

# **MEASURE 3: COMPREHENSIVE TOBACCO PREVENTION AND CESSATION FOR NORTH DAKOTA**

## **A WIN-WIN SOLUTION FOR NORTH DAKOTA'S HEALTH AND ECONOMY**

**A Special Report by the Campaign for Tobacco-Free Kids**

**September 22, 2008**

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*The Campaign for Tobacco-Free Kids is an independent, non-partisan, nonprofit organization dedicated to preventing and reducing tobacco use and its harms, especially among youth. The Campaign does not receive or accept any government funding, nor does it receive or accept any funding from the tobacco industry. The Campaign works nationwide to support cost-effective state measures to reduce smoking and other tobacco use, save lives, and reduce smoking-caused harms and costs. For more information, see [www.tobaccofreekids.org](http://www.tobaccofreekids.org).*



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#### EXECUTIVE SUMMARY

Measure 3 ensures that the recent “bonus payment” increases to the cigarette companies’ annual tobacco settlement payments to North Dakota will be allocated to the state’s tobacco prevention program to bring its annual funding up to the level recommended by the U.S. Centers for Disease Control and Prevention (CDC). Doing that would soon reduce youth smoking by approximately 12.7 percent, help more than 3,500 adult smokers to quit, save more than 2,380 North Dakotans from dying prematurely from smoking, and would lock-in future state healthcare savings of more than \$113 million.

Despite annually receiving \$20 million in settlement payments from the cigarette companies and another \$20 million in annual tobacco tax revenues over the past several years, North Dakota has been spending only about \$3.1 million in state government funds to prevent and reduce tobacco use and its harms in the state. That is less than a third of the \$9.3 million recommended by CDC, and amounts to less than one-tenth of the total amount of tobacco-related revenues the state has been getting each year.\*

Thanks to a special “bonus payment” provision in North Dakota’s original tobacco settlement, however, the cigarette companies’ settlement payments have just increased by about \$15 million per year. Measure 3 simply ensures that these new bonus payments will be allocated to the state’s tobacco prevention program to bring its funding up to the CDC recommended level.

This additional funding would fill critical gaps in the state’s current tobacco prevention and cessation efforts and make it much more cost effective. For the first time, North Dakota would be able to run ongoing statewide campaigns to keep kids from starting to smoke and help both youth and adult smokers quit. It would also be able to offer more cessation services and medications (such as nicotine gum, the patch and other FDA-approved nicotine replacement therapies and cessation aid medications) through community based programs and the North Dakota Tobacco Quitline. By passing Measure 3, North Dakota would also be able to provide new tobacco prevention services and assistance directly to those most harmed by tobacco use, including the state’s Native Americans and pregnant moms and their offspring.

By making these new efforts possible, passing Measure 3 would sharply reduce smoking and other tobacco use in the state. It would shrink the number of people in the state who suffer and die prematurely because of smoking and other tobacco use. It would create a healthier and more productive state workforce. And it would save money by reducing those government, business, and household expenditures in the state caused by smoking and other tobacco use.

***The toll of tobacco is too high in North Dakota.*** Tobacco use continues to take a toll on North Dakota residents. Tobacco use kills more than 900 North Dakota residents every year and costs the state \$247 million just in annual excess health care costs – much of it borne by taxpayers. State productivity losses from smoking total an additional \$190 million per year, not

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\* Fortunately, North Dakota also receives some additional tobacco prevention funding from CDC. But even with \$1.2 million in CDC funds in fiscal year 2007-08, total spending on the state’s tobacco prevention program totaled only \$4.3 – still far less than the \$9.3 million recommended by CDC.

even counting the productivity declines from smokers being sick more often than other workers and taking cigarette breaks while on the job. One in five adults in North Dakota smoke, a rate that has basically remained unchanged for a more than a decade. More than one in five kids (21%) still smoke, and one in five high school males (20%) use spit tobacco. These North Dakota youth tobacco use rates are all higher than the rates nationwide.

***Fully funding the state tobacco prevention program would reduce smoking and save lives.*** In 2007, the Institute of Medicine of the National Academies of Sciences, the President's Cancer Panel, and the CDC each issued separate landmark reports that concluded there is overwhelming evidence that comprehensive state tobacco prevention programs substantially reduce tobacco use and recommended that every state fund its program at the CDC-recommended level. In addition, there is overwhelming evidence from those states that have implemented programs consistent with CDC guidelines that those programs significantly reduce youth and adult smoking and related harms and save lives. Accordingly, it is clear that fully funding North Dakota's tobacco prevention and cessation efforts at the CDC-recommended level would, among other public health benefits:

- ***Reduce youth smoking by 12.7%***
- ***Stop 4,570 North Dakota kids from becoming addicted adult smokers***
- ***Prompt more than 3,500 current adult smokers to quit for good***
- ***Save more than 2,380 North Dakota citizens from dying prematurely from smoking***

***Fully funding the state tobacco prevention program would strengthen the state's economy by increasing worker productivity and reducing future smoking-caused health care and smoking-caused other costs in the state by more than \$113 million.*** The smoking declines from funding North Dakota's tobacco prevention program at the CDC recommended level would translate directly into reductions in smoking-caused disease and disability, thereby increasing the health and productivity of the state's workforce and reducing government, business, and household smoking-caused costs. Using conservative, research-based estimates, the smoking declines from passing Measure 3 would lock-in more than \$113 million in future smoking-caused health expenditure reductions in the state, including more than \$11.9 in future cuts to state Medicaid program expenditures.

As further detailed in the full report, passing Measure 3 would be a double victory for the state. By working effectively to prevent and reduce smoking and other tobacco use in the state, it would not only improve public health and save lives but also save money and strengthen the economy.

