

# The True Cost of Smoking by State

by [Richie Bernardo](#)



0 Shares



Smoking can not only ruin your health, but it can also burn a nasty hole through your wallet. Tobacco use accounts for [nearly half a million premature deaths](#) in the U.S. each year and is the leading cause of lung cancer, according to the American Lung Association. Even those around tobacco smokers aren't safe from its harmful effects. Since 1964, smoking-related illnesses have [claimed](#) 20 million lives in the U.S., 2.5 million of

which belonged to nonsmokers who developed diseases merely from secondhand-smoke exposure.

However, the economic and societal costs of smoking-related issues are just as staggering. Every year, Americans collectively spend a **total** of \$326 billion, including nearly \$170 billion in direct health-care costs and more than \$156 billion in lost productivity due to premature death and exposure to secondhand smoke. Unfortunately, some people will have to pay more depending on the state in which they live.

In light of Tobacco-Free Awareness Week and to encourage the **more than 66 million** tobacco users in the U.S. to kick the dangerous habit, WalletHub's analysts gauged the true per-person cost of smoking in each of the 50 states and the District of Columbia. We did so by calculating the potential monetary losses — including the cumulative cost of a cigarette pack per day over several decades, health care expenditures, income losses and other costs — brought on by smoking and exposure to secondhand smoke.

**1** Costs Over a Lifetime

**2** Costs per Year

**3** Ask the Experts

**4** Methodology

## Costs Over a Lifetime



[EMBED ON YOUR WEBSITE](#)

Overall Rank	State	Total Cost per Smoker	Out-of-Pocket Cost (Rank)	Financial Opportunity Cost (Rank)	Health-Care Cost per Smoker (Rank)	Income Loss per Smoker (Rank)	Other Costs per Smoker (Rank)
1	Louisiana	\$1,232,159	\$87,937 (2)	\$831,542 (2)	\$115,351 (4)	\$183,563 (8)	\$13,765 (46)
2	Kentucky	\$1,238,247	\$90,022 (6)	\$851,257 (6)	\$111,475 (1)	\$176,835 (4)	\$8,658 (2)
			\$91,751	\$901,112	\$162,121	\$101,977	\$10,927

3	Missouri	\$1,254,421	\$84,757 (1)	\$801,772 (1)	\$102,721 (28)	\$157,077 (15)	\$10,527 (29)
4	West Virginia	\$1,255,852	\$90,618 (7)	\$856,890 (7)	\$130,965 (10)	\$169,630 (3)	\$7,749 (1)
5	North Carolina	\$1,263,332	\$88,570 (4)	\$837,527 (4)	\$136,258 (13)	\$190,507 (11)	\$10,469 (23)
6	Georgia	\$1,271,346	\$89,222 (5)	\$843,688 (5)	\$125,750 (8)	\$201,315 (20)	\$11,371 (31)
7	Tennessee	\$1,279,003	\$93,131 (10)	\$880,653 (10)	\$113,598 (3)	\$182,054 (6)	\$9,567 (12)
8	South Carolina	\$1,289,352	\$92,833 (9)	\$877,837 (9)	\$124,027 (7)	\$183,735 (9)	\$10,920 (28)
9	Mississippi	\$1,297,564	\$95,886 (14)	\$906,705 (14)	\$122,394 (5)	\$161,013 (1)	\$11,565 (32)
10	Alabama	\$1,305,465	\$94,974 (13)	\$898,080 (13)	\$123,213 (6)	\$177,525 (5)	\$11,674 (33)
11	North Dakota	\$1,311,675	\$88,105 (3)	\$833,127 (3)	\$152,843 (23)	\$226,762 (32)	\$10,838 (27)
12	Idaho	\$1,326,531	\$94,173 (11)	\$890,511 (11)	\$139,159 (14)	\$193,123 (14)	\$9,565 (11)
13	Virginia	\$1,358,856	\$91,418 (8)	\$864,459 (8)	\$128,766 (9)	\$264,351 (43)	\$9,861 (16)

14	Arkansas	\$1,362,519	\$102,531 (22)	\$969,546 (22)	\$112,122 (2)	\$168,357 (2)	\$9,962 (19)
15	Indiana	\$1,388,677	\$100,335 (18)	\$948,775 (18)	\$131,814 (11)	\$198,847 (16)	\$8,905 (5)
16	Kansas	\$1,392,642	\$97,673 (15)	\$923,603 (15)	\$147,284 (19)	\$211,638 (24)	\$12,444 (36)
17	Wyoming	\$1,393,990	\$94,937 (12)	\$897,728 (12)	\$153,921 (24)	\$237,668 (35)	\$9,736 (13)
18	Oklahoma	\$1,407,926	\$102,327 (21)	\$967,610 (21)	\$136,245 (12)	\$188,639 (10)	\$13,106 (42)
19	Nevada	\$1,413,733	\$99,143 (16)	\$937,509 (16)	\$154,250 (25)	\$212,996 (25)	\$9,834 (14)
20	Nebraska	\$1,430,473	\$99,143 (16)	\$937,509 (16)	\$168,249 (33)	\$213,792 (26)	\$11,780 (34)
21	Florida	\$1,453,333	\$103,276 (23)	\$976,587 (23)	\$163,277 (31)	\$192,625 (13)	\$17,569 (51)
22	Ohio	\$1,466,537	\$105,603 (24)	\$998,590 (24)	\$154,322 (26)	\$199,304 (18)	\$8,719 (3)
23	Colorado	\$1,467,140	\$101,098 (19)	\$955,992 (19)	\$155,007 (27)	\$242,548 (37)	\$12,495 (38)
24	Oregon	\$1,478,915	\$106,236	\$1,004,575	\$152,750	\$206,126	\$9,228

24	Oregon	\$1,478,313	(25)	(25)	(22)	(23)	(7)
25	Iowa	\$1,502,649	\$107,799 (27)	\$1,019,361 (27)	\$150,567 (21)	\$215,081 (28)	\$9,840 (15)
26	California	\$1,512,519	\$101,917 (20)	\$963,737 (20)	\$182,119 (38)	\$250,875 (42)	\$13,871 (47)
27	Texas	\$1,515,958	\$107,278 (26)	\$1,014,432 (26)	\$163,066 (30)	\$214,510 (27)	\$16,671 (50)
28	South Dakota	\$1,532,326	\$110,406 (29)	\$1,044,005 (29)	\$162,676 (29)	\$205,379 (22)	\$9,861 (17)
29	Montana	\$1,570,221	\$117,200 (31)	\$1,108,254 (31)	\$144,070 (16)	\$190,805 (12)	\$9,892 (18)
30	New Mexico	\$1,570,517	\$117,963 (32)	\$1,115,471 (32)	\$143,615 (15)	\$183,469 (7)	\$9,999 (20)
31	Delaware	\$1,578,303	\$108,302 (28)	\$1,024,114 (28)	\$191,345 (39)	\$245,742 (39)	\$8,800 (4)
32	Michigan	\$1,618,008	\$120,849 (36)	\$1,142,755 (36)	\$145,008 (18)	\$200,275 (19)	\$9,122 (6)
33	Utah	\$1,639,415	\$118,187 (33)	\$1,117,583 (33)	\$144,716 (17)	\$244,172 (38)	\$14,758 (49)
34	Pennsylvania	\$1,647,463	\$120,309 (34)	\$1,137,650 (34)	\$163,282 (32)	\$216,709 (30)	\$9,513 (10)

35	New Hampshire	\$1,665,509	\$113,086 (30)	\$1,069,352 (30)	\$203,236 (43)	\$269,223 (44)	\$10,612 (25)
36	Arizona	\$1,677,137	\$125,688 (38)	\$1,188,521 (38)	\$149,071 (20)	\$203,706 (21)	\$10,150 (21)
37	Maine	\$1,680,849	\$121,537 (37)	\$1,149,268 (37)	\$201,575 (42)	\$199,120 (17)	\$9,349 (8)
38	Maryland	\$1,782,364	\$120,439 (35)	\$1,138,882 (35)	\$208,567 (45)	\$302,528 (51)	\$11,948 (35)
39	Illinois	\$1,828,314	\$134,922 (39)	\$1,275,830 (39)	\$173,100 (34)	\$233,237 (34)	\$11,225 (30)
40	Wisconsin	\$1,867,305	\$140,171 (42)	\$1,325,469 (42)	\$177,071 (37)	\$215,171 (29)	\$9,424 (9)
41	Vermont	\$1,945,299	\$143,131 (43)	\$1,353,457 (43)	\$215,858 (46)	\$222,144 (31)	\$10,710 (26)
42	District of Columbia	\$1,949,488	\$136,113 (40)	\$1,287,095 (40)	\$231,274 (47)	\$282,479 (47)	\$12,528 (39)
43	New Jersey	\$1,953,106	\$138,272 (41)	\$1,307,514 (41)	\$200,823 (41)	\$294,013 (50)	\$12,484 (37)
44	Washington	\$1,954,162	\$145,476 (45)	\$1,375,636 (45)	\$176,558 (36)	\$246,000 (40)	\$10,492 (24)
45	Minnesota	\$1,973,941	\$145,458	\$1,375,460	\$192,062	\$248,178	\$12,783

45	MINNESOTA	\$1,575,541	(44)	(44)	(40)	(41)	(40)
46	Rhode Island	\$2,088,485	\$153,537 (47)	\$1,451,855 (47)	\$239,578 (48)	\$230,206 (33)	\$13,310 (43)
47	Connecticut	\$2,138,139	\$152,848 (46)	\$1,445,342 (46)	\$241,423 (50)	\$285,188 (48)	\$13,338 (44)
48	Hawaii	\$2,186,781	\$164,538 (49)	\$1,555,886 (49)	\$175,171 (35)	\$278,260 (46)	\$12,927 (41)
49	Alaska	\$2,243,640	\$165,692 (50)	\$1,566,799 (50)	\$207,792 (44)	\$293,062 (49)	\$10,294 (22)
50	Massachusetts	\$2,269,056	\$163,458 (48)	\$1,545,676 (48)	\$269,447 (51)	\$276,812 (45)	\$13,663 (45)
51	New York	\$2,452,735	\$187,379 (51)	\$1,771,868 (51)	\$240,162 (49)	\$239,443 (36)	\$13,883 (48)

