smokers (56%) in middle school usually smoke one of three brands of cigarettes: Marlboro (31%), Camel (15%) or Newport (10%).

Between 2000 and 2008, as preference for Camel cigarettes grew, middle school smokers' use of Marlboro and Newport brands of cigarettes declined by 47% and 28%, respectively.

High school: Marlboros most smoked but losing ground: More than 80% of all current smokers in high school usually smoked one of three brands of cigarettes: Marlboro (55%), Camel (20%) or Newport (7%).

Among high school students, the proportion of current cigarette smokers that usually smoked Camel and Newport cigarettes more than doubled between 2000 and 2008. Their use was up 206% and 347%, respectively.

As preference for Camel and Newport cigarettes grew between 2000 and 2008, high school smoker preferences for Marlboro cigarettes declined by 23%. However, more than half of current smokers in high school students still report that Marlboros are their usual brand.

Use of mentholated cigarettes grows in middle and high school

Middle school: Current cigarette smokers in middle school increasingly chose to smoke mentholated cigarettes between 2000 and 2008. In 2008, almost half of current cigarette smokers usually smoked mentholated cigarettes, an increase of 44% since 2000.

Males and females in middle school are equally likely to usually smoke mentholated cigarettes (48%). Since 2000, this reflects a 32% increase among males and a 61% increase among females in the percent of current smokers who prefer mentholated cigarettes.

High school: Current cigarette smokers in high school also increasingly chose to smoke mentholated cigarettes between 2000 and 2008. In 2008, 47% of current smokers usually smoked mentholated cigarettes, an increase of 138% from the 20% who preferred menthols in 2000.

In high school, 46% of females and 31% of males usually smoked mentholated cigarettes in 2008, an increase of 228% among female and 80% among male current smokers who prefer mentholated cigarettes since 2000.

Figure 4.1

Percent of current cigarette smokers by indicators of addiction, 2008

	middle school	high school
<u>Age of Initiation</u>		
Percent of <i>current and ever</i> smokers who smoked their first whole cigarette before age 11 years (<i>before age 13 years in italics and parentheses</i>)*	22.8% (78.5%)	11.2% (27.5%)
<u>Frequency of use</u>		
On how many days in the past 30 days did you smoke cigarettes?		
1-2 days	34.5%	21.6%
3-5 days	20.7%	15.7%
6-19 days	24.1%	19.6%
more than 20 days (frequent user)	20.7%	43.3%
Total	100%	100%
During the past 30 days, on the days you smoked, how many cigarettes did you smoke per day?		
1 cigarette or less	20.7%	33.0%
2-5 cigarettes	70.0%	44.0%
6-10 cigarettes	3.0%	11.0%
11-20 cigarettes	3.0%	8.0%
more than 20 cigarettes (heavy user)	3.0%	3.4%
Total	100%	100%
Percent of current smokers who smoke six or more cigarettes per day on the days they smoke (moderate to heavy user).	9.9%	21.9%
<u>Brand smoked</u>		
During the past 30 days, what brand of cigarettes did you usually smoke?		
Marlboro	31.1%	54.8%
Camel	15.1%	19.6%
Newport	10.0%	6.7%
some other brand	6.3%	7.5%
do not have a usual brand	37.5%	11.4%
Total	100.0%	100.0%

Current smoking means having smoked a cigarette on one or more of the past 30 days. 2000-2008 Iowa Youth Tobacco Surveys, IA Dept. Public Health.

*This indicator is of all former and current cigarette smokers, all other indicators/variables in this table are of current smokers only.

Figure 4.2
Trends in indicators of addiction, 2000-2008

		middle school							
		percent					% change	% change	
		2000	2002	2004	2006	2008	2000-08	2006-08	
<u>Age of initiation</u>									
Percent of <i>current and ever</i> smokers who smoked their first whole cigarette before age 11 years*		34.0	24.3	21.4	22.9	22.8	-33%	0%	
<u>Frequency of use</u>									
Percent of current smokers who smoked on 20 or more of the past 30 days.		29.7	23.5	6.1	30.6	20.7	-30%	-32%	
Percent of current smokers who smoke six or more cigarettes per day on the days they smoke.		20.6	13.1	12.9	24.1	9.9	-52%	-59%	
<u>Brands/mentholated</u>									
During the past 30 days, what brand of cigarettes did you usually smoke?									
Marlboro		54.8	58.7	48.3	47.8	31.1	-47%	-35%	
Camel		5.6	6.1	8.6	9.5	15.1	170%	59%	
Newport		13.9	9.8	13.4	22.2	10.0	-28%	-55%	
Percent of current smokers who usually smoke menthol cigarettes.									
Female		36.3	49.3	40.1	52.2	48.0	32%	-8%	
Male		29.7	39.3	33.5	39.3	47.7	61%	21%	
Total		33.1	44.4	38.2	47.3	47.8	44%	1%	
		high school							
		percent					% change	% change	
		2000	2002	2004	2006	2008	2000-08	2006-08	
<u>Age of initiation</u>									
Percent of <i>current and ever</i> smokers who smoked their first whole cigarette before age 11 years*		14.0	12.6	16.2	13.9	11.2	-20%	-19%	
<u>Frequency of use</u>									
Percent of current smokers who smoked on 20 or more of the past 30 days.		44.0	26.7	29.1	50.7	43.3	-2%	-15%	
Percent of current smokers who smoke six or more cigarettes per day on the days they smoke.		29.7	32.1	27.7	30.9	21.9	-26%	-29%	
<u>Brands/mentholated</u>									
During the past 30 days, what brand of cigarettes did you usually smoke?									
Marlboro		70.3	59.9	60.8	54.3	54.8	-24%	1%	
Camel		6.4	12.7	16.9	17.1	19.6	206%	15%	
Newport		1.5	11.1	6.7	11.3	6.7	347%	-41%	
Percent of current smokers who usually smoke menthol cigarettes.									
Female		16.6	31.4	34.7	46.3	54.1	226%	17%	
Male		22.1	26.3	29.7	31.4	39.8	80%	27%	
Total		19.8	28.9	32.3	38.9	47.1	138%	21%	

Current smoking using means having smoked a cigarette on one or more of the past 30 days.

2000-2008 Iowa Youth Tobacco Surveys, IA Dept. Public Health.

*This indicator is of all former and current cigarette smokers. All other indicators/variables in this table are of current cigarette smokers only.

