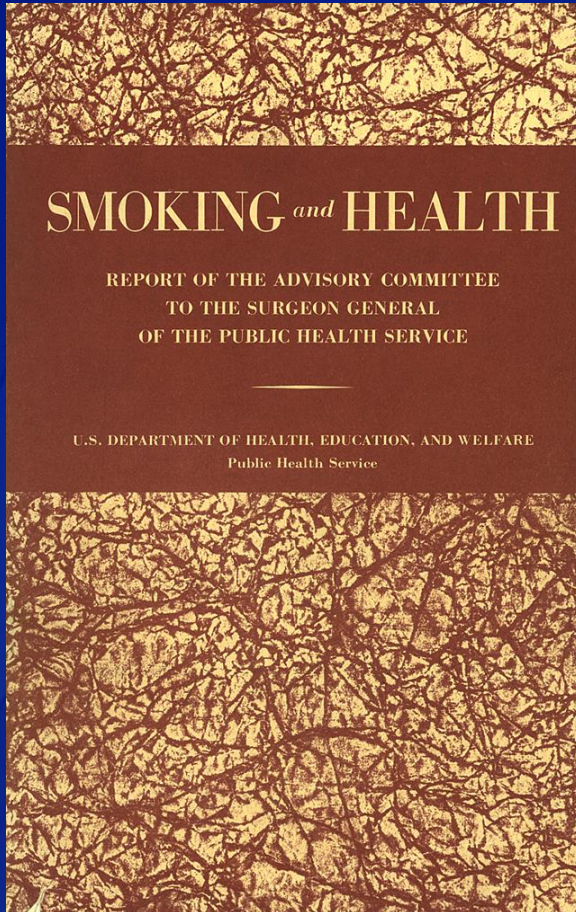


The Health Consequences of Smoking: 50 Years of Progress

A Report of the Surgeon General



1964

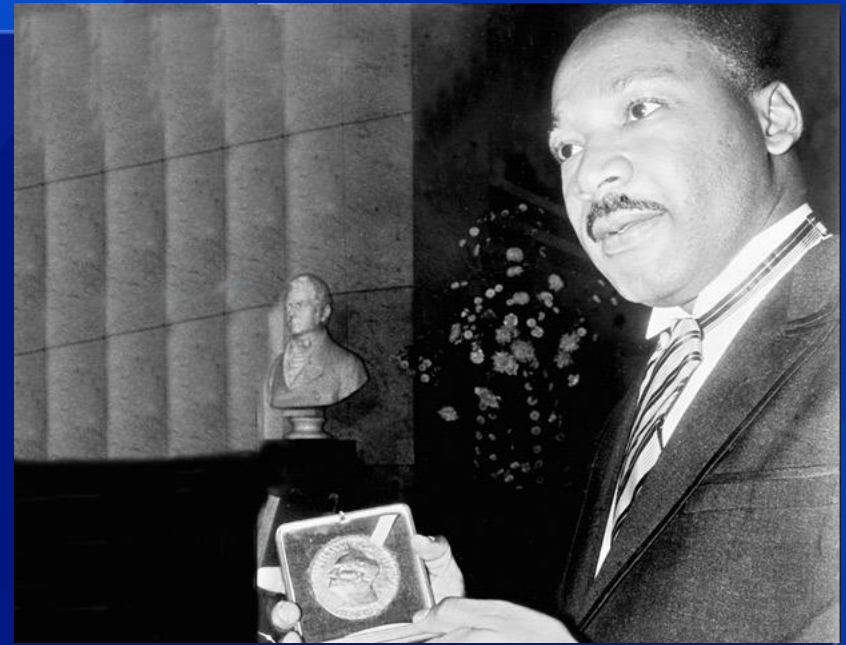
The Health Consequences of Smoking—50 Years of Progress

A Report of the Surgeon General



U.S. Department of Health and Human Services

2014



1964

According to repeated nationwide surveys:

More Doctors Smoke **CAMELS** than any other cigarette!

Doctors in every branch of medicine were asked: "What cigarette do you smoke?" The brand named most was Camel!

You'll save funds for the extra stress on your already active days. Camels have real mild nicotine, just what you need to relax after your day's work. Make this another year, doctor!