## Costs per Year

Overall	State	Total Cost	Out-of-Pocket	Financial Opportunity	Health-Care Cost	Income Loss per	Other Costs per
---------	-------	------------	---------------	-----------------------	------------------	-----------------	-----------------

Rank	State	per Smoker	Cost (Rank)	Cost (Rank)	per Smoker (Rank)	per Smoker (Rank)	per Smoker (Rank)
1	Louisiana	\$24,160	\$1,724 (2)	\$16,305 (2)	\$2,262 (4)	\$3,599 (8)	\$270 (46)
2	Kentucky	\$24,279	\$1,765 (6)	\$16,691 (6)	\$2,186 (1)	\$3,467 (4)	\$170 (2)
3	Missouri	\$24,596	\$1,662 (1)	\$15,715 (1)	\$3,185 (28)	\$3,821 (15)	\$214 (29)
4	West Virginia	\$24,625	\$1,777 (7)	\$16,802 (7)	\$2,568 (10)	\$3,326 (3)	\$152 (1)
5	North Carolina	\$24,771	\$1,737 (4)	\$16,422 (4)	\$2,672 (13)	\$3,735 (11)	\$205 (23)
6	Georgia	\$24,928	\$1,749 (5)	\$16,543 (5)	\$2,466 (8)	\$3,947 (20)	\$223 (31)
7	Tennessee	\$25,078	\$1,826 (10)	\$17,268 (10)	\$2,227 (3)	\$3,570 (6)	\$188 (12)
8	South Carolina	\$25,281	\$1,820 (9)	\$17,212 (9)	\$2,432 (7)	\$3,603 (9)	\$214 (28)
9	Mississippi	\$25,442	\$1,880 (14)	\$17,779 (14)	\$2,400 (5)	\$3,157 (1)	\$227 (32)
			\$1,867	\$17,609	\$2,416	\$3,491	\$229

10	Alabama	\$25,597	\$1,802 (13)	\$17,000 (13)	\$2,710 (6)	\$3,701 (5)	\$220 (33)
11	North Dakota	\$25,719	\$1,728 (3)	\$16,336 (3)	\$2,997 (23)	\$4,446 (32)	\$213 (27)
12	Idaho	\$26,010	\$1,847 (11)	\$17,461 (11)	\$2,729 (14)	\$3,787 (14)	\$188 (11)
13	Virginia	\$26,644	\$1,793 (8)	\$16,950 (8)	\$2,525 (9)	\$5,183 (43)	\$193 (16)
14	Arkansas	\$26,716	\$2,010 (22)	\$19,011 (22)	\$2,198 (2)	\$3,301 (2)	\$195 (19)
15	Indiana	\$27,229	\$1,967 (18)	\$18,603 (18)	\$2,585 (11)	\$3,899 (16)	\$175 (5)
16	Kansas	\$27,307	\$1,915 (15)	\$18,110 (15)	\$2,888 (19)	\$4,150 (24)	\$244 (36)
17	Wyoming	\$27,333	\$1,862 (12)	\$17,603 (12)	\$3,018 (24)	\$4,660 (35)	\$191 (13)
18	Oklahoma	\$27,606	\$2,006 (21)	\$18,973 (21)	\$2,671 (12)	\$3,699 (10)	\$257 (42)
19	Nevada	\$27,720	\$1,944 (16)	\$18,383 (16)	\$3,025 (25)	\$4,176 (25)	\$193 (14)
20	Nebraska	\$28,048	\$1,944 (16)	\$18,383 (16)	\$3,299 (33)	\$4,192 (26)	\$231 (34)

21	Florida	\$28,497	\$2,025 (23)	\$19,149 (23)	\$3,202 (31)	\$3,777 (13)	\$344 (51)
22	Ohio	\$28,756	\$2,071 (24)	\$19,580 (24)	\$3,026 (26)	\$3,908 (18)	\$171 (3)
23	Colorado	\$28,767	\$1,982 (19)	\$18,745 (19)	\$3,039 (27)	\$4,756 (37)	\$245 (38)
24	Oregon	\$28,998	\$2,083 (25)	\$19,698 (25)	\$2,995 (22)	\$4,042 (23)	\$181 (7)
25	Iowa	\$29,464	\$2,114 (27)	\$19,987 (27)	\$2,952 (21)	\$4,217 (28)	\$193 (15)
26	California	\$29,657	\$1,998 (20)	\$18,897 (20)	\$3,571 (38)	\$4,919 (42)	\$272 (47)
27	Texas	\$29,725	\$2,103 (26)	\$19,891 (26)	\$3,197 (30)	\$4,206 (27)	\$327 (50)
28	South Dakota	\$30,046	\$2,165 (29)	\$20,471 (29)	\$3,190 (29)	\$4,027 (22)	\$193 (17)
29	Montana	\$30,789	\$2,298 (31)	\$21,730 (31)	\$2,825 (16)	\$3,741 (12)	\$194 (18)
30	New Mexico	\$30,794	\$2,313 (32)	\$21,872 (32)	\$2,816 (15)	\$3,597 (7)	\$196 (20)
31	Delaware	\$30,917	\$2,124	\$20,081	\$3,752	\$4,818	\$173

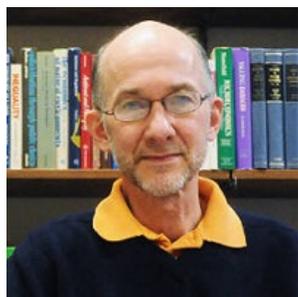
31	Delaware	\$30,547	(28)	(28)	(39)	(39)	(4)
32	Michigan	\$31,726	\$2,370 (36)	\$22,407 (36)	\$2,843 (18)	\$3,927 (19)	\$179 (6)
33	Utah	\$32,145	\$2,317 (33)	\$21,913 (33)	\$2,838 (17)	\$4,788 (38)	\$289 (49)
34	Pennsylvania	\$32,303	\$2,359 (34)	\$22,307 (34)	\$3,202 (32)	\$4,249 (30)	\$187 (10)
35	New Hampshire	\$32,657	\$2,217 (30)	\$20,968 (30)	\$3,985 (43)	\$5,279 (44)	\$208 (25)
36	Arizona	\$32,885	\$2,464 (38)	\$23,304 (38)	\$2,923 (20)	\$3,994 (21)	\$199 (21)
37	Maine	\$32,958	\$2,383 (37)	\$22,535 (37)	\$3,952 (42)	\$3,904 (17)	\$183 (8)
38	Maryland	\$34,948	\$2,362 (35)	\$22,331 (35)	\$4,090 (45)	\$5,932 (51)	\$234 (35)
39	Illinois	\$35,849	\$2,646 (39)	\$25,016 (39)	\$3,394 (34)	\$4,573 (34)	\$220 (30)
40	Wisconsin	\$36,614	\$2,748 (42)	\$25,990 (42)	\$3,472 (37)	\$4,219 (29)	\$185 (9)
41	Vermont	\$38,143	\$2,806 (43)	\$26,538 (43)	\$4,233 (46)	\$4,356 (31)	\$210 (26)

42	District of Columbia	\$38,225	\$2,669 (40)	\$25,237 (40)	\$4,535 (47)	\$5,539 (47)	\$246 (39)
43	New Jersey	\$38,296	\$2,711 (41)	\$25,638 (41)	\$3,938 (41)	\$5,765 (50)	\$245 (37)
44	Washington	\$38,317	\$2,852 (45)	\$26,973 (45)	\$3,462 (36)	\$4,824 (40)	\$206 (24)
45	Minnesota	\$38,705	\$2,852 (44)	\$26,970 (44)	\$3,766 (40)	\$4,866 (41)	\$251 (40)
46	Rhode Island	\$40,951	\$3,011 (47)	\$28,468 (47)	\$4,698 (48)	\$4,514 (33)	\$261 (43)
47	Connecticut	\$41,924	\$2,997 (46)	\$28,340 (46)	\$4,734 (50)	\$5,592 (48)	\$262 (44)
48	Hawaii	\$42,878	\$3,226 (49)	\$30,508 (49)	\$3,435 (35)	\$5,456 (46)	\$253 (41)
49	Alaska	\$43,993	\$3,249 (50)	\$30,722 (50)	\$4,074 (44)	\$5,746 (49)	\$202 (22)
50	Massachusetts	\$44,491	\$3,205 (48)	\$30,307 (48)	\$5,283 (51)	\$5,428 (45)	\$268 (45)
51	New York	\$48,093	\$3,674 (51)	\$34,743 (51)	\$4,709 (49)	\$4,695 (36)	\$272 (48)

# Ask the Experts

As studies have shown, the negative physical and financial effects of smoking can be significant. To advance the discussion, we asked a panel of experts to share their insight regarding smoking-cessation programs, e-cigarettes and other smoking-related concerns. Click on the experts' profiles to read their bios and responses to the following key questions:

1. What are the most effective strategies for individuals trying to quit smoking? What approaches typically fail?
2. Should e-cigarettes be regulated and taxed as cigarettes or as medical devices?
3. How can state and local authorities encourage people to quit smoking? Is there a role for employers, health insurance companies?