Section 5

Characteristics of Susceptible Never Smokers

CDC characterizes susceptible never smokers as those who have never smoked even one or two puffs of a cigarette but who report that they would either take a cigarette if offered to them by their best friend or who think they probably will try a cigarette soon or sometime in the next year.

In 2008, among those who had never smoked, 16% of middle school and 23% of high school students were susceptible never smokers. In 2000, 25% of middle school students and 24% of high school students had been susceptible never smokers.

Figure 5.1

Characteristics of never smokers, susceptible never smokers, 2008		
	middle school	high school
Percent who have never:		
smoked a cigarette--even 1 or 2 puffs	89.2%	58.3%
never a whole cigarette, but have tried smoking	93.6%	66.6%
Percent of students who have never smoked who think they will try a cigarette:		
soon	1.4%	4.0%
not soon, but in the next year definitely	5.0%	23.9%
Percent of students who have never smoked who would definitely or probably take a cigarette if offered by a best friend	4.9%	23.0%
CDC defined 'susceptible never smokers':		
Percent of never smokers(not even 1-2 puffs) who think may try a cigarette in the next year or who would smoke a cigarette if offered by a best friend.	16%	22.6%

2008 Iowa Youth Tobacco Survey, IA Dept. Public Health

Figure 5.2

Trends in susceptible never smokers, 2000-2008

		middle school						
		percent					% change	% change
		<u>2000</u>	<u>2002</u>	<u>2004</u>	<u>2006</u>	<u>2008</u>	<u>2000-08</u>	<u>2006-08</u>
Percent of students who have never smoked, even 1-2 puffs, who are susceptible to smoking cigarettes		24.9%	23.0%	20.4%	18.2%	16.0%	-36%	-12%
		high school						
		percent					% change	% change
		<u>2000</u>	<u>2002</u>	<u>2004</u>	<u>2006</u>	<u>2008</u>	<u>2000-08</u>	<u>2006-08</u>
Percent of students who have never smoked, even 1-2 puffs, who are susceptible to smoking cigarettes		23.7%	47.5%	25.5%	23.6%	22.6%	-5%	-4%

2000 - 2008 Iowa Youth Tobacco Survey, IA Dept. Public Health.

Section 6

Cessation Efforts: Wanting and Trying to Quit

Middle school students: More want to quit, try to quit in 2008 than 2000:

In 2008, of current cigarette smokers in middle school:

- 60% wanted to stop smoking.
- 69% had tried to quit at least once in the last 12 months.
- 39% had tried to quit three times or more in the past 12 months.
- 50% tried to quit but were unable to stay off cigarettes for more than 30 days.

Between 2000 and 2008, the percentage of current cigarettes smokers in middle school who want to quit smoking grew from 46.4% to 59.5%, a 28% increase.

The percent of current smokers in middle school who had tried to quit smoking three or more times fluctuated during this time, not moving consistently upward or downward .

High school students: About half want and try to quit in both 2000 and 2008:

In 2008, of current cigarette smokers in high school:

- 51% wanted to stop smoking.
- 51% had tried to quit at least once in the last 12 months.
- 27% had tried to quit three times or more in the past 12 months.
- 36% tried to quit but were unable to stay off cigarettes for more than 30 days.

Between 2000 and 2008, the percentage of current cigarettes smokers in high school who wanted to quit smoking remained unchanged (51% in 2000 and 51% in 2008).

Between 2000 and 2008, the percent of current cigarettes smokers in high school who had tried to quit three or more times in the last 12 months declined from 57% to 51%.

In 2008, 81% of middle school current smokers thought they could quit smoking if they wanted to. This is compared to 78% of high school students. As smoking frequency increased, the number of times students have attempted to quit also increased.

Figure 6.1

**Percent of current cigarette smokers
by desire to quit and attempts to quit during the past 12 months, 2008**

	middle school	high school
Percent of current smokers who want to stop smoking.		
female	64.9%	54.5%
male	56.2%	47.6%
Total	59.9%	50.5%
Number of times during the past 12 months you stopped smoking for one day or longer because you were trying to quit smoking.		
have not tried to quit	30.8%	48.0%
1 time	20.5%	15.2%
2 times	10.3%	10.2%
3 or more times	38.5%	27.0%
Total	100%	100%
Percent of current smokers that tried to quit at least once in the past 12 months.	68.8%	50.8%
Percent of current smokers who when they tried to quit but stayed off cigarettes for 30 days or less.	49.7%	35.8%

Current smoking means having smoked a cigarette on one or more of the past 30 days.
2000-2008 Iowa Youth Tobacco Surveys, IA Dept. Public Health.

Figure 6.2

**Trends in desire to quit and attempts to quit in the past 12 months
current cigarette smokers, 2000-2008**

	middle school						
	percent					% change 2000-08	% change 2006-08
	2000	2002	2004	2006	2008		
Percent of current smokers who want to stop smoking.	46.4	65.9	42.9	57.5	59.5	28.2%	3.5%
Percent of current smokers who tried to quit at least once in the past 12 months.	na	65.0	64.7	51.7	68.8	na	33.1%

	high school						
	percent					% change 2000-08	% change 2006-08
	2000	2002	2004	2006	2008		
Percent of current smokers who want to stop smoking.	51.4	59.0	50.2	50.2	50.5	-1.8%	0.6%
Percent of current smokers who tried to quit at least once in the past 12 months.	na	56.8	53.9	50.7	50.8	na	0.2%

Current smoking means having smoked a cigarette on one or more of the past 30 days.
2000-2008 Iowa Youth Tobacco Surveys, IA Dept. Public Health. na = not available

Section 7

Cessation Services: Interactions with Health Care Professionals

Research has shown that patients who use tobacco will listen to and follow their health care providers' advice about quitting and that most patients need to hear this advice multiple times before they stop.

In fact, commitment to provide tobacco use screening and brief intervention by physicians, nurses, dentists and other clinicians has been shown to be one of the most cost-effective of all clinical preventive services. It is more cost-effective than many other commonly provided clinical preventive services, including mammography, colon cancer screening, Pap tests, treatment of mild to moderate hypertension, and treatment of high cholesterol. (*Best Practices for Comprehensive Tobacco Control Programs*, CDC, 2007.)