Camels are the preferred cigarette for doctors because they taste just what you need. You'll find no other cigarette so satisfying!

THE DOCTORS' CHOICE IS AMERICA'S CHOICE!

For 30 days, test Camels in your "F-Zone" (F for Throat, F for Taste).

www.StrangeCosmos.com

The Grim Statistics

Between 1964 and 2014:

- ❑ Over 20 million Americans died because of smoking, including
 - 2.5 million nonsmokers
 - More than 100,000 babies
- ❑ Smoking is still the **leading cause** of preventable disease and death in the United States.

21st Century Tobacco Use

Between 2010 and 2014 smoking caused

- ❑ Nearly half a million premature deaths a year**
- ❑ More than 87% of all lung cancer deaths**
- ❑ 61% of all pulmonary deaths**
- ❑ 32% of all coronary deaths**

The costs of smoking

- ❑ Annual smoking costs are more than **\$289 billion**.
- ❑ We spend at least **\$132 billion** in yearly medical care for adults.
- ❑ We lose at least **\$157 billion** yearly in productivity costs when smokers get sick and die early.

❑ In North Carolina

- ❑ We spend at least **\$3.8 billion** per year in medical costs due to smoking.

Smoking and Children

**5.6
MILLION**

CHILDREN ALIVE TODAY
WILL ULTIMATELY
DIE EARLY FROM SMOKING
IF WE DO NOT DO MORE
TO REDUCE CURRENT
SMOKING RATES

THAT'S EQUAL TO

1 CHILD
OUT OF
EVERY 13
ALIVE IN THE U.S. TODAY

—OR—

2 OF THE **27**
CHILDREN
IN THE AVERAGE
3RD GRADE
CLASSROOM



The Power of Nicotine Addiction

- ❑ Nicotine is the primary addicting drug in cigarettes.
- ❑ Nicotine keeps people smoking longer and that causes more damage to the body.
- ❑ Nicotine patches, gum, and lozenges are safe when used as directed.



Four-level hierarchy for classifying the strength of causal inferences from available evidence

- Level 1 Evidence is **sufficient** to infer a causal relationship
- Level 2 Evidence is **suggestive but not sufficient** to infer a causal relationship
- Level 3 Evidence is **inadequate** to infer the presence or absence of a causal relationship (which encompasses evidence that is sparse, of poor quality, or conflicting)
- Level 4 Evidence is **suggestive of no causal relationship**

Smoking and Diabetes

Diabetes is the 7th leading cause of death in the U.S.

- ❑ **Smoking causes type 2 diabetes.**
- ❑ **Smokers are 30-40% more likely to develop type 2 diabetes than nonsmokers.**
- ❑ **The more cigarettes an individual smokes, the higher the risk for diabetes.**



Diabetes

- ❑ **Diabetes – a disease that causes blood sugar levels in the body to be too high – is a growing health crisis around the world.**
- ❑ **In the United States, more than 25 million adults suffer from diabetes.**
- ❑ **In North Carolina, 18.3% of persons with diagnosed diabetes are current smokers.**

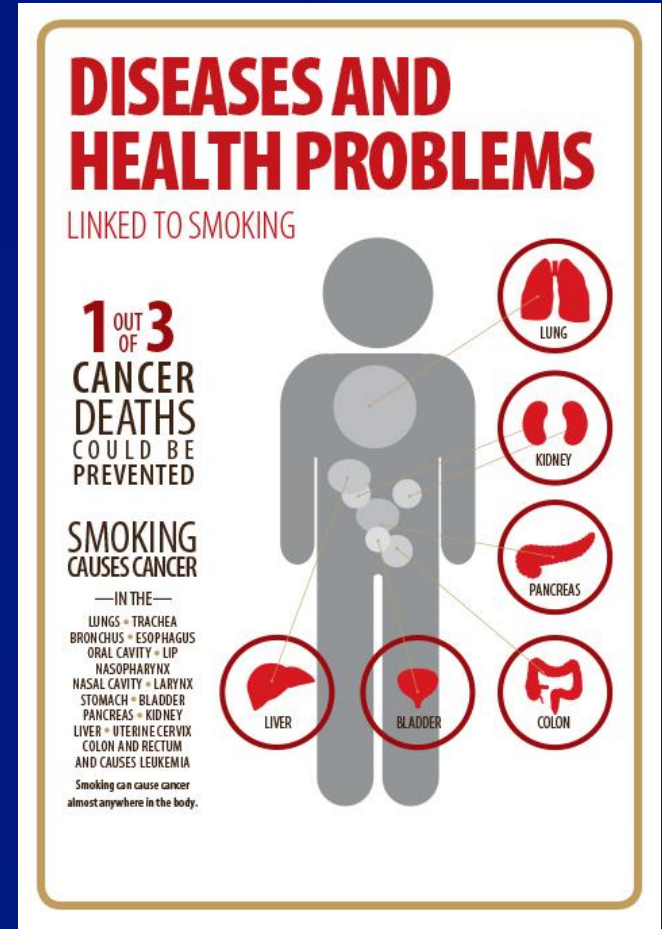
Biological Basis of Causation: Smoking and Type 2 Diabetes