## Roger Feldman

Professor of Health Policy & Management in the School of Public Health at University of Minnesota



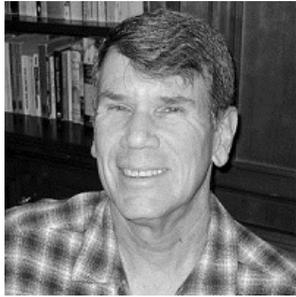
## Julian Reif

Assistant Professor of Finance and Economics in the Department of Finance and in the Institute of Government and Public Affairs at University of Illinois at Urbana-Champaign



## John G. Spangler

Professor of Family & Community Medicine at Wake Forest Baptist Medical Center



### Michael Grossman

Distinguished Professor of Economics at The City University of New York Graduate Center, and Research Associate and Health Economics Program Director at the National Bureau of Economic Research



### Jonathan Gruber

Ford Professor of Economics at Massachusetts Institute of Technology



### John Hughes

Professor in the Department of Psychological Science, and Faculty in the Behavioral Pharmacology of Drug Dependence Training Program at University of Vermont



### James Bailey

Assistant Professor of Economics in the Heider College of Business at Creighton University



### Donald Kenkel

Joan K. and Irwin M. Jacobs Professor in the College of Human Ecology at Cornell University



### Freda Patterson

Assistant Professor of Health Promotion in the Department of Behavioral Health and Nutrition at University of Delaware



### **Robert A. Schnoll**

Associate Professor in the Department of Psychiatry and Co-leader of the Tobacco & Environmental Carcinogenesis Program in the Abramson Cancer Center at University of Pennsylvania



### **James D. Sargent**

Professor of Community and Family Medicine in the Geisel School of Medicine, and Co-Director of the Cancer Control Research Program in the Norris Cotton Cancer Center at Dartmouth College



### **Graham A. Colditz**

Niess-Gain Professor of Surgery in the School of Medicine, and Associate Director of Prevention and Control in the Siteman Cancer Center at Washington University in St. Louis



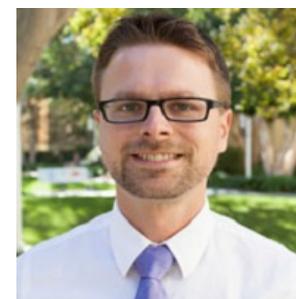
### **Andrea King**

Professor in the Department of Psychiatry & Behavioral Neuroscience, and Director of the Clinical Addictions Research Laboratory at University of Chicago



### **Adam Leventhal**

Associate Professor of Preventive Medicine and Psychology in the Norris Comprehensive Cancer Center, and Director of the Health, Emotion, & Addiction Laboratory at University of Southern California, Keck School of Medicine



### **Daniel Tomaszewski**

Assistant Professor in the School of Pharmacy at Chapman University



### **Deric R. Kenne**

Assistant Professor of Health Policy & Management, and Associate Director of Drug Research in The Center for Public Policy & Health at Kent State University, College of Public Health



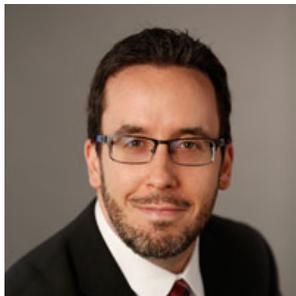
### **Fiorentina Angjellari-Dajci**

Professor of Economics in the School of Arts and Sciences at Florida State College at Jacksonville



### **Lauren Hersch Nicholas**

Assistant Professor of Health Policy & Management in the Bloomberg School of Public Health at Johns Hopkins University

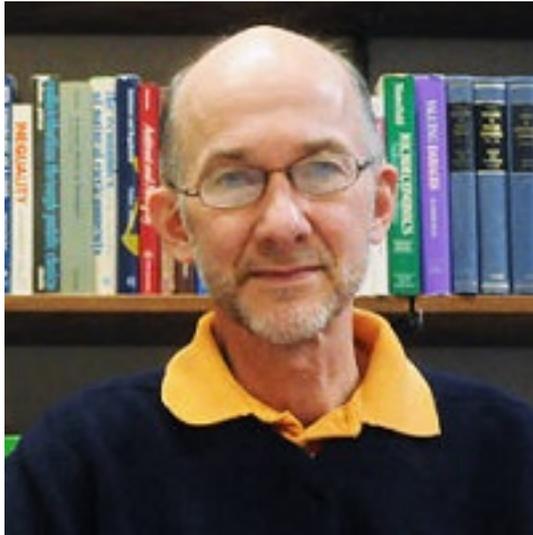


### **Etienne Gaudette**

Research Assistant Professor in the Schaeffer Center for Health Policy & Economics, and Policy Director of the Roybal Center for Health Policy Simulation at University of Southern California

## Roger Feldman

Professor of Health Policy & Management in the School of Public Health at University of Minnesota



### **What are the most effective strategies for individuals trying to quit smoking? What approaches typically fail?**

The most effective strategy to reduce smoking is to raise the price of the tobacco product. This has been demonstrated repeatedly, with a typical estimate that a 1% price hike would reduce smoking by 1%. Clean indoor acts have been shown to be successful in the US and other countries. Physician counseling is also effective.

I would say that the least successful program, on the margin, is further publicity over the health harms from smoking. Everyone knows that smoking is harmful to your health. This does not mean that the money spent to date on publicity was wasted -- only that further spending would have a low marginal benefit.

### **Should e-cigarettes be regulated and taxed as cigarettes or as medical devices?**

The largest external cost from smoking is harm to an unborn infant when the mother smokes. This is due to nicotine in the smoke. Because e-cigarettes are "nicotine delivery devices," we should expect the same harm. Thus, I believe that e-cigarettes should be regulated and taxed as tobacco products.

### **How can state and local authorities encourage people to quit smoking? Is there a role for employers?**

## Health insurance companies?

States can raise the price of cigarettes through taxes. But there is a problem when a high-tax state is located next to a low-tax state: people will smuggle cigarettes across the border. Therefore, the federal government can encourage states to develop "smoking compacts" to raise their taxes in tandem.

Employers can play a role by offering smoke-free environments and discounts on health insurance for non-smokers. Insurers can play a role by educating physicians to include no-smoking advice in their consults with patients and by covering those visits with low patient cost-sharing.

---

## Julian Reif

Assistant Professor of Finance and Economics in the Department of Finance and in the Institute of Government and Public Affairs at University of Illinois at Urbana-Champaign



### **Should e-cigarettes be regulated and taxed as cigarettes or as medical devices?**

There are several different arguments for regulating and taxing cigarettes. Cigarettes generate second-hand smoke, which is unpleasant and perhaps even harmful to people in a smoker's vicinity. Smoking also imposes financial costs on some public healthcare programs such as Medicaid. Finally, some argue that many smokers do not properly account for the long-term consequences of their smoking, and thus would actually benefit from regulations that reduce their cigarette consumption.

However, there is a fairly strong consensus that the external costs (both physical and financial) attributable to cigarettes is small, likely significantly smaller than the revenue brought in by current cigarette tax rates (one, rather morbid, reason for this is the fact that smokers die about six years earlier than non-smokers, which reduces costs for Social Security and Medicare). Thus, the main remaining justification for the current level of cigarette taxes is a paternalistic one: cigarette taxes benefit the smokers themselves. This is difficult to prove, however.

The health consequences of e-cigarettes are not well understood yet, but the initial evidence suggests that they may be less harmful than traditional cigarettes. If true, this argues for lower taxes on e-cigarettes than traditional cigarettes.

### **How can state and local authorities encourage people to quit smoking? Is there a role for employers? Health insurance companies?**

One of the most effective ways to encourage people to quit smoking is by increasing the price of cigarettes. Although other regulations such as smoking bans have also been shown to successfully reduce smoking rates, taxation has two distinct advantages: It generates revenue, and also allows those who greatly enjoy smoking to continue doing so, albeit at a higher cost.

Cigarette taxes are levied by state and local authorities. Health insurance companies cannot directly increase the price of cigarettes, but many do charge higher premiums to smokers. This is attractive to insurers because it allows them to recoup some of the extra insurance costs associated with the smokers, and -- if one believes smokers make poor decisions -- can even benefit the smokers themselves by encouraging them to quit smoking.

## John G. Spangler

Professor of Family & Community Medicine at Wake Forest Baptist Medical Center



### **What are the most effective strategies for individuals trying to quit smoking? What approaches typically fail?**

Strong scientific evidence shows that using medications is one of the best ways to quit smoking. Medications double or triple your success rate. The two categories of medication are the nicotine products (patch, gum, lozenge, inhaler and nose spray); and the non-nicotine products (Chantix, bupropion or Wellbutrin, clonidine and nortriptyline). Combining nicotine with the non-nicotine products (except Chantix) increases your success even more. All of the non-nicotine products require a prescription, as do the nicotine inhaler and nicotine nose spray.

Making a quit plan is also crucial.

Set a quit date. It should be within the next week so that you will capitalize on your current motivation. Write it down on your calendar. Tell everyone!

Purchase your medication. If you use prescription medication, your doctor will tell you if you need to start your medication before your quit date. Some people taper down on cigarettes during this time, but you do not have to quit until your quit date, unless you feel really motivated to do so.

Get support. Tell family and friends about your quitting. Find a “cheerleader” who will encourage you if you trip up. You do not need a “drill sergeant” who will criticize any setbacks. Sometimes your cheerleader could be your spouse. Sometimes a spouse is the worst choice because they can be so emotionally invested in your quitting. Discuss with your cheerleader the reasons why you want to quit. Write these reasons down and place them on your refrigerator door or bathroom mirror so that you will be reminded of them every day.

Get resources. Call 1-800-QUITNOW, which can put you in touch with a trained quit coach. Check out [smokefree.gov](http://smokefree.gov). Look for apps on smoking cessation. Find information online that can give you ideas of what to do when you crave, or are irritable, or stressed — or when you face any of your smoking triggers like first thing in the morning, or coffee or alcohol.

Throw away all cigarettes or tobacco products! This is extremely important. Hiding cigarettes to have on hand “Just in case” makes it too easy to reach for them when the going gets tough. The longer it takes you to get to a cigarette when you crave, the more likely that craving will go away on its own. Don’t make it easy to get cigarettes.

Quit on your quit day. Use lots of nicotine first thing in the morning. Use the quit strategies you have found online or from your 1-800-QUITNOW coach. Keep in touch with your cheerleader.