Based on this research, the national **Figure 7.1** in Community Preventive Services in its *Guide to Community Preventive Services* strongly recommends that all practitioners ask all patients about tobacco use, and if a patient uses tobacco, advise them to stop and refer them to cessation services. Effective clinical interventions around patient tobacco use are important not only because of the direct harm to health that tobacco use poses, but also because tobacco may interact with medications and can impede healing or exacerbate symptoms of many health conditions not directly caused by smoking.

Health care professional advice – Few providers ask their patients if they smoke:

Questions covering health care provider counseling on smoking were asked in the IYTS for the first time in 2008. That year, only about one in ten middle school and one in three or four high school students reported that they were asked by a health professional during the past 12 months if they smoked.

High school students slightly more likely than middle school students to be advised not to smoke/to quit but only 30% advised not to smoke:

In 2008, 23% of middle and 29% of high school students were advised by a health care professional not to smoke in the past 12 months.

Section 8

Pro-Tobacco Promotional Products and Messages vs. Anti-Tobacco Messages

It is estimated that of the \$13.4 billion annual marketing expenditures the tobacco industry spends nationwide, \$176.0 million is estimated to be spent in Iowa each year—or about \$482,000 every day to market tobacco to Iowans.

In 2008, if the Iowa Department of Public Health had spent its entire tobacco use prevention control budget of \$13.4 million on advertising, and none on direct services for cessation, prevention and education, the state's anti-tobacco advertising expenditures per diem would only come to \$36,700, less than 8% of what the tobacco industry spends promoting tobacco every day in Iowa.

Pro-tobacco ads have deep penetration among youth :

In 2008, 72% of middle school and 87% of high school youth reported that when they watch movies or TV or use the Internet that they see ads promoting tobacco some or most of the time. These rates are down slightly from 2000 when 88% of middle school students and 93% of high school students reported seeing pro-tobacco advertising some or most of the time when at the movies, watching TV or using the Internet.

Youth who are current tobacco users are especially receptive to pro-tobacco advertising compared to youth who have never used tobacco:

Between 2000 and 2008, the openness of both middle and high school youth to wearing, using, buying or receiving items with a pro-tobacco message on them dropped substantially.

Nevertheless, youth who currently use tobacco remain especially receptive to pro-tobacco advertising and promotions compared to those who have never smoked. In 2008, 34% of middle school students who currently used tobacco were receptive to pro-tobacco advertising, when only 1% of never smokers in middle school were receptive.

In 2008, 24% of high school students who currently used tobacco were receptive to pro-tobacco advertising, when only 2% of never smokers in high school were receptive.

Both students in middle and high school are less likely to hear or see anti-tobacco media messages than pro-tobacco media messages.

In 2008, 63% of students in middle school and 78% of students in high school saw or heard, during the past 30 days, commercials about the dangers of smoking. This is 10% and 13% less, respectively, than the percent in middle and high school that saw or heard anti-tobacco messages in 2000.

Figure 8.1

Trends in exposure to pro-tobacco advertising, 2000-2008

	middle school							
	percent					% change 2000-08	% change 2006-08	
	2000	2002	2004	2006	2008			
Percent of all students who when watch TV, use the Internet or go to movies to see ads for tobacco products some or most of the time.	88.0	85.9	78.0	76.4	71.8	-18%	-6%	
Percent, in the past 12 months, who have bought or received anything with a tobacco company name or picture on it who are:								
current tobacco users	50.1	42.3	41.6	41.9	43.8	-13%	5%	
never users	12.9	16.1	10.0	8.0	4.8	-63%	-40%	
Percent who would wear or use anything with a tobacco company name or picture on it:								
current tobacco users	65.4	58.6	57.8	55.6	61.0	-7%	10%	
never users	16.2	12.6	12.6	10.3	7.5	-54%	-27%	
Percent who are receptive to tobacco advertising:								
current tobacco users	39.2	29.4	28.8	27.7	34.1	-13%	23%	
never users	4.1	3.4	2.2	2.4	1.3	-68%	-46%	
	high school							
	percent					% change 2000-08	% change 2006-08	
	2000	2002	2004	2006	2008			
Percent of all students who when watch TV, use the Internet or go to movies see ads for tobacco products some or most of the time.	93.2	88.6	88.5	85.0	87.0	-7%	2%	
Percent, in the past 12 months, who have bought or received anything with a tobacco company name or picture on it who are:								
current tobacco users	42.0	40.7	33.2	36.8	32.3	-23%	-12%	
never users	13.7	10.4	11.3	7.5	4.2	-69%	-44%	
Percent who would wear or use anything with a tobacco company name or picture on it:								
current tobacco users	67.2	67.9	62.5	61.8	59.7	-11%	-3%	
never users	21.2	16.5	19.1	15.8	14.6	-31%	-8%	
Percent who are receptive to tobacco advertising:								
current tobacco users	34.5	29.5	22.9	27.9	23.9	-31%	-14%	
never users	5.8	3.8	3.9	2.9	1.8	-69%	-38%	

2000 - 2008 Iowa Youth Tobacco Survey, IA Dept of Public Health

Figure 8.2

Trends in exposure to anti-tobacco media messages, 2000-2008

	middle school						
	percent					% change	% change
	<u>2000</u>	<u>2002</u>	<u>2004</u>	<u>2006</u>	<u>2008</u>	<u>2000-08</u>	<u>2006-08</u>
Percent of all students who saw or heard commercials about dangers of smoking in past 30 days	80.0	91.0	79.0	73.0	63.0	-21%	-14%
	high school						
	percent					% change	% change
	<u>2000</u>	<u>2002</u>	<u>2004</u>	<u>2006</u>	<u>2008</u>	<u>2000-08</u>	<u>2006-08</u>
Percent of all students who saw or heard commercials about dangers of smoking in past 30 days	87.0	93.0	87.0	84.0	78.0	-10%	-8%

2000-2008 Iowa Youth Tobacco Surveys, IA Dept. Public Health

Section 9

JEL and Anti-Tobacco Messages at School

JEL

At the heart of the IDPH Division of Tobacco Use Prevention and Control's youth smoking prevention and cessation effort is the statewide, youth-led Just Eliminate Lies (JEL) intervention.

The intervention has entailed the formation of dozens of JEL chapters in high schools across the state. Students in JEL organize and attend school, community and statewide events and work with the media to support tobacco use prevention and cessation messages and services. JEL youth also work with community and state leaders to support policies that help to lower rates of addiction to tobacco in middle and high schools.