- ❑ **Smokers have more abdominal or "belly" fat. This kind of fat makes the body more resistant to insulin.**
- ❑ **Nicotine in cigarette smoke may make the body more resistant to insulin and irregularities in glucose metabolism. This means that smokers with diabetes may need to take more insulin and have worse control of their blood sugar than nonsmokers.**
- ❑ **There is growing evidence that some of the risk can stem from prenatal and neonatal exposure to nicotine.**
- ❑ **In addition, smokers with diabetes are more likely to have diseases that result from damaged blood vessels than are nonsmokers with diabetes. Chemicals in cigarette smoke cause injury to the cells lining the blood vessels. This interferes with the body's ability to make blood vessels widen and to control blood clotting.**

Smoking – The Cancer Trigger

Smoking is now known to cause 13 different types of cancer—almost everywhere in the body.

- ❑ **1 out of 3** U.S. cancer deaths are tobacco-related.



New Cancer Findings

TWO more cancers are caused by smoking:

- ❑ **Liver cancer**
- ❑ **Colorectal cancer** –
the second deadliest
behind lung cancer

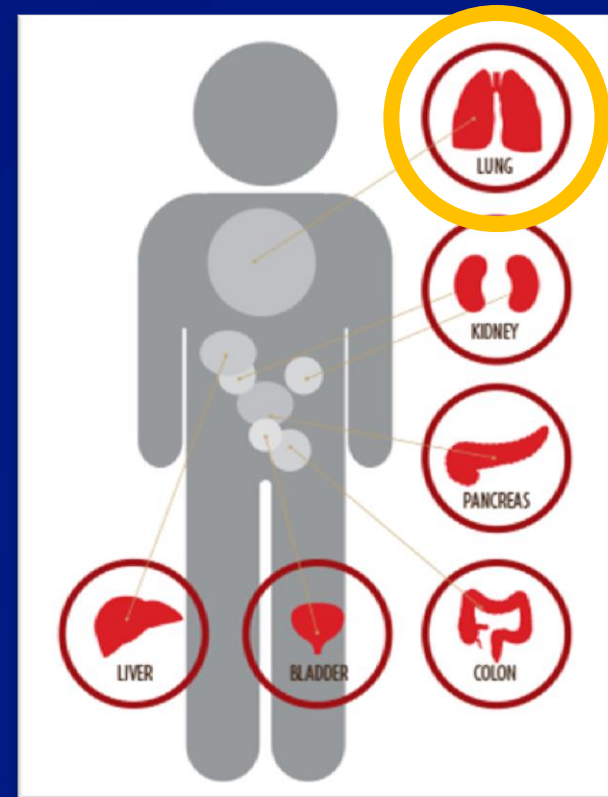
SMOKING keeps cancer
treatments from working
as well as they should.