## **MEASURE 3: COMPREHENSIVE TOBACCO PREVENTION AND CESSATION FOR NORTH DAKOTA**

### **A WIN-WIN SOLUTION FOR NORTH DAKOTA'S HEALTH & ECONOMY**

This report shows that Measure 3, which would fully fund comprehensive tobacco prevention and cessation programs in North Dakota, would secure \$113 million in future health care cost savings in the state by preventing North Dakota kids from becoming addicted smokers and by prompting many current smokers and other tobacco users to quit, thereby producing substantial declines in the disease, disability and death caused by smoking and other tobacco use in the state.

#### **Smoking and Other Tobacco Use is Causing Massive Harms and Costs in North Dakota**

Tobacco use and its toll are still way to high in North Dakota, and a comprehensive program is desperately needed. Despite recent progress, one in five adults in the state still smoke, 21% of youth smoke (higher than the national rate), and smokeless tobacco use levels are among the highest in the country. 2,600 kids try smoking in the state each year and 800 more kids become regular, daily smokers every year, one-third of whom will die prematurely.

Tobacco use is the number one cause of preventable death in North Dakota, killing 900 people each year, while thousands of others suffer from smoking-caused disease and disability. Statistics can be numbing, but we cannot forget that they represent mothers and fathers, brothers and sisters, colleagues and friends. Their suffering and their deaths have devastated too many families and communities.

Tobacco use is also costly. Every year, North Dakota's government, businesses, and households spend \$247 million on smoking-caused health care costs and \$190 million in lost productivity. In fact, the U.S. Centers for Disease Control and Prevention (CDC) estimates that smoking-caused health costs and productivity losses in North Dakota total \$10.48 per pack sold in the state. In addition, North Dakota households pay on average of about \$573 per year in federal and state taxes to cover government expenditures caused by tobacco use.\*

#### **North Dakota Needs to Do More to Reduce the Enormous Toll of Tobacco in the State**

The CDC recommends that North Dakota spend \$9.3 million on a comprehensive tobacco control program that includes statewide and community programs and media campaigns to prevent kids from starting to smoke and to help smokers quit.<sup>1</sup> But even with the help of a \$1.2 million grant to the state from CDC, North Dakota only spent \$4.3 million (and only \$3.1 million of its own revenues) on tobacco prevention in fiscal year 2007-08.

At the same time, North Dakota receives tobacco tax revenues of about \$20 million per year and, thanks to the new bonus payments, now receives more than \$35 million per year from the cigarette companies' tobacco lawsuit settlement payments. The tobacco settlement was meant to provide funds to support state tobacco prevention efforts; but, so far, North Dakota has not actually been allocating significant amounts of the tobacco settlement payments to prevent and reduce tobacco use and its harms.<sup>†</sup>

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\* For more detail on the toll of tobacco in North Dakota, and citations to sources, see Appendix A.

† For more on North Dakota's tobacco-related revenues versus its expenditures to prevent and reduce the massive harms and costs caused by smoking and other tobacco use, see *A Broken Promise to Our Children: The 1998 State Tobacco Settlement Nine Years Later*, November, 2007, a special report issued by the

North Dakota's inadequate spending on tobacco prevention is especially troubling given that the state does not have in place other measures that are known to impact smoking rates, such as a comprehensive statewide smokefree air law or reasonable tobacco tax rates. In fact, North Dakota's cigarette tax rate ranks 41st in the nation at only 44 cents per pack (more than 70 cents per pack less than the nationwide average state rate).<sup>2</sup>

### **What Measure 3 Would Do**

The 1998 tobacco settlement – and the millions of dollars it provides every year – presented North Dakota with an unprecedented opportunity to attack the enormous public health problem posed by tobacco use. Unfortunately, North Dakota has not used the settlement money to fund tobacco prevention and cessation programs at levels recommended by CDC. Now, however, North Dakota has a second chance to keep the promise it made to the state's children by passing Measure 3, which would allocate the roughly \$15 million per year the state is getting in special new tobacco settlement "bonus payments" to fully fund the state's tobacco prevention and cessation efforts at the CDC recommended level of \$9.3 million.<sup>3</sup>

The additional funding for the state's tobacco control program would allow North Dakota to fund ongoing statewide campaigns to prevent kids from starting to smoke and increase cessation among young people, as well as fund community programs proven to counter pro-tobacco influences in the state. These funds could also be used to target specific groups disparately affected by tobacco use, such as Native Americans and pregnant mothers and their offspring.

Increased funding for the tobacco control program would also enable North Dakota to fund health communication and education campaigns that encourage smokers to quit, provide more free services and medications through cessation programs, and expand the services offered through the North Dakota Tobacco Quitline. As detailed below, many smokers would quit in response to these expanded efforts and thousands of smoking-caused deaths would be prevented.

Comprehensive tobacco prevention and cessation programs are a proven method of preventing kids from starting to smoke and helping adult smokers quit. Increasing funding for tobacco prevention and cessation is crucial to reducing tobacco use in the state and to preventing a new generation of addicted tobacco users from starting. It also makes good economic sense. Using the new "bonus payments" from the state tobacco settlement to expand and improve the state's tobacco prevention and cessation efforts would not only honor the purpose of the tobacco lawsuit settlements with the cigarette companies but would also produce enormous public health benefits, improve worker productivity, and reduce government, business, and household smoking-caused costs.

### **Adequately Funding State Tobacco Prevention Programs Reduces Smoking and Related Harms and Costs**

Available research and the experiences of other states that have made adequate tobacco prevention program investments make it clear that passing Measure 3 would significantly prevent and reduce smoking and other tobacco use in North Dakota and produce enormous public health and economic benefits to the state.