JEL loses some reach, but still highly effective:

In 2008, middle and high school students were less likely to have seen or heard of JEL than in past years: 30% of middle school and 61% of high school students reported having ever heard or seen anything about JEL in the past year, down from 79% and 85%, respectively in 2002.

However, among those who have heard of JEL, students continue to report finding that JEL is convincing (91% of middle and 85% of high school students), informative (78% of middles and 62% of high school students) and key to changing their attitudes about tobacco (76% of middle and 56% of high school students).

The use of tobacco on school property remains low, less than one percent of middle school students and 7% of high school students have smoked cigarettes on school property in the past 30 days.

Smokeless tobacco use on school property is low as well. Less than one percent of middle school students have used smokeless tobacco on school property in the last 30 days. The rate for high school students is somewhat higher at 4%.

Figure 9.1

Trends in knowledge, attitudes about JEL, 2002-2008

Percent that has:	middle school					
	percent				% change	% change
	2002	2004	2006	2008	2002-08	2006-08
seen or heard of JEL	78.9	53.8	36.7	30.3	-62%	-17%
agrees JEL is convincing	91.1	87.4	88.4	88.8	-3%	1%
agrees JEL gets message across	91.7	89.2	87.8	88.8	-3%	1%
learned a lot from JEL	78.3	71.4	69.7	61.0	-22%	-13%
finds JEL has changed their attitude about tobacco	76.3	73.0	76.0	69.6	-9%	-8%
Percent that has:	high school					
	percent				% change	% change
	2002	2004	2006	2008	2002-08	2006-08
seen or heard of JEL	85.3	84.6	72.9	61.2	-28%	-16%
agrees JEL is convincing	84.7	86.9	84.2	84.8	0%	1%
agrees JEL gets message across	84.4	87.4	84.3	83.2	-1%	-1%
learned a lot from JEL	61.8	61.9	61.7	55.1	-11%	-11%
finds JEL has changed their attitude about tobacco	56.1	60.7	59.8	52.0	-7%	-13%

2002-2008 Iowa Youth Tobacco Surveys, IA Dept. of Public Health

Figure 9.2

Trends in school curriculum and anti-tobacco community activities, 2000-2008

	middle school					% change 2000-08	% change 2006-08
	percent						
	2000	2002	2004	2006	2008		
Percent of all students who at school this year:							
were taught in school about the dangers of tobacco	na	na	na	na	50.6%	na	na
practiced ways in school to say NO to tobacco use	45.3%	41.8%	37.0%	38.9%	32.0%	-29%	-18%
Participated in community anti-tobacco activities in the past 12 months	30.6%	29.3%	28.3%	29.6%	26.4%	-14%	-11%

	high school					% change 2000-08	% change 2006-08
	percent						
	2000	2002	2004	2006	2008		
Percent of all students who at school this year:							
were taught in school about the dangers of tobacco	na	na	na	na	35.5%	na	na
practiced ways in school to say NO to tobacco use	12.6%	14.8%	12.5%	12.2%	13.2%	5%	8%
Participated in community anti-tobacco activities in the past 12 months	14.2%	16.2%	15.8%	14.2%	12.9%	-9%	-9%

2000-2008 Iowa Youth Tobacco Surveys, IA Dept. Public Health na = not available

Figure 9.3

Trends in perceptions of JEL, all middle school students 2002-2008

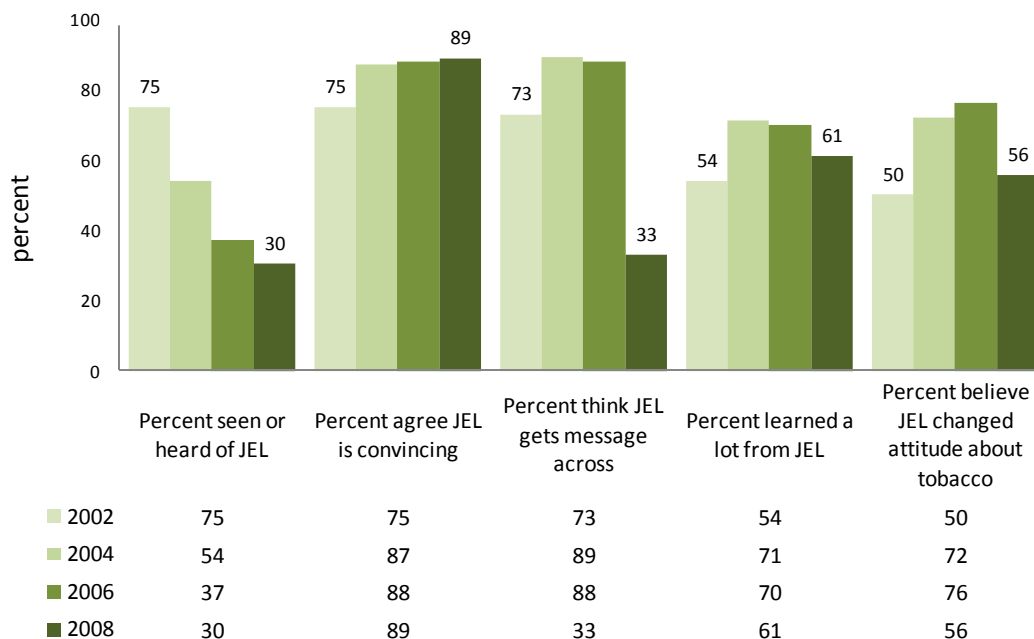
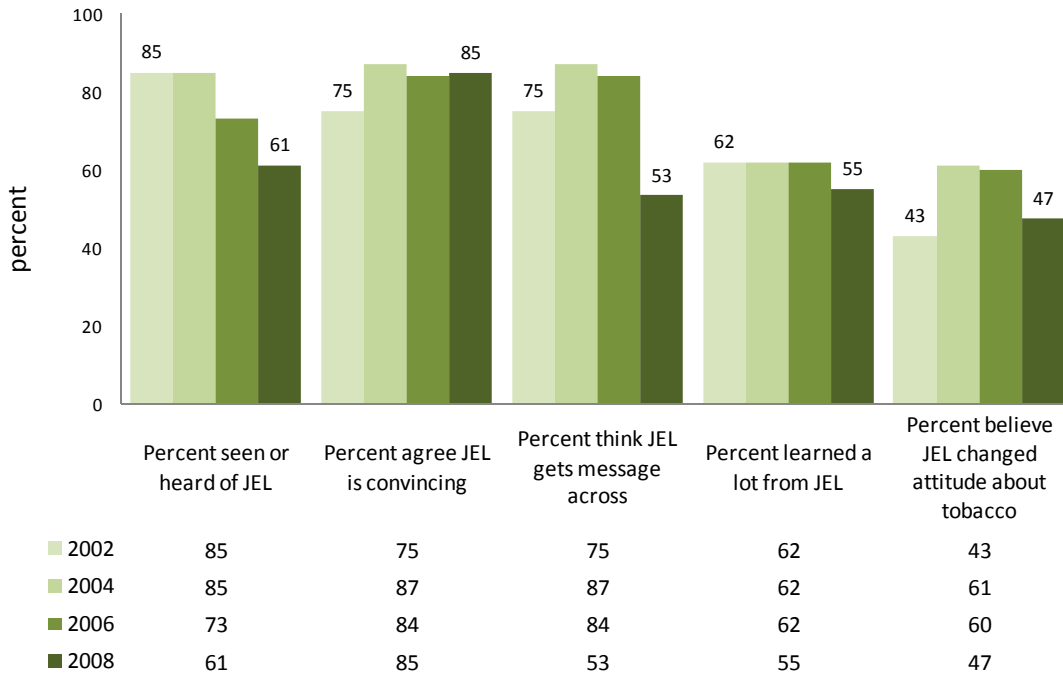