Smoking – The Breath Blocker

Chronic Obstructive Pulmonary Disease (COPD)

- ❑ Smoking causes most cases of COPD.
- ❑ There is NO CURE for COPD

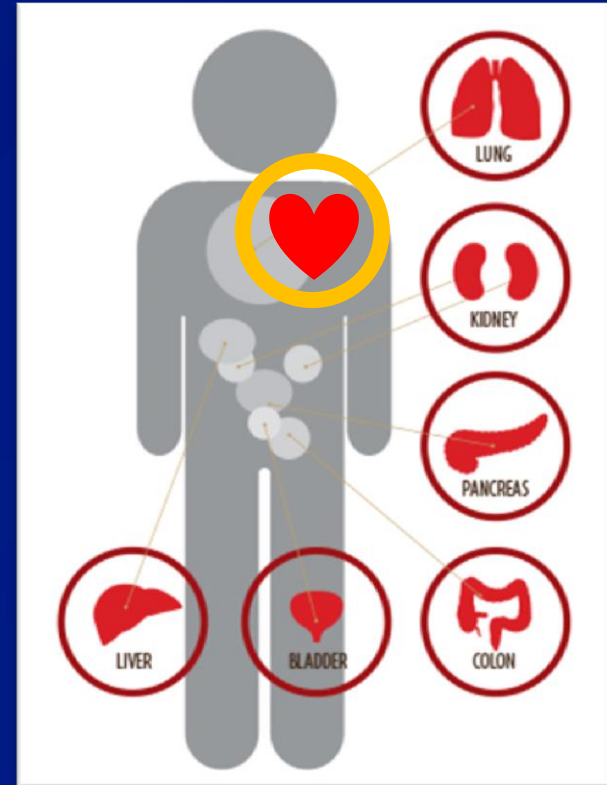


Smoking and Asthma 2014 SGR Conclusions

- ❑ Continues to support the 2004 findings that there is a causal relationship between active smoking and exacerbation of asthma in adults.
 - ❑ **Implications**
- ❑ Asthma is one of the most common chronic conditions in childhood, and is also common in adults.
- ❑ *“The clinical implications are clear: people with asthma should not smoke.”*

Smoking – The Heart Stopper

- ❑ Smoking causes cells lining veins and arteries to swell.
- ❑ Narrower arteries mean reduced blood flow to the heart, brain, and organs.
- ❑ Clots can block narrowed arteries, causing heart attack, stroke, and even sudden death.
- ❑ Even occasional smoking damages blood vessels.



Smoking and Reproduction

- ❑ Smoking increases the risk of ectopic pregnancy.
- ❑ Other smoking complications include:
 - ❖ miscarriage
 - ❖ early delivery
 - ❖ low birth weight



Smoking and Reproduction

Smoking also causes reproductive issues for men:

- ❑ **Smoking can cause erectile dysfunction (ED).**
- ❑ **Smoking damages DNA in sperm.**



Smoking and Eye Disease

- ❑ **Smoking causes serious eye disease, including:**
 - **Age-related macular degeneration (AMD)**
 - **Cataracts**
- ❑ **These diseases are the most common causes of blindness.**



Smoking and the Immune System

- ❑ Smoking harms the immune system and causes autoimmune disorders.
- ❑ Smoking is a cause of rheumatoid arthritis (RA).
- ❑ RA treatment can be less effective for smokers.



Smoking Today – The Persistent Epidemic

Cigarettes cause almost all tobacco-related disease and death.

- ❑ Smoking claims nearly **500,000** lives every year.
- ❑ More than **16 million** people have at least one smoking-related disease.
- ❑ **88 million** Americans continue to be exposed to SHS.

Saving Millions of Lives – Doing Much More

We know what works to lower smoking rates:

- ❑ Higher prices on cigarettes and other tobacco products**
- ❑ Well-funded, continuous mass media campaigns about the dangers of smoking**
- ❑ State and community outreach, educational and public health programs**

Saving Millions of Lives – Doing Much More

We know what works to lower smoking rates:

- ❑ Smokefree policies in public places**
- ❑ Make smoking the exception – not the norm**
- ❑ Easy-to-get affordable smoking cessation treatments**



Cessation – Lifeline to a Tobacco-Free Life

- ❑ Most smokers want to quit and half already have.
- ❑ Cessation therapies improve your chances of quitting successfully.
- ❑ Talk to your doctor, call 1-800-QUIT-NOW, or go to www.SmokeFree.gov for free help.