A word about e-cigarttes: We do not know the long term problems that might be associated with using e-cigs. Also, some e-cigs have contaminants in them. On the other hand, some studies have shown that they might help some people quit, and some smokers have found that they are helpful. Like many things in life, you have to weigh the risks versus the benefits. Unfortunately, we are not yet certain what the risks might be.

## How can state and local authorities encourage people to quit smoking? Is there a role for employers? Health insurance companies?

The biggest ways states and local authorities can help people quit smoking are funding smoking cessation programs that can encourage people to quit (advertising for example); and funding ways that can help people quit like offering free or reduced cost nicotine products or providing quit classes.

Employers can also play a part. First, develop a tobacco-free work place, with no smoking or other tobacco use allowed on company property. Employees would then have to leave the property to smoke. All hospitals in North Carolina have adopted this policy. Even RJ Reynolds Tobacco Company has gone tobacco-free at work. If they can do it, any company can. Second, offer quit classes on the clock so that workers can feel supported in their quit attempts. If possible, these classes should provide free or reduced cost nicotine. The CDC has an excellent workplace health promotion program that measures cost, productivity and health outcomes.

Employers should recognize that, according to the CDC, men who smoke use 4 more sick days per year than those who do not smoke. Women use 2 more sick days per year. Additionally, “Of the U.S. adults who smoke, men incur \$15,800 and women incur \$17,500 more in lifetime medical expenses than men and women who do not smoke (in 2002 dollars).”

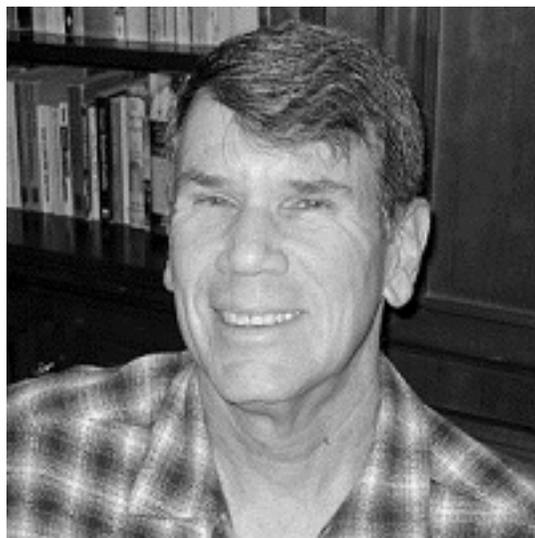
Health insurance companies can charge higher premiums for smokers, but they should also provide incentives for smoking cessation. For example, tobacco cessation medications should either be available with no copay or with very nominal copays. Rewards should also be given—and not just for smokers, or else non-smokers might be left out. Provide gym membership to help people make behavior changes, and give incentives (like grocery or gas gift cards) for reaching certain milestones. Providing quit coaches,

smoking cessation classes and other support can also be very helpful.

---

## Michael Grossman

Distinguished Professor of Economics at The City University of New York Graduate Center, and Research Associate and Health Economics Program Director at the National Bureau of Economic Research



### **What are the most effective strategies for individuals trying to quit smoking? What approaches typically fail?**

My own research and that by other economists have shown that tax hikes are effective in discouraging smoking. For example, Ted Joyce, Greg Colman, and I find that a 10 percent increase in price induces almost 10 percent of pregnant women to quit smoking. This effect compares favorably to the change in quit rates achieved by prenatal smoking cessation programs. A meta-analysis of prenatal smoking interventions found that quit probabilities were approximately 7 percentage points greater for those in treatment relative to control groups. To cite another example, Philip DeCicca and Logan McLeod find that a \$1 increase in the excise tax on cigarettes lowers the proportion of daily smokers ages 45-64 by almost 6 percent. Since very few people begin to smoke after the age of 21, almost all of this reduction is due to quits by daily smokers. There is a large literature dealing with interventions that encourage people to quit smoking. Much of it consists of randomized controlled trials characterized by small samples and with findings that may or may not generalize to the population at large.

### **Should e-cigarettes be regulated and taxed as cigarettes or as medical devices?**

Much more research is required before this question can be answered. The regulatory debate centers on possible harm reduction. That is whether Electronic Nicotine Delivery Systems (ENDS, of which e-cigarettes are the oldest form) constitute a safer, if not a completely safe, alternative to smoking which is responsible for almost half a million deaths annually. For some current smokers, ENDS may assist them to reduce or quit smoking. However, ENDS could prolong a smoker's nicotine addiction, and particularly for youths, may entice new initiates and create new nicotine addicts who may eventually transition into smoking. The FDA acknowledges both sides of the debate, but underscores that the "scientific evidence remains as yet unclear what the public health impact will be from products such as ENDS. The FDA further notes, "It is not known whether ENDS may lead young people to try other tobacco products, including conventional cigarettes." Very little reliable evidence therefore exists at present to support any argument for or against ENDS. Thus, research is required to inform how ENDS advertising, ENDS prices, cigarette taxes, and other regulatory policies affect demand for ENDS products and transitions to and from other nicotine products. There is one very recent published study by Abby Friedman in the Journal of Health Economics that finds that bans on e-cigarette sales to minors encourage youths to smoke conventional cigarettes. In addition, research on the health effects of e-cigarettes by epidemiologists and physicians is required to answer your question.

### **How can state and local authorities encourage people to quit smoking? Is there a role for employers? Health insurance companies?**

Tax hikes are effective as I indicated in my response to the first question. One often hears about proposals that encourage employers and health insurance companies to fund programs that encourage smokers to quit. How about the converse: encouraging employers and health insurance companies to raise premiums paid by smokers.

## Jonathan Gruber

Ford Professor of Economics at Massachusetts Institute of Technology



### **What are the most effective strategies for individuals trying to quit smoking? What approaches typically fail?**

The most scientifically validated approaches are ones that involve future commitment - e.g., that force the smoker to pay a price if they continue to smoke. For example, the smoker commits to rip up a dollar every time they light up. The problem with these, of course, is that smokers can cheat. This is why ultimately the best strategy is to raise the price of cigarettes, which has been shown to sharply reduce smoking.

### **Should e-cigarettes be regulated and taxed as cigarettes or as medical devices?**

E-cigs should clearly be regulated - they are a medical device with potentially harmful consequences. Whether they should be taxed is harder, because unlike cigarettes they are not harming others, just oneself. I would argue that due to consumer mistakes and self-control problems we should tax e-cigs to some extent even if they harm one-self. But that is more controversial within economics.

### **How can state and local authorities encourage people to quit smoking? Is there a role for employers? Health insurance companies?**

By far the most well validated approach to reducing smoking is cigarette taxation. This provides the

commitment that folks are often unable to effectively impose on themselves. There is also a role for employers and insurers to use higher insurance premiums on smokers in the same way.

---

## John Hughes

Professor in the Department of Psychological Science, and Faculty in the Behavioral Pharmacology of Drug Dependence Training Program at University of Vermont



### **What are the most effective strategies for individuals trying to quit smoking? What approaches typically fail?**

First line medications are a) nicotine patch plus nicotine gum/lozenge or b) varenicline. Other medications that are effective are nicotine gum, patch, lozenge, mouthspray and inhaler – all used alone, as well as bupropion. Best to combine meds and counseling. Best counseling is via phone, group or individual, in person. Use of websites or pamphlets are less effective. About 25% of smokers use a medication when they try to quit and about 5% use counseling. Quitting without any treatment is most common method but has worst outcome. Abrupt cessation appears better than gradual cessation.

### **Should e-cigarettes be regulated and taxed as cigarettes or as medical devices?**

Most agree they should, but, given the high likelihood they are safer than cigarettes and can help smokers quit, many believe they should a) have less onerous hurdles for approval and b) be taxed at smaller rate than tobacco cigarettes.

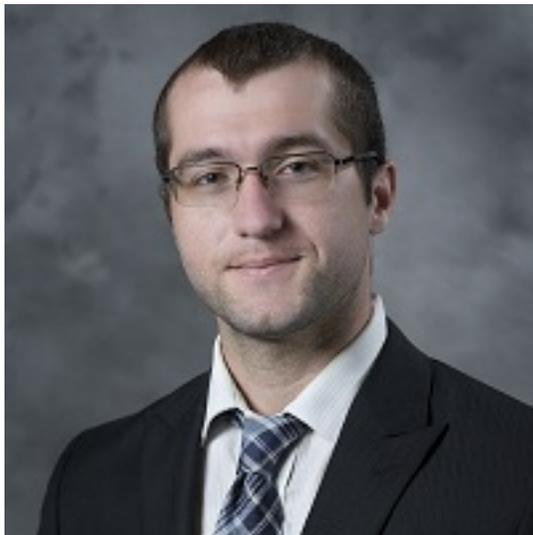
## **How can state and local authorities encourage people to quit smoking? Is there a role for employers? Health insurance companies?**

Increased taxes, smoking restrictions, and media are strong methods to increase quit attempts. Many states provide free stop smoking medications which increases quit attempts. Medical and health insurance entities that have their facilities set up methods to identify smokers and then proactively contact them about quitting or make sure this is done at medical visit increases quitting. Employees that provide a wide range of treatment options with no or low co-pays increase quit attempts.

---

### **James Bailey**

Assistant Professor of Economics in the Heider College of Business at Creighton University



### **Should e-cigarettes be regulated and taxed as cigarettes or as medical devices?**

Tobacco is an obsolete and dangerous delivery mechanism for nicotine; nicotine itself is relatively safe. Regulators should tax and regulate e-cigarettes lightly and allow them to continue to displace much more dangerous traditional cigarettes.

### **How can state and local authorities encourage people to quit smoking? Is there a role for employers? Health insurance companies?**

Cigarettes are like any other good: when the price goes up, people buy less. High taxes on cigarettes have increased their price and driven many people to quit. Health insurance companies do something similar by charging smokers higher premiums.