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Campaign for Tobacco-Free Kids, American Heart Association, American Lung Association and American Cancer Society Cancer Action Network, <http://www.tobaccofreekids.org/reports/settlements>.

Most fundamentally, it is well established that comprehensive statewide tobacco-prevention programs prompt substantial reductions in smoking levels among both adults and kids by both increasing the numbers who quit or cutback and reducing the numbers who start or relapse.<sup>4</sup> As a result, state tobacco prevention programs also reduce all the death, disease, disability and other harms caused by smoking and other tobacco use – and also save money by reducing tobacco-related health care costs.

States that have implemented comprehensive programs consistent with CDC guidelines have achieved significant reductions in smoking and other tobacco use among both adults and youth. In addition, studies have shown that the more states spend on tobacco prevention, the lower the youth smoking rates and overall tobacco use.<sup>†</sup> National studies that look across states and control for as many of the relevant confounding factors as possible consistently show powerful, positive effects of tobacco prevention and cessation programs. For example:

§ A study published in the *American Journal of Public Health* earlier this year examined state tobacco prevention and cessation funding levels from 1995 to 2003 and found that the more states spent on these programs, the larger the declines they achieved in adult smoking, even when controlling for other factors such as increased tobacco prices. The researchers also calculated that if every state had funded their programs at the levels recommended by the CDC during that period, there would have been between 2.2 million and 7.1 million fewer smokers in the United States by 2003.<sup>5</sup> The Campaign for Tobacco-Free Kids estimates that such smoking declines would have saved between 700,000 and 2.2 million lives as well as between \$20 billion and \$67 billion in health care costs.

§ The study described above adds to earlier research, using similar methods, which demonstrated the same type of relationship between program spending and youth smoking declines. The 2005 study concluded that if every state had spent the minimum amount recommended by the CDC for tobacco prevention, youth smoking rates nationally would have been between three and 14 percent lower during the study period, from 1991 to 2000. Further, if every state funded tobacco prevention at CDC minimum levels, states would prevent nearly two million kids alive today from becoming smokers, save more than 600,000 of them from premature, smoking-caused deaths, and save \$23.4 billion in long-term, smoking-related health care costs.<sup>6</sup>

In 2007, the Institute of Medicine and the President's Cancer Panel each issued separate landmark reports that reviewed available data, research and other evidence and concluded that it overwhelming establishes that comprehensive state tobacco control programs substantially reduce smoking and other tobacco use among both adults and youth.<sup>7</sup> Accordingly, both the Institute of Medicine and the President's Cancer Panel recommended that every state adequately fund their tobacco prevention programs at the CDC-recommended levels.

Since then, even more evidence has accumulated on the power of state investments in tobacco prevention and cessation to produce massive public health and economic benefits. For example, earlier studies had found that state tobacco prevention programs can, in their early years, save \$3.00 or more just from reduced state health care expenditures for every dollar spent.<sup>8</sup> But new

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\* For more on how state tobacco prevention program's cost-effectively save money, see the Campaign for Tobacco-Free Kids (CFTFK) Factsheet, *Comprehensive Tobacco Prevention and Cessation Programs Save Money*, <http://www.tobaccofreekids.org/research/factsheets/pdf/0168.pdf> and the references cited therein.

† For extensive examples of real-world smoking declines in states that have already initiated statewide tobacco prevention programs, See CFTFK Factsheet, *Comprehensive Tobacco Prevention and Cessation Programs Reduce Tobacco Use*, <http://www.tobaccofreekids.org/research/factsheets/pdf/0045.pdf>.

research has added to those findings to show that state programs secure even larger returns on investment for sustained funding of tobacco prevention at adequate levels over ten or more years. Most notably, a new study of California's tobacco prevention found that for every dollar the state spent on its tobacco control program from 1989 to 2004, the state received tens of dollars in savings in the form of sharp reductions to total healthcare costs in the state.<sup>9</sup> This study confirms that the cost-saving benefits from sustained state investments in effective tobacco control programs quickly grow over time to dwarf the state expenditures, producing massive gains for the state not only in terms of both improved public health and increased worker productivity but in reduced government, business, and household costs.

Similarly, an August 2008 Australian study found that for every dollar spent on a strong tobacco control program there (consisting primarily of aggressive anti-smoking television ads along with telephone quitlines and other support services to help smokers quit) the program reduced future healthcare costs by \$70 over the lifetimes of the persons the program prompted to quit. This savings estimate was based on the study's finding that for every 10,000 who quit because of the tobacco control program, more than 500 were saved from lung cancer, more than 600 escaped having heart attacks, at least 130 avoid suffering from a stroke, and more than 1700 were prevented from suffering from chronic obstructive pulmonary disease (COPD).<sup>10</sup>

Substantial cost savings from getting adult smokers to quit begin to appear as soon as the smoking declines occur. While most of the healthcare savings from getting kids to quit smoking or never start do not appear until years later, some savings from reducing youth smoking also appear immediately. For example, reducing smoking among pregnant women reduces smoking among pregnant teens, who have especially high smoking rates, and produces immediate reductions in smoking-caused pregnancy and birth complications and related healthcare costs. Research studies estimate that the direct additional healthcare costs in the United States associated just with the birth complications caused by pregnant women smoking or being exposed to secondhand smoke could be as high as \$2 billion per year or more, with the costs linked to each smoking-affected birth averaging \$1,142 to \$1,358.<sup>11</sup> And state Medicaid programs cover well over half of all births in the United States.<sup>12</sup>