Figure 9.4
Trends in perceptions of JEL, all high school students
2002-2008



Section 10

Use of Tobacco on School Property

Cigarette and smokeless tobacco use on school property, which was low to begin with, has dropped dramatically in middle school and less dramatically, but substantially, in high school: In 2008, middle and high school students were less likely to use both cigarettes and smokeless tobacco on school property than they were in 2000.

In middle school in 2008, use of both cigarettes and smokeless tobacco on school property during the past 30 days was reported by less than 1% of all students. Use on school property of these two forms of tobacco declined more than 80% between 2000 and 2008.

In high school in 2008, use of cigarettes during the past 30 days on school property was reported by 7% of students (down 34% from 11% in 2000), while use of smokeless tobacco on school property was reported by 4% (down 18% from 5% in 2000).

Figure 10.1

Trends in current tobacco use on school property, 2000-2008

	middle school						
	percent					% change 2000-08	% change 2006-08
	2000	2002	2004	2006	2008		
Percent smoked cigarettes on school property in the past 30 days	3.8	2.3	2.2	1.5	0.0	-87%	-67%
Percent used smokeless tobacco on school property in the past 30 days	2.1	0.8	1.6	1.3	0.0	-81%	-69%
	high school						
	percent					% change 2000-08	% change 2006-08
	2000	2002	2004	2006	2008		
Percent smoked cigarettes on school property in the past 30 days	10.5	10.1	6.7	8.7	0.1	-34%	-21%
Percent used smokeless tobacco on school property in the past 30 days	5.1	3.9	4.8	5.4	0.0	-18%	-22%

2000-2008 Iowa Youth Tobacco Surveys, IA Dept. Public Health.

Section 11

Anti-Tobacco Rules and Messages at Home and Work

Anti-Tobacco Rules at Home and Work

Rules at home: About 75% of middle and high school students live in homes where smoking is never allowed

In 2008, middle and high school students were less likely to use both cigarettes and smokeless tobacco on school property than they were in 2000.

In middle school in 2008, 67% of students reported that smoking was not allowed inside the vehicle in which they rode the most; in high school, 59% of students reported smoking was banned from their usual vehicle.

Rules at work: Smoking allowed despite ban:

Despite passage in 2008 of the Iowa Smokefree Air Act, which bans smoking in virtually all workplaces and public indoor space, almost 30% of middle school and almost 45% of high school students reported that smoking was always or sometimes allowed at their place of work in 2008-2009. (This survey was completed within a few months of enactment of the law. Reported smoking in the workplace might be lower if asked at a later time.)

Figure 11.1

Rules about smoking at home, in vehicles and at work, 2008

	<u>middle school</u>	<u>high school</u>
What best describes the rules about smoking inside the <i>house</i> where you live?		
never allowed	74.0%	74.9%
sometimes allowed	15.4%	11.6%
always allowed	<u>10.7%</u>	<u>13.5%</u>
	100%	100%
What best describes the rules about smoking inside the <i>vehicle</i> you drive or ride in the most?		
never allowed	66.6%	58.5%
sometimes allowed	18.7%	20.8%
always allowed	<u>14.7%</u>	<u>20.6%</u>
	100%	100%
What best describes the rules about smoking <i>where you work</i> ?		
never allowed	73.4%	55.8%
sometimes allowed	18.0%	36.2%
always allowed	<u>10.0%</u>	<u>8.0%</u>
	100%	100%

2008 Iowa Youth Tobacco Survey, IA. Dept. Public Health

Figure 11.2

***Beliefs* about never allowing smoking at work and in public places, 2008**

	<u>middle school</u>	<u>high school</u>
Percent who agree that people should never allow smoking:		
...inside their home	na	na
...in their vehicles	na	na
...indoors at work	88.8%	75.6%
...in public places like malls, restaurants, bars	86.1%	79.3%

2008 Iowa Youth Tobacco Survey, IA. Dept. Public Health na = not available

Parental Involvement

Most parents discuss dangers of smoking with their students:

In middle school in 2008, 70% of students reported that their parents had discussed the dangers of tobacco use with them at least once during the past 12 months.

In high school in 2008, 62% of students reported that their parents had discussed the dangers of tobacco use with them at least once during the past 12 months.

Half of all students who smoke cigarettes say their parents are not aware that they smoke: In 2008, 49% of current cigarette smokers in middle school and 52% of current cigarette smokers in high school students had parents who were not aware of their smoking.

