Healthy People 2020: Who’s Leading the Leading Health Indicators?
Khristen Flennoy, MPH, MA
Office of Disease Prevention and Health Promotion,
U.S. Department of Health and Human Services
Who’s Leading the Leading Health Indicators?

• **Leading Health Indicators are:**
  - Critical health issues that, if addressed appropriately, will dramatically reduce the leading causes of preventable deaths and illnesses
  - Linked to specific Healthy People objectives
  - Intended to motivate action to improve the health of the entire population

1200 Healthy People objectives

LHIs are a subset of Healthy People objectives
Who’s Leading the Leading Health Indicators?

**Featured Speakers:**

- **Carter Blakey** – Deputy Director, Office of Disease Prevention and Health Promotion, U.S. Department of Health and Human Services
- **Brian King, PhD, MPH** - Deputy Director for Research Translation, Office on Smoking and Health, Centers for Disease Control and Prevention
- **Molly Moilanen, MPP** - Director of Public Affairs, ClearWay Minnesota
- **Laura Oliven** - Tobacco Control Manager, Minnesota Department of Health
• Tobacco use is the single most preventable cause of disease, disability, and death in the United States.

• Tobacco use of any form causes serious health conditions including: lung cancer, heart disease, stroke, pregnancy complications, gum disease and vision problems.

• Secondhand smoke causes serious health consequences in both children and adults.
Tobacco Leading Health Indicators

• Adult cigarette smoking (TU-1.1)
• Adolescent cigarette smoking in past 30 days (TU-2.2)
Current Cigarette Smoking, Adults 18+ Years, 1965–2017

Percent

<table>
<thead>
<tr>
<th>Year</th>
<th>Percent</th>
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<tbody>
<tr>
<td>1965</td>
<td>45</td>
</tr>
<tr>
<td>1975</td>
<td>40</td>
</tr>
<tr>
<td>1985</td>
<td>35</td>
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<tr>
<td>1995</td>
<td>30</td>
</tr>
<tr>
<td>2005</td>
<td>25</td>
</tr>
<tr>
<td>2015</td>
<td>20</td>
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HP2020 Target: 12.0%

NOTES: Data are for adults 18+ who have smoked at least 100 cigarettes in their lifetime and currently report smoking every day or some days. Data are age adjusted to the 2000 standard population. Data prior to 1997 are not strictly comparable with data for later years due to the 1997 questionnaire redesign.

SOURCE: National Health Interview Survey (NHIS), CDC/NCHS.
Cigarette Smoking in Past Month, Students in Grades 9–12, 1991–2017

NOTES: Data are for students in grades 9–12 who smoked cigarettes on 1 or more of the 30 days preceding the survey.

SOURCE: Youth Risk Behavior Surveillance System (YRBSS), CDC/NCHHSTP.

Obj. TU-2.2
Decrease desired
TOBACCO PREVENTION AND CONTROL IN THE UNITED STATES: Where We’ve Been, Where We Are, and Where We’re Headed

BRIAN A. KING, PHD, MPH | DEPUTY DIRECTOR FOR RESEARCH TRANSLATION

Healthy People 2020 Tobacco Use Leading Indicators Webinar • March 21, 2019 • 12 p.m.
The CDC is the lead federal agency for comprehensive tobacco prevention and control efforts

**CDC's Office on Smoking and Health works to:**

- Prevent initiation of tobacco use among youth and young adults
- Promote tobacco use cessation among adults and youth
- Eliminate exposure to secondhand smoke
- Identify and eliminate tobacco-related disparities

CDC's National Tobacco Control Program (NTCP) was developed to encourage coordinated, national efforts to reduce tobacco-related disease and death. CDC is the only federal agency that provides funding to help support all 50 states, 8 U.S. territories, and the District of Columbia's comprehensive tobacco control efforts.