---

## Donald Kenkel

Joan K. and Irwin M. Jacobs Professor in the College of Human Ecology at Cornell University



### **Should e-cigarettes be regulated and taxed as cigarettes or as medical devices?**

Neither. The best way to save lives might be to continue to allow e-cigarettes to be sold without special taxes and without burdensome regulations. Smoking tobacco cigarettes is estimated to result in 480,000 deaths per year in the U.S. Smoking is dangerous because of the toxicants produced by burning tobacco. E-cigarettes do not involve burning tobacco, so vaping poses much, much lower risks than smoking. Vaping appears to be a substitute for smoking: many smokers use e-cigarettes as a way to cut down and even quit smoking tobacco cigarettes. Allowing smokers to continue to easily switch to vaping could facilitate a revolutionary and life-saving change in the U.S. market for tobacco products.

---

## Freda Patterson

Assistant Professor of Health Promotion in the Department of Behavioral Health and Nutrition at University of Delaware



## What are the most effective strategies for individuals trying to quit smoking?

Cigarette smoking and exposure to smoke cause almost half a million premature deaths in the United States every year and is a leading cause of several illnesses including cancer and heart disease. Currently, an estimated 16.8% of American adults are current smokers and this rate climbs to as high as 50% in adults with lower education and income levels. In the United States, up to 18% of health care costs can be attributable to the negative health effects of smoking.

There are several medication based treatments for smoking cessation that have been approved by the FDA including nicotine replacement therapies (NRT; e.g., nicotine patch, lozenge, gum and spray) and the two non-nicotine treatments: bupropion and Chantix. Use of any of these treatments with behavioral counseling can double a treatment seeking smoker's chances of successfully quitting smoking. Recent data published by the US Preventative Services Task Force showed that absolute cessation differences averaged 7% more for NRT, 8.2% more for bupropion and 26% more for varenicline than not using any medication after 6 or more months from the quit date.

Smoking cessation rates can be increased further by combining quit medications. For example, combining a form of nicotine replacement therapy (i.e., the patch) with bupropion will increase quit rates more than using either treatment alone.

## What approaches typically fail?

Dependence on nicotine – the addictive ingredient in cigarettes – is both a learned behavioral habit as well as a physical addiction. Across time, smokers develop smoking patterns. For example, nearly always having a cigarette with coffee or after eating or when feeling sad. These situations become cues or triggers to smoke. One of the most common pitfalls that smokers make is to not to fully address this aspect of their addiction to smoking. Relapse to former smoking habits after quitting nearly always happens because of not having a plan in place to manage these situational or environmental cues to smoke.

The other dimension of nicotine dependence is the physical reliance on nicotine that causes those uncomfortable withdrawal symptoms when a smoker does not smoke. The stop smoking medications – NRT's, Chantix and bupropion – are all quite effective in different ways in curbing these withdrawal symptoms. Sometimes, smokers may have an expectation that these medications will take away all withdrawal discomfort entirely – unfortunately, this is not usually the case! Expecting some level of withdrawal discomfort, especially in those first days and early weeks of quitting can help a smoker be more prepared. The good news is that smokers who have 2 full weeks of not even having one puff of a cigarette after quitting are substantially more likely to still be quit at 6 months. Having a plan for staying quit is vital to success – especially for those first few weeks.

People who fail to quit typically do so because they do not have a plan in place for how they are going to deal with the situational or environmental triggers to smoke and the physical discomfort from withdrawal. Only between 1-3% of smokers who quit “cold turkey” like this can expect to be successful.

### **Should e-cigarettes be regulated and taxed as cigarettes or as medical devices?**

The European approach to regulate e-cigarettes as a tobacco product unless they contain over 20 mg/ml of nicotine, in which case they are regulated as medical devices, seems appropriate. My understanding is that

this policy will go into effect later this year.

## **How can state and local authorities encourage people to quit smoking? Is there a role for employers? Health insurance companies?**

There are several important ways that state and local authorities can encourage people to quit smoking. First, they can offer a quit line and pharmacotherapy for treatment seeking smokers. The state of Oregon, for example, tested the effects of providing a free 2-week supply of nicotine patch to smokers who called into the state quit line. Their results showed that recipients of this patch starter kit were about twice as likely to quit smoking.

Second, state and local authorities can expand and provide incentives for smoking bans and increasing the cost of cigarettes. Bans on cigarette smoking in public places have been successful in decreasing smoking behavior, second-hand smoke exposure and the negative health outcomes of smoking. Increasing taxes on cigarettes and other tobacco products also reduces smoking behavior. For example, a 10% tax-induced cigarette price increase reduces smoking prevalence by between 4% and 8%. It is important, though, that these policy measures, that might be seen as some as punitive, be accompanied with support and resources for smoking reduction and cessation.

Each year, the productivity losses caused by smoking are an estimated US\$151 billion dollars, most of which are shouldered by employers. To help employees quit, worksites can offer free employee smoking cessation programs that offer individual and group counseling as well as pharmacotherapy. Providing financial incentives for smoking cessation is emerging as a component of work-site cessation programs. There is some evidence that providing rewards may increase cessation program enrollment and short-term quitting, however, more information about this approach is needed before it can be considered part of best

practices.

Health insurance companies can offer free smoking cessation services and expand their coverage for pharmacotherapy (NRT, Chantix, bupropion) for all group members. They can also support a culture of health where all health care providers (HCP; not just Physicians) ask patients about their smoking status and provide recommendations and referrals to cessation services for those who smoke. Patients who receive assistance and referrals to smoking cessation services from their HCP are more likely to quit; the problem is that only about half of smokers report getting cessation advice from their provider. Health insurance companies can be instrumental in facilitating all HCP to provide cessation advice and referrals.

---

## Robert A. Schnoll

Associate Professor in the Department of Psychiatry and Co-leader of the Tobacco & Environmental Carcinogenesis Program in the Abramson Cancer Center at University of Pennsylvania



### **What are the most effective strategies for individuals trying to quit smoking? What approaches typically fail?**

The most effective way to help smokers quit, based on reviews and summaries of rigorous, controlled clinical trials, is to combine a structured, formal behavioral counseling intervention (now, ubiquitously provided through state quit-lines) and an FDA-approved medication (nicotine replacement therapy, bupropion, or varenicline). With regard to medications, there is good evidence to indicate that varenicline is the most effective. However, upwards of two thirds of smokers trying to quit using

such evidence-based treatments relapse back to smoking within 6-months of their quit attempt. If you assess Cochrane Reviews and the USDHHS review (Fiore et al., 2008), there is some evidence for the following modifications to treatment: 1) combination medications; 2) pre-cessation treatment; and 3) extended duration treatment. We have also shown recently that quit rates can be increased if you personalize the selection of medications based on the individual smoker's rate of nicotine metabolism: slow metabolizers receive nicotine patch and fast metabolizers receive varenicline (see Lerman et al., 2015; Lancet Resp Med). Lastly, it is worth noting that most smokers trying to quit do not use evidence based interventions. A recent study of Medicaid recipients, for example (Ku et al., Health Affairs, 2016) showed, remarkably, that only 10% of smokers attempting to quit used a cessation medication. We need effective ways, therefore, to ensure that far, far more smokers attempting to quit are using FDA-approved medications in their attempt.

### **Should e-cigarettes be regulated and taxed as cigarettes or as medical devices?**

Regulation is a bit easier since the answer would be yes, simply from a consumer safety perspective. Now, approval as a medical device is not realistic today since there is inadequate scientific data to support their use to, presumably, treat nicotine dependence. Regulation can help assure that we know what e-cigarettes contain, including the dose of nicotine, and this can allow researchers to design, implement, and conduct rigorous controlled trials of their efficacy AND safety for smoking cessation. Currently, we simply do not have the scientific base to make informed decisions about the use of e-cigarettes for smoking cessation.

### **How can state and local authorities encourage people to quit smoking? Is there a role for employers? Health insurance companies?**

Broad-based policies are critical, including taxation, smoke-free regulations, warning labels, and increasing access to affordable treatments. I think there are strong data showing that states that do this well have

seen more substantial reductions in smoking than States that have not done this as well. At the very least, employers and health insurance companies can incentivize efforts to quit smoking, either financially or by removing barriers to treatment access. A more controversial approach used by some employers is to restrict hiring to non-smokers. I am not aware of data that evaluate this policy's effects so I am equivocal about its effectiveness as a health policy. You can argue that it will incentivize cessation, reduce costs, and serve as a symbol of societal/cultural norm that rejects tobacco use. But, you can also argue that it is ineffective at identifying smokers (unless you test for nicotine metabolites), can stigmatize smokers, and can prevent smokers from seeking effective treatment for their dependence.

---

## James D. Sargent

Professor of Community and Family Medicine in the Geisel School of Medicine, and Co-Director of the Cancer Control Research Program in the Norris Cotton Cancer Center at Dartmouth College



### **What are the most effective strategies for individuals trying to quit smoking? What approaches typically fail?**

Unfortunately, all approaches typically fail. Quitting without help — 5% success at one year. Quitting with aids like nicotine replacement or intensive counseling: 10-15%. There is a drug called Chantix that can boost success to 30 or 40%. But anyway you shake it, smoking is very hard to give up.

**devices?**

**Should e-cigarettes be regulated and taxed as cigarettes or as medical**

If you regulated e-cigarettes as medical devices, the companies would have to invest a lot more to get their product to market. Then, you'd have companies trying to build financial models on their use as drugs with insurers paying the costs. I'd have to say that I'd rather see e-cigarettes priced more like cigarettes than drugs. The FDA should also let scientists study them as a replacement tobacco product for the cigarette, without going through the drug approval process, so we can figure out just how much safer they are than cigarettes. We can't currently do that very easily.

### **How can state and local authorities encourage people to quit smoking? Is there a role for employers? Health insurance companies?**

Smoking costs society billions in medical costs and years of life lost. Yet insurance companies balk at incentivizing smokers to quit. Instead, they pay out billions to treat all the diseases smoking causes — cancer, heart attacks, chronic lung disease, etc. Insurers should be identifying their smokers and reaching out to them proactively. Insurers and employers should be offering them economic incentives to quit smoking. For those who can't or won't quit, we should be encouraging them to switch to a lower harm product, like, for example, oral tobacco. E-cigarettes are also a lower harm product, theoretically. We need to find out how much lower the harm is so we can know how aggressive we should be about pushing smokers to switch to e-cigarettes.