Figure 11.3

Parental involvement in student's smoking behavior, by smoking status, 2008

	middle school			high school		
	current smoker	never smoked	All students	current smoker	never smoked	All students
In the past 12 months, how often have your parents or guardians discussed the dangers of tobacco use with you?						
never	30.0%	na	30.7%	39.5%	na	40.7%
rarely			24.0%			27.5%
sometimes			27.7%			22.6%
often			11.8%			6.0%
very often	0.0%		5.7%			3.2%
total	100%		100%	100%		100%
Parents have discussed dangers of tobacco at least once in the past 12 months.	70.0%			61.5%		
Do your parents know that you smoke cigarettes?		na	na		na	na
yes	15.7%			33.5%		
no	48.6%			52.0%		
not sure	35.7%			11.4%		
total	100%			100%		

Percent of Iowa middle and high school students whose parents counsel them about smoking, know that they smoke, by smoking status, 2008 Iowa Youth Tobacco Survey, IA. Dept. Public Health.

Section 12

Peer Environment: Friends who Smoke

Tobacco use begins for 90% of cigarette smokers before the age of 18 years. The younger youth are when they first use tobacco products, the more likely and longer they are to use tobacco as adults. A number of factors contribute to youth initiation and continued use of tobacco. Family, peer, and broader cultural messages about the acceptability and desirability of tobacco use, tobacco industry marketing efforts aimed directly at youth, the price of tobacco products, policies limiting access to tobacco as well as genetic susceptibility, and cognitive developmental immaturity are all important.

Friends play an important role as youth try to fit in socially inside and outside of school. Data from national surveys consistently show that youth who have three or more friends who smoke are ten times more likely to smoke than youth who report that none of their friends smoke. (1)

Friends who smoke in 2008: Among middle school students, 87% of current cigarette smokers report that one or more of their four closest friends smoke, while only 11% of never smokers report having a smoker among their four closest friends.

Among high school students, 93% of current smokers report that one or more of their four closest friends smoke, while 29% of high school students who have never smoked cigarettes report having a friend who smokes among their four closest friends.

Figure 12.1

Percent with friends who are cigarette smokers, by student smoking status, 2008

	middle school			high school		
	current smoker	never smoked	total	current smoker	never smoked	total
How many of your four closest friends smoke cigarettes?						
none	14.4%	89.6%	84.7%	7.0%	71.0%	51.9%
1			4.3%			14.7%
2			2.1%			10.5%
3			1.3%			6.3%
4			1.7%			10.0%
not sure			5.8%			6.5%
total			100%			100%
Percent of students with one or more of their four closest friends who smoke cigarettes	85.6%	11.4%	15.3%	93.0%	29.0%	49.1%

Current smoking means having smoked a cigarette on one or more of the past 30 days.
2000-2008 Iowa Youth Tobacco Surveys, IA Dept. Public Health.

Figure 12.2

Trends in number of friends who smoke, by smoking status, 2000-2008

	middle school						% change 2002-08	% change 2006-08
	2000	2002	percent 2004	2006	2008			
Percent of students with one or more of their four closest friends who smoke cigarettes								
current cigarette smoker	na	82.8	81.3	91.3	85.6	3%	-6%	
never cigarette smoker	na	18.7	16.6	11.9	11.4	-39%	-4%	
	high school						% change 2002-08	% change 2006-08
	2000	2002	percent 2004	2006	2008			
Percent of students with one or more of their four closest friends who smoke cigarettes								
current cigarette smoker	na	95.1	90.1	88.6	93.0	-2%	5%	
never cigarette smoker	na	37.2	26.3	25.4	29.0	-22%	14%	

Current smoking means having smoked a cigarette on one or more of the past 30 days.
2000-2008 Iowa Youth Tobacco Surveys, IA Dept. Public Health.

Section 13

Friends and Social Environment:

Beliefs about the Social Advantages/Disadvantages of Smoking

Smokers were more likely to believe than never smokers that smoking renders social advantage with their peers.

Among current smokers in middle school, 39% believed that those who smoke have more friends, while only 8% of never smokers in middle school believed so. In high school, 33% of current smokers believed that smokers have more friends, while only 10% of never smokers in high school believed that smokers have more friends.

Among current smokers in middle school, 31% believed that smoking makes one cool or fit in. while only 4% of never smokers in middle school believed so. In high school, 21% of current smokers believed that smoking makes one cool or fit in, while only 7% of never smokers in high school believed that smokers look cool or better fit in.

Figure 13.1

**Attitudes and beliefs about the social advantages/disadvantages of tobacco use
by smoking status, 2008**

	middle school			high school		
	current smoker	never smoked	all students	current smoker	never smoked	all students
Do you think young people who smoke cigarettes have more friends?						
definitely or probably yes	39.3%	8.1%	10.5%	33.0%	10.5%	17.0%
definitely or probably not	60.7%	91.9%	89.5%	67.0%	89.5%	83.0%
Do you think smoking cigarettes makes young people look cool or fit it?						
definitely or probably yes	30.9%	3.8%	5.5%	21.2%	6.8%	10.7%
definitely or probably not	69.1%	96.2%	94.5%	78.8%	93.2%	89.3%

2008 Iowa Youth Tobacco Survey, IA. Dept. Public Health.

Section 14

Access to Tobacco among Underage Smokers

Persons less than 18 years of age may not legally buy tobacco products in Iowa. Current smokers in middle and high school most commonly acquired their cigarettes by giving money to someone else to purchase cigarettes for them or by borrowing cigarettes from a friend or family member.

No current cigarette smoker in middle school reported acquiring their cigarettes by directly purchasing cigarettes from a retail outlet. Only 6% of underage high school smokers reported acquiring their cigarettes illegally by purchasing them from a store.

Figure 14.1

**Percent of current smokers under 18 years of age
by usual method of obtaining cigarettes, 2008**

	middle school	high school
During the past 30 days, how did you usually get your own cigarettes?		
Social sources:		
gave someone else money to buy	30.7%	43.9%
borrowed or bummed them from someone else	25.3%	30.7%
person 18 or older gave them to me	8.1%	8.1%
Direct purchase:		
bought them in a store (convenience store, gas station, etc.)	0%	5.5%
bought them from a vending machine	0%	0%
Other sources:		
took them from a store or family member	17.5%	3.8%
got them in some other way	<u>18.4%</u>	<u>8.0%</u>
Total	100%	100%

2008 Iowa Youth Tobacco Survey, IA. Dept. Public Health.

Section 15A

Secondhand Smoke Exposure

Secondhand smoke, also known as environmental tobacco smoke (ETS), is a complex mixture of gases and particles that comes from the tips of burning cigarettes, cigars and pipes (sidestream smoke) and from smokers exhaled smoke (exhaled 'mainstream' smoke).¹ Secondhand smoke contains more than 250 chemicals known to be toxic, including at least 50 that can cause cancer. Secondhand smoke is classified by the U.S. Environmental Protection Agency as a known Class A human carcinogen.