Sharp drops in the major smoking-caused diseases (such as strokes, heart disease, and lung and other cancers), and the large related savings, do not appear for several years after state adult smoking levels decline. But some small declines in these smoking-caused diseases do begin to occur immediately, with significant cost savings. In California, for example, the state tobacco control program's reductions to adult smoking in its first seven years produced healthcare costs savings of \$390 million just through the related declines in smoking-caused heart attacks and strokes, with more than \$25 million of those savings appearing in just the first two years.<sup>13</sup>

By quickly reducing the number of cigarettes smoked by adults and kids in the state each year, statewide tobacco-control programs also reduce other health problems, and related costs, caused by secondhand smoke. Adults and children with emphysema, asthma or other respiratory illnesses, for example, can suffer immediate distress from being exposed to cigarette smoke, which can even lead to hospitalization in some cases.<sup>14</sup>

Reducing the number of cigarettes smoked in a state can also reduce the number of smoking-caused fires and the amount of smoking-caused smoke damage, soiling, and litter. While no good estimates of the related cost savings exist, smoking-caused fires cause more than \$500 million in residential and commercial property losses each year; and business maintenance and cleaning costs caused by smoking annually total roughly \$5 billion nationwide.<sup>15</sup>

**Fully Funding the North Dakota Tobacco Prevention Programs Will Reduce Smoking, Save Lives and Protect Kids**

Directing the new revenue from the tobacco settlement “bonus payments” to expand the state’s efforts to prevent and reduce tobacco use would dramatically improve the health of North Dakota residents. Significant and health and economic benefits would begin almost immediately and would quickly continue to grow much larger every year the program is in place.\*

**Reducing Youth Smoking and Related Harms.** Recent research on the impact of state tobacco prevention program funding on reductions to youth smoking levels indicates that fully funding North Dakota’s tobacco prevention program at the CDC-recommended level would work to reduce the number of youth smokers by approximately 12.7 percent, stopping at least 4,570 North Dakota kids alive today from growing up to become addicted adult smokers – thereby saving at least 1,460 North Dakota kids from ultimately dying prematurely from smoking.<sup>16</sup> The youth smoking reductions would start immediately and grow each year so long as the programs funding level was maintained at the new level.

|  | <b>Decline in Youth Smoking</b> | <b>Kids Alive Today Stopped From Smoking</b> | <b>Kids Saved From Dying From Smoking</b> |
|--|---------------------------------|--|---|
| <b>Fully-Funded Prevention Program</b> | 12.7%                           | 4,570  | 1,460                                     |

These estimates are conservative, however, because additional funding for the state’s tobacco control program would have an impact on the use of other tobacco products besides cigarettes, such as smokeless tobacco and cigars.

Currently, 11.7 percent of high schoolers in North Dakota use smokeless tobacco. The habit is more popular among boys than girls, with 19.8 percent of high school boys using smokeless tobacco compared to 3.2 percent of high school girls.<sup>17</sup> The use of smokeless tobacco among high school boys in North Dakota is among the highest in the country. Clearly, more must be done to prevent this destructive activity. Increasing funding for the state’s prevention and cessation program would help to prevent the death, disease, costs and other harms caused by these tobacco products.

Cigar smoking is also increasing among kids, and is just as deadly and addictive as cigarettes. In North Dakota, 11.4 percent of high school students smoke cigars.<sup>18</sup> Fully funding the state tobacco prevention program through Measure 3 would help to prevent youth from becoming addicted to smoking through trying cigars, which often come in kid-friendly flavors such as grape, cherry, and chocolate.

**Reducing Adult Smoking and Related Harms.** Recent research on the average impact of state tobacco prevention program funding on adult smoking levels shows that fully funding the North Dakota would, in the first year reduce adult smoking by 1,200. But these adults smoking reductions would continue to grow each year the fully funded program was in place. After just the first five years, the program would be reducing the total number of adult smokers in the state by 3,480, thereby saving 920 from dying prematurely from smoking and extending the lives of many of the others. With Measure 3 in place, these adult smoking declines would be maintained and continue to grow after the first five years, saving and improving even more lives.<sup>19</sup>

\* For more detail on the benefits and savings from each percentage point decline in North Dakota smoking rates, See Appendix B.

|  | Fewer Adult Smokers | Adults Saved From Dying From Smoking |
|--|---------------------|--------------------------------------|
| <b>Fully-Funded Prevention Program</b> | 3,480               | 920                                  |

But these projected results are based on the assumption that the North Dakota program has only average results. If, instead, North Dakota follows the CDC program guidelines and establishes and runs an above-average program it would shrink adult, and youth, smoking even more sharply and secure even larger public health benefits – as well as larger amounts of related healthcare and other cost savings.

In addition, these adult and youth smoking declines, and the related benefits, could be accelerated and expanded if North Dakota also increased its tobacco tax rates and implemented a comprehensive smoke-free law.

**Fully Funding the North Dakota Tobacco Prevention Program Would Reduce Government, Private Sector, and Household Smoking-Caused Health Costs Throughout the State**

Extra healthcare expenditures in North Dakota caused by smoking add up to \$247 million annually. That includes \$47 million a year in state Medicaid program costs, much of it paid by the state and North Dakota taxpayers.\* Increasing funding for the state’s efforts to prevent and reduce smoking and other tobacco use is a cost-effective method to reduce these costs to North Dakota’s government, businesses, and taxpayers.†

As the table below shows, given the conservative youth and adult smoking declines outlined above, in the first five after fully funding its tobacco prevention program, North Dakota health care costs would be reduced by approximately \$2.0 million just from fewer smoking-caused heart attacks, strokes and fewer smoking-affected births.<sup>20</sup>

|  | 5-Year Heart-Stroke Savings | 5-Year Pregnancy Savings |
|--|-----------------------------|--------------------------|
| <b>Fully-Funded Prevention Program</b> | \$1.1 million               | \$920,000                |

These short-term healthcare savings from heart-stroke and pregnancy cost reductions, which would begin to accrue immediately, represent only the tip of the savings iceberg for North Dakota, as the smoking declines from a fully funded program would immediately begin to reduce numerous other smoking-caused health costs as well. But available data and research is not currently adequate to make reliable estimates of the actual dollar amounts.