We Can Be Tobacco-Free

LET'S MAKE THE NEXT GENERATION **TOBACCO-FREE**

Your Guide to the 50th Anniversary Surgeon General's
Report on Smoking and Health



U.S. Department of Health and Human Services



Full report and/or Executive Summary

The Health Consequences of Smoking—50 Years of Progress

A Report of the Surgeon General



U.S. Department of Health and Human Services

Resources

- ❑ www.BeTobaccoFree.gov - information portal for additional tobacco-related Web sites
- ❑ www.SurgeonGeneral.gov - SGRs, consumer guides, Public Service Announcements
- ❑ www.cdc.gov/tobacco - statistics, reports, plain language products for download and ordering
- ❑ www.smokefree.gov - help for people who want to quit smoking
- ❑ www.cdc.gov/tips - stories of real people dealing with smoking-related diseases and how they quit

Overview of CDC's *Best Practices for Comprehensive Tobacco Control Programs—2014*

National Center for Chronic Disease Prevention and Promotion
Office on Smoking and Health



**Nationally, Current State Spending on Tobacco Control is 85% Less
than CDC-Recommended Levels;
North Carolina's gap is much greater**

- ❑ **Annual revenue states receive in tobacco settlement payments and sales:**
 - **~\$80 per person**
- ❑ **CDC-recommended annual spending on tobacco control:**
 - **\$10.53 per person**
- ❑ **Nationally, annual average state spending on tobacco control: \$1.50 per person.**
- ❑ **In NC in 2013, TOTAL spending dedicated to tobacco control is 41 cents per person**
 - **NC state spending on tobacco is 18 cents per person.**
 - **NC's federal funds dedicated to tobacco is 23 cents per person.**

North Carolina

Program Intervention Budgets		2014
Recommended Annual Investment		\$99.3 million
Deaths in State Caused by Smoking		
Annual average smoking-attributable deaths		12,500
Youth aged 0-17 projected to die from smoking		180,000
Annual Costs Incurred in State from Smoking		
Total medical		\$3,810 million
State Revenue from Tobacco Sales and Settlement		
FY 2012 tobacco tax revenue		\$294.8 million
FY 2012 tobacco settlement payment		\$141.0 million
Total state revenue from tobacco sales and settlement		\$435.8 million
Percent Tobacco Revenue to Fund at Recommended Level		23%