**CDC funds:**

- 50 states and DC
- 12 tribal support organizations
- 8 U.S. territories
- 8 national networks representing populations most impacted
Tobacco use is the leading cause of preventable disease, disability, and death in the United States.

34M
An estimated 34.3 million U.S. adults smoked in 2017.¹

2 in 5
About two in every five children are exposed to secondhand smoke.³

480,000
Cigarette smoking and secondhand smoke exposure kill about 480,000 people in the U.S. each year.¹

1 vs. 30
For every one smoking-related death, at least 30 people live with a serious smoking-related illness.²

$300B
Each year, cigarette smoking costs the US more than $300 billion, including $170 billion in direct medical costs and $156 billion in lost productivity.²,⁴

Sources:
If smoking continues at the current rate among youth in this country, **5.6 million of today’s Americans younger than 18 will die early from a smoking-related illness.**¹

Nearly **9 out of 10** cigarette smokers first tried smoking by age 18, and **98%** first try smoking by age 26.¹

Each day in the United States, about **2,000 youth under 18 years of age smoke their first cigarette**, and more than **300 youth under 18 years of age become daily cigarette smokers.**²,³

Sources:
2. 2017 National Survey on Drug Use And Health: Detailed Tables External. Substance Abuse and Mental Health Data Archive [accessed 28 Feb 2019].
Good News: Cigarette Smoking Is Down

Sources: Adult cigarette smoking prevalence data are from the National Health Interview Survey. High school cigarette smoking prevalence data are from the National Youth Risk Behavior Survey.

Adult Prevalence
2017: 14.1%
HP2020 Target: 12.0%
Status: IMPROVING

Youth Prevalence
2017: 8.8%
HP2020 Target: 16.0%
Status: TARGET EXCEEDED
Bad News: Disparities Persist

Current cigarette smoking among U.S. Adults – 2017

- **Race/Ethnicity**
  - 24.0% American Indians/Alaska Natives
  - 15.2% White

- **Education Level**
  - 36.8% GED
  - 4.1% Graduate degree

- **Annual Household Income**
  - 21.4% <$35,000
  - 7.6% ≥$100,000

- **Health Insurance Coverage**
  - 24.7% Uninsured
  - 24.5% Medicaid
  - 10.5% Private
  - 8.7% Medicare

- **Disability/Limitation**
  - 20.7% Yes
  - 13.3% No

- **Sexual Orientation**
  - 20.3% Lesbian/Gay/Bisexual
  - 13.7% Heterosexual

- **Serious Psychological Distress**
  - 35.2% Yes
  - 13.2% No

The Tobacco Product Landscape Is Evolving

- Cigarettes
- Cigars, Cigarillos, Little Cigars
- Pipes
- Snus
- Bidis
- Kreteks
- Hookah
- E-cigarettes
- Dissolvables
- Heated Tobacco Products
Adult Per Capita Cigarette Consumption and Major Smoking-and-Health Events—U.S., 1900–2017

Tobacco Control Vaccine Booster: Opportunities to Modernize Proven Interventions

- Tobacco 21
- Smoke-free Multiunit Housing
- Tobacco-free College
- E-cigarettes
- Tobacco-free Pharmacies
- e-Referrals
- Tobacco-free Sports
- Digital Media
- Restrictions on Flavors
- Alternative Pricing Policies
## Key Takeaways

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<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>1</strong></td>
<td>Tobacco use is the leading cause of preventable disease, disability, and death.</td>
</tr>
<tr>
<td><strong>2</strong></td>
<td>Most tobacco product use begins during adolescence.</td>
</tr>
<tr>
<td><strong>3</strong></td>
<td>Tobacco control has the luxury of over a half century of experience. We know what works.</td>
</tr>
<tr>
<td><strong>4</strong></td>
<td>The tobacco product landscape continues to diversify. We must modernize tobacco control strategies to adapt to these changes.</td>
</tr>
</tbody>
</table>
Minnesota’s Tobacco Control Landscape