The most recent Office of the U.S. Surgeon General's report states that there is no risk-free level of secondhand smoke exposure. It causes heart disease and lung cancer and other respiratory illness in nonsmoking adults.² Secondhand smoke is harmful to young children, causing lower respiratory tract infections in children under 18 months of age and is responsible for hundreds of cases of sudden infant death syndrome (SIDS) deaths in the United States each year.

Studies of the levels of secondhand smoke in restaurants and bars where smoking is allowed has found smoke levels to be 2 to 5 times higher than in residences with smokers and 2 to 6 times higher than in office workplaces where smoking is allowed. Research has shown that workplace productivity increases and absenteeism decreases when fewer workers smoke.

About half of all states, including Iowa, have passed Smoke-Free Air Acts, laws that prohibit smoking in virtually all public places and workplaces, including restaurants and bars. In Iowa, smoking is still allowed in casinos.

(Sources for above information: American Lung Association Web site, 2009, CDC Smoking and Health Web site, 2009).

Youth who smoke more likely to be exposed to secondhand smoke than are youth who have never smoked:

Among current smokers in middle school, 92% were in the same room as another smoker in the past 7 days, while 37% of never smokers in middle school were in the same room as a smoker. In high school, 91% of current smokers were in the same room as another smoker in the past 7 days, while 41% of never smokers in high school were in the same room as a smoker.

Despite passage of Iowa Smokefree Air Act, youth report smoking allowed at work:

Among middle school students who work 28% reported that they breathed the smoke of others at work in the past seven days. Among high school students who work, 30% reported breathing the smoke of others at work during the past seven days.

Figure 15.1

Percent of all students exposed to secondhand smoke, by smoking status, 2008

	middle school			high school		
	current smoker	never smoked	Total	current smoker	never smoked	Total
During the past 7 days...						
On one or more days, were you in the same room with someone who was smoking cigarettes.	91.7%	36.8%	39.9%	91.0%	41.2%	59.5%
On one or more days, student was in a car with someone who was smoking cigarettes.	83.3%	27.6%	32.0%	84.3%	28.3%	44.4%
On one or more days breathed smoke from someone who was smoking where you work.	na	na	27.9%	na	na	30.0%

Current smoking means having smoked a cigarette on one or more of the past 30 days.
2000-2008 Iowa Youth Tobacco Surveys, IA Dept. Public Health.

Figure 15.2

Trends in secondhand smoke exposure, 2000-2008

	middle school						
	percent					% change 2000-08	% change 2006-08
	2000	2002	2004	2006	2008		
During the past 7 days...							
Percent of all students that were in a car with someone who was smoking cigarettes.	49.7	46.9	41.5	39.1	39.9	-20%	2%
Percent of all students that were in a room with someone who was smoking cigarettes.	61.2	58.3	52.2	49.8	32.0	-48%	-36%
Percent who breathed smoke from someone who was smoking where student works.	na	na	na	na	27.9	na	na

	high school						
	percent					% change 2000-08	% change 2006-08
	2000	2002	2004	2006	2008		
During the past 7 days...							
Percent of all students that were in a car with someone who was smoking cigarettes.	56.6	71.5	45.9	47.9	44.4	-22%	-7%
Percent of all students that were in a room with someone who was smoking cigarettes.	76.7	53.0	65.8	64.4	56.5	-26%	-12%
Percent who breathed smoke from someone who was smoking where student works.	na	na	na	na	30.0	na	na

Current smoking means having smoked a cigarette on one or more of the past 30 days.
2000-2008 Iowa Youth Tobacco Surveys, IA Dept. Public Health.

Section 15B

Beliefs and Attitudes about Harmfulness of Smoking and Secondhand Smoke

Smoker or not, middle and high school students overwhelmingly believed that secondhand smoke and even light cigarette smoking is harmful to one's health.

However, current smokers in both middle and high school were somewhat less likely than were never smokers to believe so.

In middle school 95% of never smokers and 89% of current smokers believed that secondhand smoke was harmful to one's health. In high school, 97% of never smokers and 85% of current smokers believed that secondhand smoke was harmful.

Light smoking (one to five cigarettes per day) was seen as harmful by 93% of middle school never smokers and 82% of middle school smokers. In high school, 96% of never smokers and 88% of current smokers believed that light smoking was harmful.

Figure 15B.1

Beliefs about the harmfulness of secondhand smoke, by smoking status, 2008

	middle school			high school		
	current smoker	never smoked	Total	current smoker	never smoked	Total
Do you think that smoke from other people's cigarettes is harmful to you?						
definitely or probably yes	88.9%	94.7%	93.5%	84.7%	96.6%	93.0%
definitely or probably not	11.1%	5.3%	6.5%	15.3%	3.4%	7.0%
Do you think young people risk harming themselves if they smoke between 1 and 5 cigarettes per day?						
definitely or probably yes	81.6%	93.4%	92.6%	88.2%	95.7%	93.7%
definitely or probably not	18.4%	6.6%	7.4%	11.8%	4.3%	6.3%

Percent of Iowa middle and high school students by smoking status who believe secondhand smoke is harmful/not harmful, 2008 Iowa Youth Tobacco Survey, IA. Dept. Public Health

Discussion and Implications

It is widely known that between 80% and 90% of cigarette smokers first start to smoke when they are in middle or high school. With this knowledge, during the past ten years, in Iowa and across the nation, substantial public health resources have been directed at reducing tobacco use initiation among youth and helping youth who are addicted to tobacco to quit. Often these public health efforts have been met with resistance from the tobacco industry and with increased pro-tobacco counter-marketing--marketing specifically directed at encouraging tobacco use among middle and high school youth.

The resources that the tobacco-industry spends on pro-tobacco messages aimed at youth have always exceeded the capacity of public health advocates to match. Nevertheless, efforts to reduce cigarette smoking among Iowa youth during the past ten years have met with remarkable success.

In middle school between 2000 and 2008, cigarette smoking dropped from 12% to just 3%, a 76% decrease. In high school during those eight years, cigarette smoking dropped from 33% to 20%, a decline of 40%.

Among middle school students the rate of use of smokeless tobacco and cigarettes declined almost 80% between 2000 and 2008, while among high school students, smokeless tobacco use declined 13%.