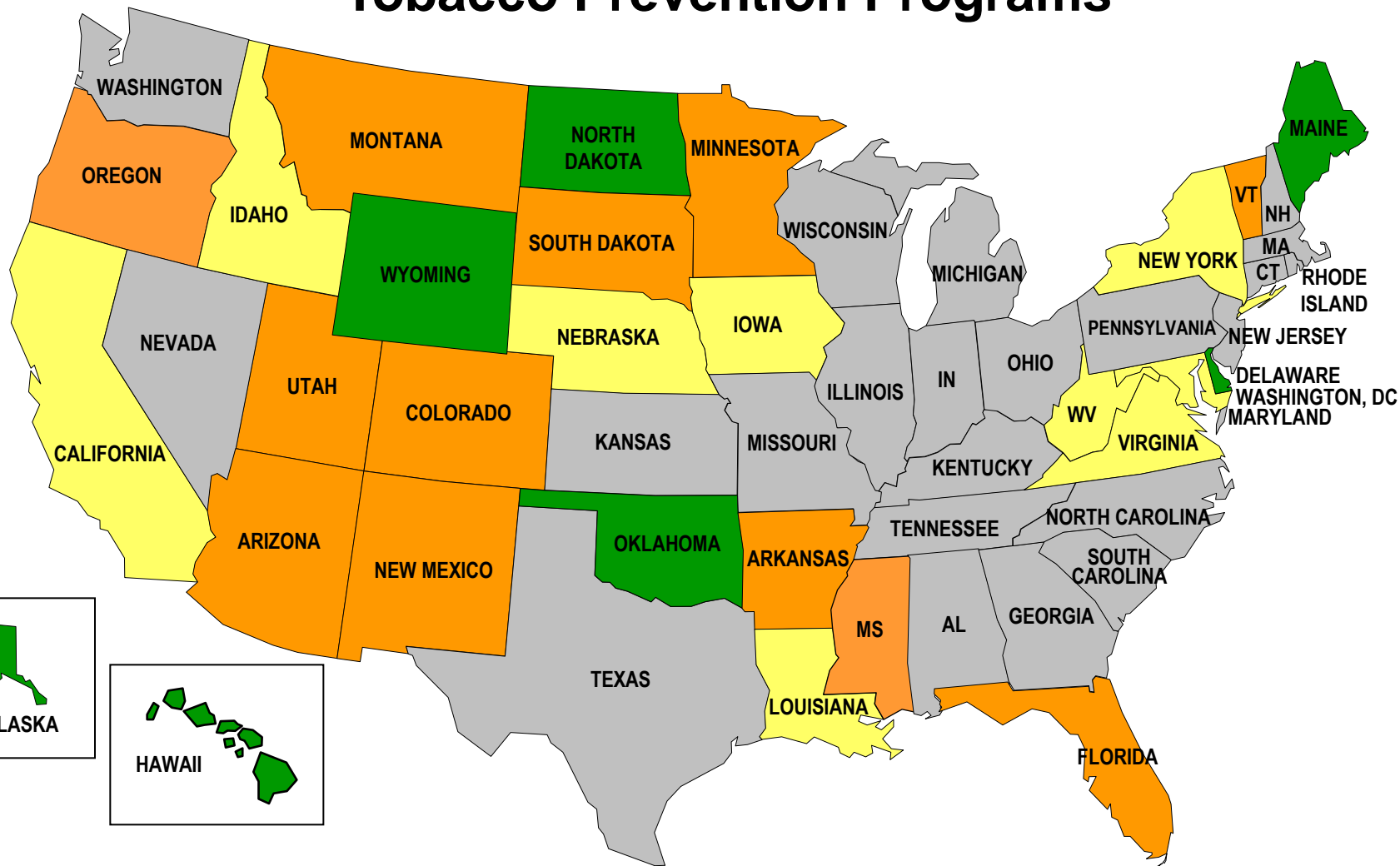
	Annual Total (Millions)		Annual Per Capita	
	Minimum	Recommended	Minimum	Recommended
I. State and Community Interventions				
Multiple social resources working together will have the greatest long-term population impact.	\$26.4	\$33.1	\$2.71	\$3.39
II. Mass-Reach Health Communication Interventions				
Media interventions work to prevent smoking initiation, promote cessation, and shape social norms.	\$6.8	\$9.8	\$0.70	\$1.00
III. Cessation Interventions				
Tobacco use treatment is effective and highly cost-effective.	\$27.1	\$43.5	\$2.78	\$4.46
IV. Surveillance and Evaluation				
Publicly funded programs should be accountable and demonstrate effectiveness.	\$6.0	\$8.6	\$0.62	\$0.89
V. Infrastructure, Administration, and Management				
Complex, integrated programs require experienced staff to provide fiscal management, accountability, and coordination.	\$3.0	\$4.3	\$0.31	\$0.44
TOTAL	\$69.3	\$99.3	\$7.12	\$10.18


Note: A justification for each program element and the rationale for the budget estimates are provided in Section A. The funding estimates presented are based on adjustments for changes in population and cost-of-living increases since *Best Practices—2007* was published. The actual funding required for implementing programs will vary depending on state characteristics, such as prevalence of tobacco use, sociodemographic factors, and other factors. See Appendix E for data sources on deaths, costs, revenue, and state-specific factors.


CDC Best Practices 2014


North Carolina's State Page


FY2014 Funding for State Tobacco Prevention Programs



 States that are spending 50% or more of CDC recommendation on tobacco prevention programs.

 States that are spending 25% - 49% of CDC recommendation on tobacco prevention programs.

 States that are spending 10% - 24% of CDC recommendation on tobacco prevention programs.

 States that are spending less than 10% of CDC recommendation on tobacco prevention programs.