- Comprehensive Clean Indoor Air
- High Tobacco Taxes
- Local Policy Authority
Minnesota’s 2013 Tobacco Tax: A Success Story

Molly Moilanen
Vice President
ClearWay Minnesota℠
About Us

• Established 1998
• Nonprofit
• $202 million
• 25-year mission
• Reduce harm of tobacco
Our Programs

• Cessation
• Priority Populations
• Mass Media
• Public Policy
• Research
• Partnerships
20-Year Smoking Impact

• 37.5% Decline in Adult Smoking Rate
• 70% Decline in Youth Smoking Rate
• 65% Decline Cigarette Pack Sales
20-Year Health Impact

Reducing cigarette smoking has saved lives.

- 4,560 cancers prevented
- 31,691 fewer hospitalizations for cardiovascular disease and diabetes
- 12,881 fewer respiratory disease hospitalizations
- 4,118 smoking-attributable deaths prevented

Thanks to ClearWay Minnesota and our partners, thousands of Minnesota families have grandparents, parents, children, friends and coworkers who have been spared the death and disease caused by tobacco use.
20-Year Economic Impact

Reducing cigarette smoking has saved money.

$2.4 billion gained in worker productivity

$2.7 billion less spent on medical care (about $484 per Minnesotan)

Total = $5.1 billion (about $914 per Minnesotan)

The benefits of prevention and cessation accrue gradually, so these numbers will grow as people who quit or never started over the past 20 years live longer and enjoy better health.

20 years

ClearWay
Success Story:
2013 Tobacco Tax Campaign

RAISE IT for health
Reduce Tobacco’s Harm in Minnesota
How We Did It

• Comprehensive Campaign:
  – Strong coalition, champions
  – Media (paid, earned & social)
  – Grassroots support
  – Direct lobbying

• Strong Messengers:
  – Priority populations
  – Youth
Signed into Law May 2013

Highest tobacco tax increase in state history and second-highest nationally.
Policy Highlights

- Up $1.60 + indexing
- Closed “little cigar” loophole
- Min. tax on moist snuff
- Increased tax on OTPs
- Tax on premium cigars
- Revenue study
Minnesota’s Tax Ranking

Cigarette excise tax

$1.23

$2.83
($3.04)

National ranking

28th

7th
(8th)
Governor’s Support
Results: Biggest-Ever Drop in Youth & Adult Smoking Rates

**Record Low Adult Smoking Rate***
- 14.4% (2014)
- Down from 16.1% (2010)

**Significant Decline in Young-Adult Smoking (18-24 years)***
- 15.3% (2014)
- Down from 21.8% (2010)

**Record Low High-School Smoking Rate**
- 10.6% (2014)
- Down from 18.1% (2011)

Sources: * = MATS, ** = MYTS
## Smokers’ Response to 2013 Tax

<table>
<thead>
<tr>
<th>Response</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thought about quitting</td>
<td>60.8%</td>
</tr>
<tr>
<td>Made a quit attempt</td>
<td>44.2%</td>
</tr>
<tr>
<td>Cut down on cigarettes</td>
<td>48.1%</td>
</tr>
</tbody>
</table>

*Smoking is expensive. Quitting is FREE.*

FREE gum, patches & lozenges for eligible smokers.

[QUITPLAN quitplan.com](http://quitplan.com)
Results: Adults Quitting

The year after the 2013 tax increase, 15 percent of smokers successfully quit.
Results: Growing Impact of Price

SimSmoke 1

- Mass Media: 19%
- Smoke-Free Air Laws: 20%
- Youth Access Laws: 7%
- Cessation Treatment: 11%
- Price: 43%

THE IMPACT OF INDIVIDUAL TOBACCO CONTROL PROGRAMS: 1993 TO 2011

SimSmoke 2

RELATIVE IMPACT OF POLICIES 1993 to 2017

- Price: 66%
- Clean Indoor Air: 5%
- Cessation Treatment: 8%
- Tobacco Control Funding: 14%
- Youth Access: 7%
65% Decline Cigarette Pack Sales