***Fully funding North Dakota’s tobacco prevention program would quickly lock-in more than \$113 million in total future healthcare cost savings in the state, with at least \$11.9 million of those savings in the state Medicaid program.*** By prompting current adult and youth smokers to quit, helping former smokers from relapsing, and getting thousands of kids to never start smoking, state tobacco-prevention programs lock in enormous savings over the lifetimes of each person stopped from future smoking. Put simply, the lifetime healthcare costs of smokers total at least \$17,500 more than nonsmokers, on average, despite the fact that smokers do not live as long, with

\* For more detail on the economic toll of tobacco use in North Dakota, see Appendix A.

† For more detail on how comprehensive tobacco prevention and cessation programs save money, See TFK Factsheet, *Comprehensive Tobacco Prevention and Cessation Programs Reduce Tobacco Use*, <http://www.tobaccofreekids.org/research/factsheets/pdf/0168.pdf>

a somewhat smaller difference between smokers and former smokers.<sup>21</sup> That means that for every thousand kids kept from smoking by a state program, future healthcare costs in the state decline by roughly \$17.5 million (in current dollars), and for every thousand adults prompted to quit future health costs drop by roughly \$9.5 million.<sup>22</sup>

The long-term savings from state tobacco-prevention programs -- as well as the immediate and short-term savings outlined above – also directly reduce state Medicaid program expenditures. More than 10% of all smoking-caused healthcare expenditures In North Dakota are paid for by the state’s Medicaid program.<sup>23</sup>

Accordingly, the previously described declines in adult and youth smoking that would be secured through passing Measure 3 and fully funding North Dakota’s tobacco prevention program at the CDC-recommended level –if the program obtained only average results – would, after just five years, reduce future healthcare costs in the state by an estimated \$113 million, including \$11.9 in reduced state Medicaid Program expenditures. And with every passing year, even more savings would be secured.

|  | <b>Total Future Health Savings</b> | <b>Medicaid Share of Total Savings</b> |
|--|------------------------------------|--|
| <b>Fully-Funded Prevention Program</b> | \$113 million                      | \$11.9 million                         |

As noted above, these savings would be even larger if North Dakota’s tobacco prevention program, when fully funded through Measure 3, followed the CDC program guidelines and other best practices to make sure it obtained above-average results. California, for example, which has run an exemplary tobacco prevention program focusing on reducing adult smoking, as well as youth tobacco use declines, has been found to have saved, in its first fifteen years, tens of dollars for every single dollar it invested in the tobacco prevention program.<sup>24</sup> And California spent somewhat less than the CDC-recommended amounts during that time period; and would have reaped even larger savings if it had.

Supplementing North Dakota’s tobacco program’s efforts with an increase to the state’s tobacco tax rates and by implementing a strong smoke-free law would also secure even larger smoking reductions and related cost savings.

But even without above-average or additional efforts, the projections here would continue to grow even larger after the first five years of the fully-funded program’s efforts – locking in even larger future healthcare savings and state Medicaid Program expenditure reductions.

The above projections of overall healthcare savings to public, private sector, and household healthcare costs throughout the state would occur over the lifetimes of the smokers who quit or kids who never start smoking because of a fully-funded tobacco program. Besides Medicaid, North Dakota would also see reductions to the smoking-caused health costs in other state or state-funded programs because of the smoking declines prompted by the program – and private sector and individual smoking-caused health costs would also decline. Most notably, decreasing smoking rates among workers would also lower public and private sector employers’ health care and health insurance costs.

Businesses pay a large share of smoking-related healthcare costs. Studies have indicated that 30 to 85 percent of medical costs to employers are unnecessarily excessive and could be reduced if the health status of their employees was improved.<sup>25</sup> Each smoking employee costs their employer an estimated \$1,000 to \$4,600 per year in excess medical costs.<sup>26</sup> Studies show that smoking and other tobacco use decrease business productivity through high rates of absenteeism and reduced concentration and drive up businesses’ health and non-health costs. With adequate

funding, the state's tobacco control program can not only protect kids from tobacco addiction, but can ensure that the state will offer business and government more healthy and productive employees in the future. Furthermore, reducing smoking among current adult smokers now will make North Dakota's current workforce more healthy and productive, and reduce employers' related costs.

### **The Tobacco Use Declines from Fully Funding the State's Tobacco Program Would Also Reduce Public and Private *Non-Health* Costs**

By reducing smoking and tobacco use, a fully-funded tobacco prevention and cessation program would reduce a range of non-healthcare costs throughout the state, such as the amount of property damage and loss from smoking-caused fires and smoking-caused cleaning and maintenance costs, which total in the billions nationwide. But the biggest non-health-cost benefit might be the impact of the smoking declines on improving worker productivity and reducing related losses.