State	FY2014 Current Annual Funding (millions)	CDC Annual Recommendation [€] (millions)	FY2014 Percent of CDC's Recommendation
Alaska*	\$10.1	\$10.2	99.4%
North Dakota*	\$9.5	\$9.8	97.1%
Delaware	\$8.3	\$13.0	64.0%
Wyoming	\$5.1	\$8.5	60.0%
Hawaii	\$7.9	\$13.7	57.3%
Oklahoma	\$22.7	\$42.3	53.7%
Maine	\$8.1	\$15.9	50.7%
Colorado	\$28.0	\$52.9	49.1%
Arkansas	\$17.5	\$36.7	47.6%
Vermont	\$3.9	\$8.4	46.4%
Minnesota	\$21.3	\$52.9	40.2%
Utah	\$7.5	\$19.3	39.1%
Montana	\$5.4	\$14.6	37.0%
South Dakota	\$4.0	\$11.7	34.2%
Florida	\$65.8	\$194.2	33.8%
Mississippi	\$10.9	\$36.5	29.9%
Arizona	\$18.8	\$64.4	28.9%
New Mexico	\$5.9	\$22.8	26.0%
Oregon	\$9.9	\$39.3	25.2%
New York	\$39.3	\$203.0	19.4%
West Virginia	\$5.3	\$27.4	19.2%
California	\$64.8	\$347.9	18.6%
Maryland	\$8.5	\$48.0	17.8%
Iowa	\$5.1	\$30.1	17.1%
Idaho	\$2.2	\$15.6	14.1%
Louisiana	\$8.0	\$59.6	13.4%
Nebraska	\$2.4	\$20.8	11.4%
Virginia	\$9.5	\$91.6	10.3%

State	FY2014 Current Annual Funding (millions)	CDC Annual Recommendation [€] (millions)	FY2014 Percent of CDC's Recommendation
South Carolina	\$5.0	\$51.0	9.8%
Connecticut	\$3.0	\$32.0	9.4%
Wisconsin	\$5.3	\$57.5	9.2%
Illinois	\$11.1	\$136.7	8.1%
Indiana	\$5.8	\$73.5	7.8%
Tennessee	\$5.0	\$75.6	6.6%
Massachusetts	\$4.0	\$66.9	5.9%
District of Columbia	\$495,000	\$10.7	4.6%
Texas	\$11.2	\$264.1	4.2%
Kentucky	\$2.1	\$56.4	3.7%
Pennsylvania**	\$5.0	\$140.0	3.6%
Kansas	\$946,671	\$27.9	3.4%
Nevada	\$1.0	\$30.0	3.3%
Rhode Island	\$388,027	\$12.8	3.0%
Georgia	\$2.2	\$106.0	2.1%
Michigan	\$1.5	\$110.6	1.4%
North Carolina	\$1.2	\$99.3	1.2%
Washington	\$758,000	\$63.6	1.2%
Ohio	\$1.5	\$132.0	1.1%
New Hampshire	\$125,000	\$16.5	0.8%
Alabama	\$275,000	\$55.9	0.5%
Missouri	\$76,364	\$72.9	0.1%
New Jersey	\$0.0	\$103.3	0.0%

€ Based on the Centers for Disease Control and Prevention's *Best Practices for Comprehensive Tobacco Control Programs* – 2014.

* Alaska and North Dakota currently fund tobacco prevention programs at CDC-recommended levels when a federal grant of \$1.1 million is added to state funding levels.

** Pennsylvania's current annual spending is estimated, not confirmed.

**North Carolina Ranks 45th
Of the 50 states + D.C.**



National *Recommended* Funding Levels, by Program Component

National <i>Recommended</i> Investment	Total	State and Community Interventions	Mass-Reach Health Communication Interventions	Cessation Interventions	Surveillance and Evaluation	Infrastructure, Administration, and Management
Total Level (\$ millions)	\$3,306.3	\$1,071.0	\$532.0	\$1,271.9	\$287.7	\$143.7
Per Person	\$10.53	\$3.41	\$1.69	\$4.05	\$0.92	\$0.46

**Please submit any additional
comments or questions to:**
tcbestpractices@cdc.gov

For more information please contact Centers for Disease Control and Prevention

1600 Clifton Road NE, Atlanta, GA 30333
Telephone, 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348
E-mail: cdcinfo@cdc.gov Web: www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.



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Upcoming Events: Mark your Calendars!

- ❑ **Webinar on How to Use the SGR 50 and CDC Best Practices 2014. For Government and Advocacy Partners. March 27, 11am-12:30. Contact: pam.diggs@dhhs.nc.gov**
- ❑ **Plenary Session on the SGR 50. Acting Surgeon General Rear Admiral (RADM) Boris D. Lushniak, M.D., M.P.H., is the invited speaker. NC Town Hall Meeting to follow. NCPHA Annual Conference September 17, 2014. Wilmington Hilton.**

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