---

### **Graham A. Colditz**

Niess-Gain Professor of Surgery in the School of Medicine, and Associate Director of Prevention and Control in the Siteman Cancer Center at Washington University in St. Louis



## What are the most effective strategies for individuals trying to quit smoking? What approaches typically fail?

For anyone ready to quit smoking, the most important thing they can do is get help doing so. At least half or more of smokers try to quit cold turkey without any outside help. However, it's well-established that smokers who use quit aids — like behavior therapy, nicotine replacement therapy, and certain prescription medications — can up to double their chances of successfully quitting.

Behavioral therapies includes a broad range of interventions, including computer, smartphone, and text-message-based programs; state/federally-hosted tobacco Quit Lines, like 1-800-QUIT-NOW; and many types of behavioral counseling. Most nicotine replacement options are available over the counter and include gum, patches, and lozenges. Effective prescription medications that help with quitting include bupropion and varenicline tartrate.

Many of these approaches can be used in combination.

Smokers interested in quitting should get started by talking to a doctor; seeking out cessation programs in their communities, workplaces, or health centers; or calling their state's Quit Line (1-800-QUIT-NOW).

## Should e-cigarettes be regulated and taxed as cigarettes or as medical devices?

Yes. E-cigarettes should be regulated in the same manner as standard cigarettes. While some in public health see e-cigarettes as a means of harm reduction - if smokers replace standard cigarettes with e-cigarettes or use them as cessation aids - it's much too early to have a true sense of the full spectrum of

potential benefits and potential harms of e-cigarettes. No e-cigarette is currently approved by the FDA as a smoking cessation aid.

Youth exposure to e-cigarettes is exploding. Data from 2014 show that over two-thirds of middle and high school students had seen some kind of e-cigarette ad. And use of e-cigarettes appears to be trending upwards, with rates of use in high school students tripling between 2013 and 2014. E-cigarette use in youth can lead to nicotine addiction, potentially impact brain development, and set the stage for future tobacco use.

Regulating e-cigarettes, with appropriate restrictions that limit access and marketing to youth, is key.

### **How can state and local authorities encourage people to quit smoking? Is there a role for employers? Health insurance companies?**

One key way that states can support cessation is by devoting appropriate resources to comprehensive cessation and tobacco control programs. According to a recent report by the Centers for Disease Control and Prevention, just two percent of revenue from tobacco taxes and tobacco lawsuit settlements were devoted to comprehensive tobacco control. Only in Alaska and North Dakota are tobacco control programs currently funded at federally-recommended levels.

Expansion of Medicaid to cover more un-insured and provide evidence-based cessation programs would have a major benefit in many states. Experience from the state of Massachusetts shows that when its Medicaid population was provided tobacco cessation coverage, smoking rates declined 26 percent and hospitalizations for heart attack and other heart disease-related events dropped by nearly half.

Outside of this, other key approaches that can boost statewide cessation include appropriate support for state Quit Lines and the development and distributions of mass media communication campaigns focused on cessation.

Worksites also can be key to cessation efforts by providing information about, and access to, quit smoking program.

Within health systems, improving physician counseling about cessation remains a key opportunity to improve rates of quitting. Just a brief discussion between a doctor and patient about quitting can nearly double a smoker's chance of quitting. Yet, by some estimates, only around 20 percent of smokers who visit a doctor get counseling to quit.

---

## Andrea King

Professor in the Department of Psychiatry & Behavioral Neuroscience, and Director of the Clinical Addictions Research Laboratory at University of Chicago



### **What are the most effective strategies for individuals trying to quit smoking? What approaches typically fail?**

The most effective strategies are combining an approved medication for smoking cessation with behavioral counseling, individually or in a group. The medications include nicotine replacement (patch, gum, lozenge, nasal spray, and inhaler), bupropion, and varenicline. These treatments double or triple one's chances of success in quitting smoking, to about 25-40% at 6 to



12 months after the quit date. What usually fails is what we call “cold turkey” or doing it on your own, which results in quit rates of about 5%.

Tobacco addiction can be hard to break but important, as smoking is the number one preventable health problem of our time. Other approaches such as hypnosis, herbal treatments, or laser acupuncture has not been shown to be effective.

### **Should e-cigarettes be regulated and taxed as cigarettes or as medical devices?**

There are issues on both sides of the coin for this complicated issue about these new electronic nicotine delivery systems known as electronic or e-cigarettes. Regulation would enable us to know product constituents and features and ensure more safety, but at the same time is costly, and big tobacco may be the only producers with enough capital to fund the regulatory process. Tax issues are also complicated, but currently, e-cigarette use is less expensive than combustible cigarettes and we know that raising the price of a product will decrease its use, particularly in younger and lower income persons. As a medical device, I believe they would need to meet certain safety standards and that has not been established to my knowledge.

### **How can state and local authorities encourage people to quit smoking? Is there a role for employers? Health insurance companies?**

Provision of more services to treat smokers that is accessible, user-friendly, and not cost prohibitive. Employers and insurance companies can provide encouragement in terms of disseminating positive messages about quitting smoking, making programs available and accessible, and covering costs for all smoking cessation medications. Incentives for people to quit smoking by reducing fees can also help. There would be an enormous cost-savings in society if more people quit tobacco use and funding for prevention efforts in youth is maintained or increased.

---

## Adam Leventhal

Associate Professor of Preventive Medicine and Psychology in the Norris Comprehensive Cancer Center, and Director of the Health, Emotion, & Addiction Laboratory at University of Southern California, Keck School of Medicine



### **What are the most effective strategies for individuals trying to quit smoking? What approaches typically fail?**

Everyone interested in quitting smoking is recommended to seek some sort of treatment or professional support. Staying quit is very challenging. Less than 10% of long-term smokers who try to quit without treatment are still not smoking 1 year later. So, 'cold turkey' is the least effective strategy.

Medications can suppress the urge to smoke and other unpleasant symptoms when people try to quit smoking and increase chances of staying smoke-free. Chantix is the most effective medication, although other prescription medications like Zyban or over the counter nicotine replacement lozenges or patches are also effective. You never know what medication will work best for what particular person, so don't give up if one medication doesn't work for you and ask your doctor about trying another. Scientific data now indicates that combining two medications can be more effective than using just one, particularly for heavier smokers who might have had difficulty quitting in previous attempts.

There are also effective behavioral counseling approaches that give people very useful strategies on how

to stay quit. These can be in the form of support groups, one-on-one meetings with counselors and other health professionals, or even booklets to guide people through the quitting process. Some states offer free telephone counseling with a smoking cessation professional for those in need as part of their public health service.

Combining behavioral counseling with medication is clearly the approach that will give someone the highest chances of staying quit plus good old fashioned motivation to quit and social support from friends and family.

### **Should e-cigarettes be regulated and taxed as cigarettes or as medical devices?**

They certainly should be regulated, but in what form is not known. While there is not enough scientific data yet to determine whether and how effective they might be in helping someone reduce their cigarette smoking, it is clear that some people who are accessing these devices in the unregulated environment say that e-cigarettes have helped them quit smoking. So there may be some public health benefits of increased access to e-cigarettes that should be considered in regulatory strategies.

At the same time, others groups, including children, are using e-cigarettes purely for recreational purposes and not for health promotion. The possible dangers of recreational e-cigarette use are not known, but there is concerns that young people who vape e-cigarettes may be more likely to transition to other more dangerous forms of tobacco use. Also, scientific evidence indicates that teens are using e-cigarettes to vaporize marijuana products. These examples may reflect the potential negative consequences to public health.

So there is unlikely to be a 'one size fits all' approach to regulation that addresses the possible upsides and downsides to vaping. Regardless, there is emerging research that different e-cigarette devices and

products may have different types of potential benefits for aiding smoking cessation and dangers for respiratory health and other outcomes. So, regulating vaping products to ensure maximum safety and benefit potential to population health is essential.

## **How can state and local authorities encourage people to quit smoking? Is there a role for employers? Health insurance companies?**

State and local public health officials do a good job of raising awareness about the dangers of smoking and benefits of quitting. Where we could do better might be campaigns to raise awareness about the availability of effective smoking cessation medication and counseling. Some people have tried to quit and have failed and given up. These same people may not be aware that there are new effective medications and other methods that are helping even the most addicted smokers quit, which should give people out there hope and encourage them to try to quit again with these methods.

Many state public health services offer free telephone counseling and free nicotine patches to people in need. It would be ideal to see this practice go nationwide and reach communities that may not be aware that these services exist. More campaigns to raise awareness of these services at a local level should help that.

Employers and health insurance companies have the opportunity to take the same position as public health officials in educating their employees and insurance subscribers that new scientifically-proven methods do exist to help people quit. There are medications and behavioral support programs out there that are underutilized; employers and insurance companies are in a unique position to take advantage of them and possibly help reduce the smoking rate in the greater population. There are likely to financially benefit insurance companies and employers for helping their subscribers and employees access even the most

intensive quit smoking treatments due to the massive costs that tobacco-related disease poses for work productivity and the health care utilization in the long term.

---

## Daniel Tomaszewski

Assistant Professor in the School of Pharmacy at Chapman University



### **What are the most effective strategies for individuals trying to quit smoking? What approaches typically fail?**

It is difficult to define the most effective strategies for quitting smoking because each individual has individual needs and a patient specific plan tends to be the best approach for quitting smoking. Some keys to helping people that are heavier smokers (more than a half of a pack smoker each day) are:

1.) Don't try to do it cold turkey without any support.