***Reducing productivity losses in the state.*** Currently, the CDC estimates that the productivity losses in North Dakota from productive work lives being shortened by smoking-caused death total more than \$190 million each year.<sup>27</sup> North Dakota's employers also suffer from substantial additional productivity losses caused by employees who smoke or use other tobacco products being sick more often, smoking employees taking cigarette breaks and being less productive on-the-job, and productive employees having to stop working because they are suffering from smoking-caused disease or disability. For example, one study found that smoking hurts productivity because employees who smoke are absent from work on average 6.16 days per year due to illness, whereas nonsmokers are absent on average 3.86 days per year.<sup>28</sup> Similarly, a study done for the Indiana Health Department determined that the cost of smoking employees to businesses in just a single Indiana county totaled \$260.1 million per year from increased absenteeism and lost productivity, higher health insurance premiums, and increased recruitment and training costs from smoking employees' premature retirement and death.<sup>29</sup>

By reducing smoking among workers, a fully-funded prevention and cessation program would cut public and private sector employer productivity losses by improving worker health and on-the-job performance, reducing the amount of smoking-caused work absences and work-time cigarette breaks, and reducing the number of productive work years lost from smoking-caused illness or disability interrupting or prematurely ending healthy and productive work lives. A healthier, more productive workforce would not only help existing state government and business employers but would also make North Dakota more attractive to businesses that might be considering leaving the state or other businesses the might be considering relocating to North Dakota.

### **Conclusion**

Measure 3 would allow North Dakota to adequately fund statewide tobacco prevention and cessation programs that prevent kids from starting to smoke and help smokers quit by allocating new "bonus settlement payments" from the 1998 national tobacco settlement into a new trust fund for tobacco prevention. The tobacco settlement's bonus payments provide more than enough revenue for the state to fully fund this critically important and badly needed state program at the cost-effective level recommended by the U.S. Centers for Disease Control and Prevention. Fully funding North Dakota's prevention and cessation program would produce enormous tobacco use declines and related public health and economic benefits. The people, businesses, and taxpayers of North Dakota deserve no less.

## APPENDIX A

### THE TOLL OF TOBACCO IN NORTH DAKOTA

#### Tobacco Use in North Dakota

- High school students who smoke: 21.1% [Girls: 22.7% Boys: 19.4%]
- High school males who use smokeless tobacco: 19.8%
- Kids (under 18) who try cigarettes for the first time each year: 2,600
- Additional Kids (under 18) who become new regular, daily smokers each year: 800
- Packs of cigarettes bought or smoked by kids in North Dakota each year: 1.9 million
- Kids exposed to second hand smoke at home: 42,000
- Adults in North Dakota who smoke: 20.9% [Men: 22.2% Women: 19.7% Pregnant Females: 17.4%]

Nationwide, youth smoking has declined significantly since the mid-1990s, but that decline appears to have slowed. The 2007 Youth Risk Behavior Survey found that the percentage of high school students reporting that they have smoked cigarettes in the past month decreased to 20 percent in 2007 from 23 percent in 2005. 20.8 percent of U.S. adults (about 45 million) currently smoke, about the same as the 20.9 percent who smoked in 2004 and 2005.

#### Deaths in North Dakota From Smoking

- Adults who die each year in North Dakota from their own smoking: 900
- Adult nonsmokers who die each year from exposure to secondhand smoke: 50 to 150
- North Dakota kids who have lost at least one parent to a smoking-caused death: 500
- Kids alive in state today who will ultimately die from smoking: 11,000 (given current smoking levels)

Smoking, alone, kills more people each year than alcohol, AIDS, car crashes, illegal drugs, murders, and suicides combined. For every person in North Dakota who dies from smoking approximately 20 more state residents are suffering from serious smoking-caused disease and disability, or other tobacco-caused health problems.

#### Tobacco-Related Monetary Costs in North Dakota

- Annual health care expenditures in the State directly caused by tobacco use: \$247 million
  - § State Medicaid program's total health expenditures caused by tobacco use: \$47.0 million
- § Annual health care expenditures in North Dakota from secondhand smoke exposure: \$10.8 million
- Citizens' state/federal taxes to cover smoking-caused gov't costs: \$155.9 million (\$573/household)
- Smoking-caused productivity losses in North Dakota: \$190 million
- Smoking-caused health costs and productivity losses per pack sold in North Dakota: \$10.48

The productivity loss amount, above, is from smoking-death-shortened work lives, alone. Additional work productivity losses totaling in the tens of billions nationwide come from smoking-caused work absences, on-the-job performance declines, and disability during otherwise productive work lives. Other non-health costs caused by tobacco use include direct residential and commercial property losses from smoking-caused fires (about \$400 million nationwide); and the costs of extra cleaning and maintenance made necessary by tobacco smoke and tobacco-related litter (about \$4+ billion per year for commercial establishments alone).

#### Tobacco Industry Advertising and Other Product Promotion

- Annual tobacco industry marketing expenditures nationwide: \$13.4 billion (\$36+ million per day)
- Estimated portion spent in North Dakota each year: \$29.9 million

Published research studies have found that kids are three times more sensitive to tobacco advertising than adults and are more likely to be influenced to smoke by cigarette marketing than by peer pressure, and that one-third of underage experimentation with smoking is attributable to tobacco company marketing.