Source: Tax Burden Report, 2017
Despite Progress, Challenges Remain

• Tobacco use = leading cause of preventable death & disease

• Adult smoking rate stalled at 14%

• Youth tobacco use increased for the first time in a generation

• Major disparities remain

• ClearWay Minnesota ending by 2022
Coalition Policy Priorities

1) Increase price

2) Fund prevention & cessation

3) Raise sales age to 21

4) Restrict sale of flavored products
Local Leadership Continues

• 56 cities/counties prohibit e-cigarette use where smoking is banned.

• 23 cities and counties have passed Tobacco 21.

• Nine cities restrict the sales of flavored tobacco products.
  • Six of those cities restrict sales of all flavored tobacco products (including menthol) to adult-only stores.
Menthol

“I don’t believe the lie the tobacco companies try to sell me.”

The truth is: 44 percent of Minnesota high school students who smoke use menthol.

www.BeautifulLieUglyTruth.org
State Efforts to Address Youth Tobacco Use

Laura Oliven | Tobacco Control Manager
Comprehensive Tobacco Control

Components of a Comprehensive Program

- State and Community Interventions
- Cessation Interventions
- Mass-Reach Health Communications
- Surveillance and Evaluation
- Infrastructure, Administration, and Management

Program Goals

- Youth Prevention
- Health Equity
- Secondhand Smoke Elimination
- Cessation Promotion
Grantee Networks

- Statewide Health Improvement Partnership (SHIP)
- Tobacco-Free Communities Grant Program (TFC)
- Tribal Grants
Extensive Technical Assistance and Training

Policy, systems, and environmental change process

Community Outreach and Education

Retailer mapping and store assessment

Organizational capacity building and skill development
Local Policy Action

Protecting youth by reducing access to tobacco and industry marketing

Vector illustration credit: Vecteezy
84% smoke menthol

88% believe tobacco use is a significant health issue

61% feel menthol is marketed to their community more than others

69% believe menthol makes it easier for young people to start smoking
Percent of high school students who used various tobacco products in the past 30 days, by type of product: 2005-2017

- cigarettes
- e-cigarettes

<table>
<thead>
<tr>
<th>Year</th>
<th>Cigarettes</th>
<th>E-cigarettes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>22.4%</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>19.1%</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>18.1%</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>12.9%</td>
<td>19.2%</td>
</tr>
<tr>
<td>2017</td>
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Percent of high school students who used e-cigarettes in past 30 days

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A Changing Risk Environment

- High concentration of nicotine and new nicotine salt technology
- Unfettered marketing on social media
- Fruit and other flavors
- Widespread availability where kids shop
Increased Risk of Smoking

Berry et al., 2019, *JAMA Network Open*

4x greater odds of smoking
October 8, 2018
Youth e-cigarette use has risen dramatically in Minnesota in the last three years, with an almost 50 percent increase in high school student e-cigarette use since 2014. This is a major public health concern. Youth use of nicotine increases their risk of addiction, and can make them more susceptible to addiction to tobacco products and other substances in the future. The Minnesota Department of Health recommends immediate action requiring the participation of parents, educators, health care providers, and policy makers.

Nicotine primes the adolescent brain for addiction.
Addiction is a form of learning, where the brain learns to connect a stimulus (for example, smoking a cigarette or e-cigarette) with a response (feelings of pleasure and calming of cravings). Each time a new skill or memory is learned, stronger connections—or synapses—are built between brain cells. Young people build synapses faster than adults. Nicotine changes the way these synapses are formed. Youth exposed to nicotine are at higher risk for addiction than are adults because youth brains are still forming and making permanent connections. Studies show that symptoms of nicotine addiction can appear among youth within only a few days or weeks after smoking initiation. The use of nicotine in e-cigarettes—nearly all of which contain nicotine—and other tobacco products primes the adolescent brain for addiction. This could have significant public health consequences, including potentially increasing the risk for youth of future addiction.