However, not all students have been reached equally by recent public health efforts. High school males' use of smokeless tobacco remains virtually unchanged at 16% and now rivals cigarette use in that cohort. Among students who do smoke, trends do not indicate a steady decline in the number who are heavy or frequent cigarette smokers. In 2008, 43% of high school student smokers were frequent smokers (smoked on 20 of the past 30 days), virtually the same percentage as were smokers in 2000. The reach of certain anti-tobacco media messages has declined during the past eight years. And, at least 45,000 Iowa youth continue to use tobacco.

Marketing to youth of mentholated cigarettes has resulted in youth smokers increasingly using Newport and other mentholated cigarettes. Mentholated cigarettes are no safer at best, and according to some research, much less safe than non-mentholated cigarettes as smokers tend to inhale more deeply when smoking them.

For the success of public health efforts of these past ten years to continue and grow, interventions that prevent and discourage youth from starting to use tobacco and that help them stop once they have become addicted must continue. The multi-level interventions of enforcing strict public policy on youth access to tobacco, increased tobacco taxes, youth-led youth anti-tobacco campaigns, mass media counter-marketing, local community anti-tobacco campaigns as well as the increased availability of cessation counseling and medications all must continue if the successes of the past decade are not to be lost and goals to reduce further tobacco use among Iowa youth are to be met.

References

Campaign for Tobacco Free Kids, *The Toll of Tobacco in Iowa*, Web site:

<http://www.tobaccofreekids.org/reports/settlements/toll.php?StateID=IA> , 2010.

Centers for Disease Control and Prevention, *Best Practices for Comprehensive Tobacco Control Programs -2007*. Atlanta, GA: USDHHS, CDC, Office on Smoking and Health, October 2007.

Centers for Disease Control and Prevention, *Cigarette Brand Preference Among Middle and High School Students who are Established Smokers*, MMWR 2009, 58, pp. 112-115, USDHHS, CDC, Office on Smoking and Health, Atlanta, GA: USDHHA, CDC, Office on Smoking and Health, 2000, 2002, 2004, 2006, 2008.

Centers for Disease Control and Prevention, *Iowa Youth Tobacco Survey Frequency and Preferred Tables, Iowa Youth Tobacco Survey*, Atlanta, GA: USDHHA, CDC, Office on Smoking and Health, 2000, 2002, 2004, 2006, 2008.

Fiore MC, Jaén CR, Baker TB, et al. *Treating Tobacco Use and Dependence: 2008 Update*. Clinical Practice Guideline. Rockville, MD. U.S. Department of Health and Human Services. Public Health Service. May 2008.

Iowa Department of Public Health, 2006 *Iowa Youth Tobacco Survey: Full Document Summary*, Shepherd D, Center for Health Statistics, Iowa Dept. of Public Health, 2007.

Starr G, Rogers T, Schooley M, Porter S, Wiesen E, Jamison N. *Key Outcome Indicators for Evaluating Comprehensive Tobacco Control Programs*, Atlanta, GA: USDHHS, Centers for Disease Control and Prevention, 2005.

Teens and Tobacco in Minnesota: The View from 2008, Results from the Minnesota Youth Tobacco and Asthma Survey, Center for Health Statistics, Division of Health Policy, Minnesota Department of Health, December 2008

U.S. Department of Health and Human Services. *Preventing Tobacco Use Among Young People: A Report of the Surgeon General*. Atlanta, GA, U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 1994.

U.S. Department of Health and Human Services. *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*. Atlanta, GA, U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2006.

ABOUT THIS REPORT:

The *Iowa Youth Tobacco Survey Full Report: 2000-2008* was published by the Iowa Department of Public Health, Division of Tobacco Use Prevention and Control and Center for Health Statistics :

Iowa Department of Public Health (IDPH) Director:
Tom, Newton

Division of Tobacco Use Prevention and Control, Director
Bonnie Mapes (BMapes@idph.state.ia.us)

The 18-member Iowa Tobacco Control Commission is the policy setting board for the IDPH Division of Tobacco Use Prevention and Control.

Iowa Tobacco Control Commission Members, 2008-2009:

Non-Voting members:

Gary Kendell, Governor's Off. Drug Control Policy
Julie Pottorff, Office of Attorney General
Elizabeth Calhoun, IA Dept. of Education
Dennis Janssen, IA Dept. of Human Services
Lynn Walding, IA Alcoholic Beverages Div.
Matt Gannon, Office of Attorney General
Senator David Hartsuch, IA General Assembly
Senator Herman Quirnbach, IA General Assembly
Representative Lisa K. Heddens, IA General
Assembly

Voting members:

Cathy Callaway, Commission Chair, American
Cancer Society
Christopher Squier, DDS, University of Iowa
Gary J. Streit, Attorney, Cedar Rapids
Nora Kurtovic, Nonprofit representative
Bob Russell, DDS, IDPH
Timothy Hungerford, Law enforcement,
Marshalltown
Aaron Swailes, JEL president
CJ Petersen, JEL past president
Alisa Holverson, JEL member
Jenna Zimmer, JEL member

Report written and prepared by:

Joann Muldoon, M.S., M.A, Center for Health Statistics, IDPH, epidemiologist for the Division of Tobacco Use Prevention and Control (JMuldoon@idph.state.ia.us)

With assistance from Jen Thorud, M.P.H., Maternal & Child Health Program intern epidemiologist

Layout design: Josh Jungling, Brent Saron and Joann Muldoon, IDPH, and Tobacco program, MN Dept of Health

Data collection in the schools/field work: Maggie O'Rourke, IDPH, and the Center for Social and Behavioral Research, University of Northern Iowa

How to obtain copies of this report:

This report, its executive summary and a slide show based on this report are available for printing and downloading from the Web site of the Division of Tobacco Use Prevention and Control, IDPH: <http://www.idph.state.ia.us/tobacco/default.asp> . Individual charts/ tables from the pdf version of this report that is posted on the Web can be copied by opening the report using the free Adobe Reader software and clicking on: Tools/Select and Zoom/Snapshot Tool.

Source citation to use for this report:

Muldoon J, Thorud J, Iowa Department of Public Health, *Iowa Youth Tobacco Survey Full Report: 2000-2008*, Center for Health Statistics and Div. of Tobacco Use Prevention and Control, IDPH, October 2009.