#### North Dakota Government Policies Affecting The Toll of Tobacco in North Dakota

- Annual State tobacco prevention spending from tobacco settlement and tax revenues: \$3.1 million [National rank: 31 (with 1 the best), based on percent of CDC recommendation]
- State cigarette tax per pack: \$0.44 [National rank: 41st (average state tax is \$1.18 per pack)]

## Sources

*Youth smoking.* 2007 Youth Risk Behavior Surveillance (YRBS). A 2005 YRBS found that 30.2% of high schoolers smoked. Current smoking = smoked in past month. The 2003 National Youth Risk Behavior Survey, using a different methodology than the YTS, found that 21.9% of U.S. high school kids smoke and 11% of high school males use spit tobacco. *Male youth smokeless.* 2007 YRBS. A 2005 YRBS found that 18.3% of high school males used spit tobacco. Female smokeless use is much lower. *New youth smokers.* Estimate based on U.S. Dept of Health & Human Services (HHS), "Summary Findings from the 2006 Nat'l Survey on Drug Use and Health," <http://www.oas.samhsa.gov/nsduh/2k6nsduh/tabs/Sect4peTabs10to11.pdf>, with the state share of the national number allocated through the formula in U.S. Centers for Disease Control & Prevention (CDC), "Projected Smoking-Related Deaths Among Youth—United States," *Morbidity & Mortality Weekly Report (MMWR)* 45(44):971-74, November 8, 1996 [based on state young adult smoking rates, as updated in CDC, *Sustaining State Programs for Tobacco Control, Data Highlights, 2006*]. *Smokefree workplaces.* Shopland, D, et al., "State-Specific Trends in Smoke-Free Workplace Policy Coverage: The Current Population Survey Tobacco Use Supplement, 1993 to 1999," *Jnl of Occupational & Environmental Medicine* 43(8):680-86, August 2001. *Kids exposed to secondhand smoke.* CDC, "State-Specific Prevalence of Cigarette Smoking Among Adults & Children's and Adolescents' Exposure to Environmental Tobacco Smoke—United States, 1996," *MMWR* 46(44):1038-43, November 7, 1997. *Packs consumed by kids.* Estimated from North Dakota's youth population & smoking rates; and see DiFranza, J & Librett, J, "State and Federal Revenues from Tobacco Consumed by Minors," *Am. Jnl of Public Health* 89(7):1106-08, July 1999 & Cummings, et al., "The Illegal Sale of Cigarettes to US Minors: Estimates by State," *AJPH* 84(2):300-302, February 1994. *Adult smoking.* State: 2006 BRFSS, *Behavioral Risk Factor Surveillance System*. National: 2006 Nat'l Health Interview Survey (NHIS), <http://www.cdc.gov/mmwr/PDF/wk/mm5644.pdf> *Pregnant Females.* CDC, "Smoking During Pregnancy—United States, 1990-2002," *MMWR* 53(39):911-15, October 8, 2004, <http://www.cdc.gov/mmwr/PDF/wk/mm5339.pdf>.

*Adult deaths.* CDC's STATE System (avg annual deaths from 1997-2001), <http://apps.nccd.cdc.gov/StateSystem/systemIndex.aspx>. CDC, *State Data Highlights 2006*, [http://www.cdc.gov/tobacco/data\\_statistics/state\\_data/data\\_highlights/2006/index.htm](http://www.cdc.gov/tobacco/data_statistics/state_data/data_highlights/2006/index.htm); CDC, "Annual Smoking-Attributable Mortality, Years of Potential Life Lost, and Economic Costs—United States, 1995-1999," *MMWR* 54(25):625-628, April 11, 2002, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5114a2.htm>. U.S. General Accounting Office (GAO), "CDC's April 2002 Report on Smoking: Estimates of Selected Health Consequences of Cigarette Smoking Were Reasonable," letter to U.S. Rep. Richard Burr, <http://www.gao.gov/new.items/d03942r.pdf>, July 16, 2003. *Lost Parents.* Leistikow, B, et al., "Estimates of Smoking-Attributable Deaths at Ages 15-54, Motherless or Fatherless Youths, and Resulting Social Security Costs in the United States in 1994," *Preventive Medicine* 30(5):353-360, May 2000, and state-specific data from author. *Projected youth smoking deaths.* CDC, *State Highlights 2006*; CDC, "Projected Smoking-Related Deaths Among Youth—United States," *MMWR* 45(44):971-974, November 11, 1996, [www.cdc.gov/mmwr/mmwr\\_wk.html](http://www.cdc.gov/mmwr/mmwr_wk.html). *Secondhand smoke deaths.* California EPA, *Proposed Identification of Environmental Tobacco Smoke as a Toxic Air Contaminant*, June 24, 2005, <http://repositories.cdlib.org/tc/surveys/CALEPA2005C/>. See also, CDC, "Factsheet: Secondhand Smoke," September 2006, [http://www.cdc.gov/tobacco/data\\_statistics/Factsheets/SecondhandSmoke.htm](http://www.cdc.gov/tobacco/data_statistics/Factsheets/SecondhandSmoke.htm).