Youth who are exposed to nicotine are more likely to use other substances.
Receptors in the brain are stimulated by exposure to nicotine, which triggers a rewarding effect on the brain. These receptors respond to and enhance the effects of nicotine and other drugs. The more adolescents are exposed to nicotine, the greater the sense of enjoyment because the effects of nicotine and other drugs are made stronger by repeated exposure. This effect increases the likelihood that youth will develop a dependence on those drugs. For example, studies have found that young adults who smoke cigarettes or who use e-cigarettes are much more likely to binge drink than non-smokers. More recent studies have identified similar patterns between use of nicotine and use of other drugs, including marijuana, cocaine, and methamphetamine.

New e-cigarette technologies pose greater risks for youth.
Popular e-cigarettes like JUUL have developed new technologies utilizing nicotine salts that are absorbed into the body more effectively and come in record-high levels of nicotine. According to the

Highlights the damaging health consequences to young brains
Warns that early nicotine exposure increases susceptibility to long-term addiction
Includes action steps for parents, health care providers, school staff, and policy makers
School Outreach

Addressing Student Use of E-cigarettes and other Vaping Products

For the first time since 2013, overall youth tobacco use has been on the rise in Minnesota. The use of e-cigarettes and other vaping devices has steadily increased in Minnesota, and second-hand smoke in middle and high school students via e-cigarettes, amounts to 10 percent.

This toolkit provides tools and resources for Minnesota school staff, including administrators, educators, and others responsible for maintaining standards for use of cigarettes and other vaping products in schools. The toolkit includes opportunities for action that can be taken by certain school staff, along with resources and tools.

E-cigarettes and other Vaping Products

E-cigarettes are battery-powered devices that allow users to inhale, or “vape,” aerosolized nicotine. E-cigarettes come in pods, pods, and other vaping products that are commonly used tobacco products (vaping products) that are marketed as safer alternatives to cigarettes but the negative health effects are not fully understood yet.

Trends of e-cigarettes continue to escalate. While e-cigarettes can harm the developing adolescent brain, because they are still developing and are heavy smokers, nicotine can lead to addiction and change attention and learning. The amount of nicotine is safe for youth.

Learn more about e-cigarettes and nicotine:

- Minnesota Department of Health
- Tobacco Use and Control: Minnesota Department of Health
- Prevention & Health: Minnesota Department of Health
- Tobacco Use: Minnesota Department of Health
- Tobacco Use and Control: Preventing Tobacco Use in Youth (TPC) - Minnesota Department of Health
- Youth’s Role in The Next Generation (YPY) - Association for Minnesota
Activating Partners

MDH

Medical

Schools

CBOs

Parents

Media

Health

Care

Grantee and Partner Toolkit

• Talking points
• Data highlights
• Q&A
• Sample communications
• Key resources
Media Push

4 PSA’s messaged to parents

- **Dangers of nicotine**: talk to your kids
- **Products like JUUL**: be aware of devices kids use
- **Industry targeting**: be aware of how your kids are targeted
- **Dangers of nicotine**: set an example by not using

Available at [youtube.com/user/MNDeptofofHealth](https://www.youtube.com/user/MNDeptofofHealth)
Local Leadership

56 communities prohibit e-cigarette use where smoking is banned.

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Evaluation

Short Term

• Media Reach and Web Traffic
• Feedback from Partners and Grantees

Long Term

• 2019 Minnesota Student Survey
• 2020 Minnesota Youth Tobacco Survey
health.mn.gov/tobacco
Roundtable Discussion
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- Visit [healthypeople.gov](http://healthypeople.gov) to learn more about the Healthy People 2020 Leading Health Indicators

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  - Join the Healthy People 2020 Consortium
  - Share how your organization is working to achieve Healthy People goals

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