2.) Most should use a combination of long acting and short acting nicotine replacement products together. Using the patch to provide a continuous level of nicotine can help prevent or lessen the cravings for a patient throughout the day/night, but using the patch doesn't always prevent all cravings. Having a short acting nicotine replacement product (like the gum, lozenge, inhaler or nasal spray) can then be used when a craving does become too great. Products have multiple doses and the amount you should use depends on how many cigarettes you smoke, so talk to your pharmacist or other healthcare provider to find out what strength is best for your needs.

3.) Set a quit date and tell your friends and family about it. Research has shown that people who pick a date (preferably one that has significance to the person, like their birthday or the New Year) and tell people about this date, tend to relapse less often. By telling your friends and family the date and your plan, they can both provide support and hold the person accountable.

4.) Find something to replace your smoking habits. If the person craves a cigarette first thing in the morning, find an activity that requires your attention to offer a distraction until the craving passes. Some people really focus on the oral fixation with cigarette smoking and may turn to eating more often to fill the void. This can lead to weight gain and should be avoided. Having low calorie, sugar free hard candy can help with this.

5.) Avoid situations that you connect to smoking. This means not going outside for a smoke break with friends. It may mean trying to take a break from spending time with friends that are heavy smokers. If your morning trip to the coffee shop usually comes with a cigarette, take a break from visiting the coffee shop for a while or go to a coffee shop that is unfamiliar to you.

6.) If you've tried the nicotine replacement route and it hasn't worked for you in the past, it's time to talk to a healthcare provider about other options for you. There are prescription only products that help individuals that have struggled to quit in the past, but these require some additional review from your healthcare provider. Your pharmacist can be a great source of information and may be able to help.

Quitting cold turkey, particularly without any additional support from family and friends, tends to be ineffective. When individuals try to quit on their own, friends that smoke may inadvertently make it harder and those friends that would like to cheer you on might not offer the support they could otherwise. Quitting smoking is tough and even more difficult when you try to quit abruptly and on your own.

## **Should e-cigarettes be regulated and taxed as cigarettes or as medical devices?**

E-cigarettes should be treated like cigarettes, as there are no presently available clinical trials to support the use of e-cigarettes for medical use. The limited research that does exist on e-cigarettes and their use in quitting smoking has not shown that e-cigarettes can help people quit smoking. In addition, some research has suggested that e-cigarettes run the risk of causing relapses for individuals who have previously quit smoking. The general lack of research also raises concerns over what the long term effects of e-cigarettes are and whether they truly are safe for overall use. Lastly, the current production of e-cigarettes continues to raise questions about the quality and consistency of the products that are available for purchase. These production standards would have to change substantially for it to be considered for regulation under FDA rules for medical devices or drugs. A point of clarification as well, although the e-cigarette device might be able to apply for regulation as a medical device, the solution that would be inhaled (e-liquid) would more appropriately meet the definition of a drug and be required to gain approval from the FDA as such, much the way inhalers and nebulizer solutions are required to.

## **How can state and local authorities encourage people to quit smoking? Is there a role for employers? Health insurance companies?**

There are several things that can be done:

First, making smoking cessation products and support services available for any and all individual who may benefit from them, at little to no cost. As continued smoking has been shown to worsen a large number of health conditions and is related to substantial financial burden for our healthcare system, investing money into reducing smoking rates now can have a significant long term positive impact on healthcare costs.

Second, increase the state cigarette tax. One measure that has continuously been shown to be directly associated with reduction in cigarette use is the increase in cost associated with cigarettes. California tax (approximately \$0.87 per pack) places it well below the national average and rank California 33rd in the nation.

Third, insurance companies should be improving access to smoking cessation products by eliminating or reducing copayments for both smoking cessation products, as well as, healthcare provider visits and support systems for patients. This may increase costs in the short-term, but would come with long-term savings.

Fourth, ban any and all nicotine products geared towards minors. Flavored cigarettes have been banned, but the advent of flavor e-juice appears to once again be signs of the tobacco industry targeting minors. With the potential of minors to make the jump from e-cigarettes to traditional cigarettes, there is significant concern over the ability of companies to use flavored nicotine or non-nicotine e-cigarettes. Since the best way to reduce smoking is to prevent individuals from ever starting, federal, state, and local authorities should be working to eliminate any and all products that encourage smoking among minors.

Lastly, raise the legal age of smoking to 21. Hawaii is the first state to take this approach and California and others should follow their lead to help curb the number of teens that consider smoking before they truly understand the safety concerns that come with it.

---

## **Deric R. Kenne**

Assistant Professor of Health Policy & Management, and Associate Director of Drug Research in The Center for



### **What are the most effective strategies for individuals trying to quit smoking? What approaches typically fail?**

A multi-faceted approach tends to be more effective than a singular approach. For instance, an individual wishing to stop smoking is more likely to be successful when a pharmacological approach (e.g., nicotine patch) is combined with a social support approach (e.g., counseling, support group) rather than either approach independently.

Cost can be a barrier for some individuals wishing to stop smoking. Inability to afford pharmacological treatments or counseling to assist in smoking cessation efforts can prevent individuals from trying to quit smoking. Another issue that can mediate smoking cessation failure or success relates to the individual's willingness to stop smoking. Individuals who recognize smoking as a problem and who are willing to quit are typically more successful than individuals who are unwillingly trying to stop because others such as family or health care providers are requesting they quit.

### **Should e-cigarettes be regulated and taxed as cigarettes or as medical devices?**

There are two sides to this question and the research is still out on these issues. On the one hand, if e-cigarette users gradually transition to tobacco cigarette use, we are likely going to see an increase in tobacco-related health issues. As a result, health care costs will climb. In this instance, e-cigarettes should be better regulated and taxed similar to the way tobacco cigarettes are regulated and taxed. On the other hand, if e-cigarettes prove to be effective tools in tobacco smoking cessation efforts, then regulation as a medical device is warranted. That said, to date, we do not have definitive evidence indicating that e-

cigarette users transition to tobacco use or that e-cigarettes are effective smoking cessation tools.

## **How can state and local authorities encourage people to quit smoking? Is there a role for employers? Health insurance companies?**

Taxing tends to be the most effective means to reduce tobacco smoking behavior. So, that is an effective strategy for state and local authorities. Beyond that, state and local authorities should support smoking cessation efforts by providing resources, including financial resources, to agencies and programming focused on preventing and reducing tobacco smoking.

Employers and health insurance companies can provide incentives (e.g., reduced insurance premiums) to employees for positive lifestyle and behavior changes that improve health and reduce health care costs. In addition, employers and health insurance companies could provide smoking cessation programs that are multi-faceted and evidence-based.

---

### **Fiorentina Angjellari-Dajci**

Professor of Economics in the School of Arts and Sciences at Florida State College at Jacksonville



#### **What are the most effective strategies for individuals trying to quit smoking? What approaches typically fail?**

Effective strategies could include:

(1) Increase awareness via education and advertising campaigns on the



well-documented adverse health effects that result from cigarette smoking, which is estimated to directly account for 443,000 deaths annually in the USA alone, a number that disregards the impacts of ‘secondary smoke’ on morbidity. Cigarette smoking is linked not only to lung cancer, throat cancer, and mouth cancer, but also to various other cancers as well as a host of adverse non-cancer health effects, including heart disease. In addition, the cost of treating health conditions caused by cigarette consumption in the long run also raises the overall cost of healthcare and the healthcare inflation rate in the USA.

(2) Gather testimonials showing people with cancer who have smoked, and run short TV and radio ads focused on how their own lives and the lives of their loved ones have changed/will change.

(3) Promoting/expanding statewide bans on cigarette smoking, not only in public buildings, but also in bars and restaurants, which has been documented to decrease cigarette consumption, a first step in helping those trying to quit smoking.

### **How can state and local authorities encourage people to quit smoking? Is there a role for employers? Health insurance companies?**

The impact of excise taxes and other factors on cigarette consumption has been studied extensively and the usual finding is that higher taxation of cigarettes per se leads to a reduction in cigarette consumption. Excise taxation of cigarettes acts as a deterrent to smoking because higher cigarette excise taxes make cigarettes more costly, such that it reduces consumption by certain current smokers on the one hand while on the other hand, in some cases, inducing other smokers to break the smoking pattern/habit entirely. In some studies it is argued that higher cigarette excise taxes might act as a deterrent to at least some would-be ‘new’ smokers. However, increased ‘smoking intensity’ has been found to be a possible course of action

for some smokers in response to higher cigarette tax levels.

Aside from the influence of cigarette excise taxation, some studies find that the proclivity to smoke cigarettes is an increasing function of the average or median age of the population. In addition, cigarette consumption is an increasing function of the unemployment rate and the greater the average educational attainment level among the adult population and the higher the per capita income level, the lower the aggregate consumption rate of cigarettes. Furthermore, cigarette smoking behaviors may be associated with a 'moral hazard' perspective. In particular, health insurance partly insulates individuals from the health problems smoking can create by reducing the risk associated with smoking, through allowing access to healthcare and mitigating the individual smoker's financial burden from any smoking-related illness or illnesses. Consequently, health insurance coverage might potentially increase the likelihood of a risk-averse individual's smoking; alternatively stated, in theory, the absence of health insurance may act to discourage smoking. Some studies find preliminary evidence of the hypothesis that the higher the percentage of the population without health insurance, the lower the percentage of the population that smokes.

The need to reduce cigarette consumption remains a very relevant public-policy issue. Raising cigarette excise taxes (a sin tax) is commonly regarded as one of the most effective prevention and control strategies for reducing and/or limiting cigarette consumption. Elasticity estimates within the range of  $-0.4$  to  $-0.7$ , indicating that, for example, an increase in the cigarette excise tax of 10% would lead to a decrease in cigarette smoking between 4% and 7%. The drop in consumption will be greater if tax elasticity is  $-0.7$ . In a recent study, we investigate the relative effectiveness of state cigarette excise taxation across the nation in reducing cigarette smoking, where greater effectiveness is reached in those regions or states with higher elasticity estimates in absolute value.

Our findings indicate that the declines in the average number of packs of cigarettes smoked annually per capita in response to a 10 cent per pack increase in the state cigarette excise tax lie in the range of 3.8 (in Arizona, Louisiana, Oklahoma and Texas) for a low, to 6.5 (New Jersey, New York, Pennsylvania, Alabama, Kentucky, Mississippi and Tennessee) for a high. In relative terms, the ratio of the highest response to the lowest response is 1.71. Thus, there does appear to be quantifiable interregional differentials in the response of cigarette smoking (measured in packs smoked annually per capita by Census Division) to higher state cigarette excise taxes.

The average per capita consumption of cigarettes in the USA from 2002-2009 was approximately 75 packs per year. Our empirical results imply that a 10-cent per pack cigarette tax increase would reduce per capita annual cigarette consumption by between 5.1% and 8.7%. However, if the tax increases by one dollar, it would reduce per capita cigarette consumption, in theory, by 51% to 87%. Arguably, these impacts are in fact economically significant, although further work on the issue, given its public health implications, is clearly needed.

Arguably, possible factors that might contribute to interregional differentials in the response of cigarette smoking behavior to higher cigarette taxes might include interregional differences in (a) customs and culture regarding tobacco consumption (and possibly even tobacco growing), (b) demographic factors such as marital status, number of children in the family unit, parental units who smoked cigarettes, and family or friends who succumbed to the health hazards imposed by cigarette smoking, as well as (c) economic factors such as the cost of living and poverty rates.

---

## **Lauren Hersch Nicholas**

Assistant Professor of Health Policy & Management in the Bloomberg School of Public Health at Johns Hopkins



### **What are the most effective strategies for individuals trying to quit smoking? What approaches typically fail?**

A number of strategies can help people quit smoking, ranging from use of medication or nicotine patches, counseling, or even bets with friends. Research suggests that using multiple strategies together, such as counseling and medication, can be most effective. There is no one-size fits all approach that always works, so patients should try several options if one does not appear to work.

### **Should e-cigarettes be regulated and taxed as cigarettes or as medical devices?**

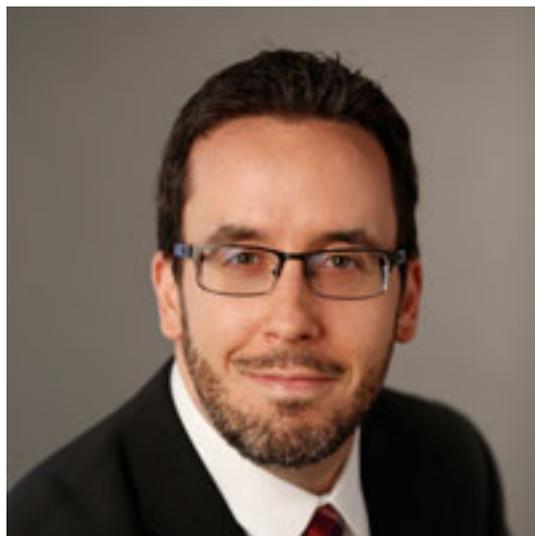
We still do not know a lot about the long-term consequences of e-cigarette use, particularly how dangerous or addictive they may be and whether they promote other bad health behaviors. The possibility for these harms suggests a role for FDA regulation.

### **How can state and local authorities encourage people to quit smoking? Is there a role for employers? Health insurance companies?**

Most Americans have access to free smoking cessation programs through their health insurance. Employers and government agencies can take steps to improve awareness of these programs and to research best practices to ensure that benefits cover appropriate strategies to help employees quit when they are ready.

## Etienne Gaudette

Research Assistant Professor in the Schaeffer Center for Health Policy & Economics, and Policy Director of the Roybal Center for Health Policy Simulation at University of Southern California



### **Should e-cigarettes be regulated and taxed as cigarettes or as medical devices?**

It really depends on how safe e-cigarettes really are in the long term. If they can safely help smokers quit cigarettes and improve their health and quality of life, they should probably be subsidized rather than taxed for people who could not quit smoking through medically approved methods.

Unfortunately, 10 years after they entered the market, there is still little known about their safety. What we do know is that they contain nicotine, a highly addictive substance, and several other known toxins and carcinogens, in levels that vary depending on the brand. Given the uncertainty, they clearly should not be treated as medical devices.

### **How can state and local authorities encourage people to quit smoking? Is there a role for employers? Health insurance companies?**

The good news is that smoking rates are declining rapidly regardless of government and private initiatives. For instance, recent forecasts suggest that proportion of smoking Americans aged over 51 will go down to less than 10% by 2030, down from 17% in 2006. This matters because this population is at the highest risk of contracting life-threatening and costly avoidable lung diseases.

Employers and health insurance companies can clearly play a role to further this trend by providing financial incentives to quit smoking – they also have a lot to gain if workers avoid costly diseases. That said, the best known lever to encourage people to quit smoking at the population level is through higher taxes. Since tobacco is addictive, it is harder to encourage people to reduce its consumption by rising its price than for other goods – bananas for example. Economists label goods like cigarettes as inelastic because their price needs to rise by a large percentage in order to obtain a given reduction in consumption. Still, smokers react more to higher prices than almost any other intervention. According to simulations of tobacco interventions, increasing the price of tobacco by 2\$ along with a series of policy changes recommended by the Institute of Medicine (IOM) would cut down the number of smoking older Americans by almost a quarter relative to current taxes.

---

## Methodology

In order to assess the impact of tobacco use on a smoker's finances over a lifetime and in a single year, WalletHub's analysts calculated the potential monetary losses – including the cumulative cost of a cigarette pack per day over several decades, health-care expenditures, income losses and other costs – brought on by smoking and exposure to secondhand smoke.

For our calculations, we assumed an adult who smokes one pack of cigarettes per day beginning at age 18, when a person can legally purchase tobacco products in the U.S. We also assumed a lifespan thereafter of 51 years, taking into account that 69 is the average age at which a smoker dies.

## Out-of-Pocket Costs

To determine per-person Out-of-Pocket Costs, we took the average cost of a pack of cigarettes in each state, multiplied that figure by the total number of days in 51 years.

### **Financial Opportunity Cost**

To determine the per-person Financial Opportunity Cost, we calculated the amount of return a person would have earned by instead investing that money in the stock market over the same period. We used the historical average market return rate for the S&P 500 minus the inflation rate during the same time period to reflect the return in present-value terms.

### **Health-Care Cost per Smoker**

Direct medical costs to treat smoking-connected health complications are one of the biggest financial detriments caused by tobacco use. To calculate related health-care costs, we obtained state-level data from the Centers for Disease Control and Prevention — namely the annual health care costs incurred from smoking — and divided that amount by the total number of adult smokers in each state.

### **Income Loss per Smoker**

Previous studies have demonstrated that smoking can lead to loss of income — either because of absenteeism, workplace bias or lower productivity due to smoking-induced health problems — and create a wage gap between smokers and nonsmokers. To represent the negative relationship between earnings and smoking, we assumed an [average 8 percent](#) decrease in the median household income for each state. We arrived at this figure after accounting for the fact that, according to a recent study from the Federal Reserve Bank of Atlanta, smokers earn 20 percent less than nonsmokers, 8 percent of which is attributed to smoking and 12 percent to other factors.

### **Other Costs per Smoker**

Nonsmokers are generally entitled to a homeowner's insurance credit of between 5 and 15 percent, according to the Independent Insurance Agents & Brokers of America. Given that fact, we assumed an 11.1 percent increase (i.e. the inverse of a 10 percent credit, or the average between the two percentages) in the average homeowner's insurance premium for each state to represent the penalty cost for smokers.

We then took into account the costs for victims of secondhand-smoke exposure. To calculate these costs, we used the per-nonsmoker expenditure in the state of New York as a proxy. We then multiplied that figure by the number of nonsmokers in each state to obtain the total costs of exposure to secondhand smoke at the state level. Finally, we divided the resulting total by the number of smokers in each state. This approach assumes that, in a perfect society, smokers would also pay the costs related to the harmful smoke that tobacco releases into the air.

### **Formula for Financial Cost of Smoking**

Financial Cost of Smoking = Out-of-Pocket Costs + Financial Opportunity Cost + Related Health-Care Costs + Income Loss Due to Smoking-Related Issues + Increase in Homeowner's Insurance Premium + Secondhand Smoke-Exposure Costs

Sources: Data used to create these rankings were collected from the U.S. Census Bureau, the U.S. Bureau of Labor Statistics, the Centers for Disease Control and Prevention, the Insurance Information Institute, NYsmokefree.com, the Federal Reserve database in St. Louis (FRED), Kaiser Family Foundation and the Independent Insurance Agents & Brokers of America.



**Richie Bernardo**

MEMBER

Richie Bernardo is a personal finance writer at WalletHub. He graduated with a Bachelor of Journalism and a minor in business from the University of Missouri-Columbia. Previously, he was a...

2625 Wallet Points

Follow

◀ [2016's Best & Worst Cities for Illinois Families](#)

[How Closely Does Iowa Resemble the U.S.?](#)

## Discussion



Your thoughts?

Submit



By: [Jfpitt3](#)

Jan 21, 2016

Imagine the financial impact for the state if Louisiana can get 200,000 smokers to quit. So far, 46,000 Louisiana residents have applied for membership in the free cessation programs and services provided by the Smoking Cessation Trust and participating healthcare providers statewide. <https://www.linkedin.com/pulse/over-30000-louisiana-residents-call-quits-jim-pittman?trk=mp-reader-card>

[Reply](#)



By: [Chad\\_forbush](#)

Jan 19, 2016

so the best place for smokers to live is Missouri. Will you all please move there!

[Reply](#)

#### About

[About Us](#)

[Media](#)

[Jobs](#)

[Studies & Reports](#)

#### Business

[Advertising](#)

[Add Listing](#)

[Free Tools](#)

#### Help

[FAQ](#)

[Feedback](#)

[Guidelines](#)

#### Legal

[Privacy](#)

[Terms](#)

© 2016 Evolution Finance, Inc. All Rights Reserved.