*Health and productivity costs caused by tobacco use.* CDC, *State Data Highlights 2006* [and underlying CDC data/estimates], [http://www.cdc.gov/tobacco/data\\_statistics/state\\_data/data\\_highlights/2006/index.htm](http://www.cdc.gov/tobacco/data_statistics/state_data/data_highlights/2006/index.htm). CDC's STATE System average annual smoking attributable productivity losses from 1997-2001 (1999 estimates updated to 2004 dollars); GAO, <http://www.gao.gov/new.items/d03942r.pdf>, July 16, 2003. State Medicaid program expenditures are before any federal reimbursement. *SHS Costs.* Behan, DF, et al., *Economic Effects of Environmental Tobacco Smoke*, Society of Actuaries, March 31, 2005, [http://www.soa.org/files/pdf/ETSReportFinalDraft\(Final%203\).pdf](http://www.soa.org/files/pdf/ETSReportFinalDraft(Final%203).pdf) [nationwide costs allocated to state based on its share of all U.S. smokers]. *State-federal tobacco tax burden.* Equals North Dakota residents' federal & state tax payments necessary to cover all state government tobacco-caused costs plus the residents' pro-rata share, based on state populations, of all federal tobacco-caused costs. See above and Zhang, X, et al., "Cost of Smoking to the Medicare Program, 1993," *Health Care Financing Review* 20(4):1-19, Summer 1999; Office of Management & Budget, *Budget for the United States Government - Fiscal Year 2000*, Table S-8, 1999; Leistikow, B, et al., "Estimates of Smoking-Attributable Deaths at Ages 15-54, Motherless or Fatherless Youths, and Resulting Social Security Costs in the United States in 1994," *Preventive Medicine* 30(5):353-360, May 2000 – with other state government tobacco costs taken to be 3% of all state smoking-caused health costs, as in CDC, "Medical Care Expenditures Attributable to Smoking—United States, 1993," *MMWR* 43(26):1-4, July 8, 1994. CDC's State Data Highlights 2006 provides cost estimates that have been adjusted for inflation and put in 2004 dollars. To make the other cost data similarly current and more comparable, they have also been adjusted for inflation and put in 2004 dollars, using the same CDC methodology. *Other tobacco-related costs.* U.S. Treasury Dept., *Economic Costs of Smoking in the U.S. & the Benefits of Comprehensive Tobacco Legislation*, 1998; Chaloupka, F.J. & K.E. Warner, "The Economics of Smoking," in Culyer, A & Newhouse, J (eds), *Handbook of Health Economics*, 2000; CDC, *MMWR* 46(44), November 7, 1997; CDC, *Making Your Workplace Smokefree: A Decision Maker's Guide*, 1996; Mudarri, D, U.S. Environmental Protection Agency, *Costs & Benefits of Smoking Restrictions: An Assessment of the Smoke-Free Environment Act of 1993 (H.R. 3434)*, submitted to Subcommittee on Health & the Environment, Committee on Energy & Commerce, U.S. House of Rep., April 1994; Brigham, P & McGuire, A, "Progress Toward a Fire-Safe Cigarette," *Jnl of Public Health Policy* 16(4):433-439, 1995; Hall, JR, Jr., Nat'l Fire Protection Assoc., *The Smoking-Material Fire Problem*, November 2004. U.S. Fire Admin./Nat'l Fire Data Center, Federal Emergency Management Agency (FEMA), *Residential Smoking Fires & Casualties*, Topical Fire Research Series 5(5), June 2005, <http://www.usfa.fema.gov/downloads/pdf/tfrs/v5i5.pdf>.

*Tobacco industry marketing.* U.S. Federal Trade Commission (FTC), *Cigarette Report for 2004 and 2005, 2007* [data for top five manufacturers only], <http://www.ftc.gov/reports/tobacco/2007cigarette2004-2005.pdf>; FTC, *Federal Trade Commission Smokeless Tobacco Report for the Years 2004 and 2005, 2007* <http://www.ftc.gov/reports/tobacco/0205smokeless0623105.pdf> [top five manufacturers]. State total a prorated estimate based on cigarette pack sales in the state. See, also Campaign factsheet, *Increased Cigarette Company Marketing Since the Multistate Settlement Agreement Went into Effect*, <http://tobaccofreekids.org/research/factsheets>. *Tobacco marketing influence on youth.* Pollay, R, et al., "The Last Straw? Cigarette Advertising & Realized Market Shares Among Youths & Adults," *Jnl of Marketing* 60(2):1-16, April 1996; Evans, N, et al., "Influence of Tobacco Marketing & Exposure to Smokers on Adolescent Susceptibility to Smoking," *Jnl of the Nat'l Cancer Inst* 87(20):1538-45, October 1995. See also, Pierce, JP, et al., "Tobacco Industry Promotion of Cigarettes & Adolescent Smoking," *Jnl of the American Medical Association (JAMA)* 279(7):511-505, February 1998 [with erratum in *JAMA* 280(5):422, August 1998]. See, also, Campaign factsheet, *Tobacco Marketing to Kids*, <http://www.tobaccofreekids.org/research/factsheets/pdf/0008.pdf>.

*North Dakota spending to reduce tobacco use and ranking.* Campaign for Tobacco-Free Kids, et al., *A Broken Promise To Our Children: The 1998 State Tobacco Settlement Nine Years Later*, December 12, 2007, <http://tobaccofreekids.org/reports/settlements>. *North Dakota cigarette tax and rank.* Orzechowski & Walker, *The Tax Burden on Tobacco* (2007) [industry-funded annual report], with updates from state agencies and media reports.

<http://www.tobaccofreekids.org> or <http://tobaccofreekids.org/research/factsheets>

## APPENDIX B

### **BENEFITS & SAVINGS FROM EACH ONE PERCENTAGE POINT DECLINE IN NORTH DAKOTA'S SMOKING RATES**

The following estimates show the benefits and savings that are obtained in North Dakota for each one percentage point decline in adult and youth smoking rates in the state (e.g., from new state investments in tobacco prevention or increased state tobacco tax rates). These estimates can also be switched around to show what harms and costs North Dakota would suffer from each one percentage point increase to its smoking rates or from each one percentage point reduction the State fails to obtain (e.g., because it fails to sustain adequate state tobacco prevention funding or lets its tobacco tax rates erode over time).

#### Fewer Smokers

**Fewer current adult smokers: 4,900**

**Fewer current pregnant smokers: 90**

**Fewer current high school smokers: 400**

**North Dakota kids alive today who will not become addicted adult smokers: 1,400**

#### Public Health Benefits

**Today's adults saved from dying prematurely from smoking: 1,300**

**Today's high school smokers saved from dying prematurely from smoking: 130**

**North Dakota kids alive today who will not die prematurely from smoking: 450**

|   | <u>First Year</u> | <u>Over 5 Years</u> |
|---|-------------------|---------------------|
| <b><i>Fewer smoking-affected births:</i></b>      | <b>90</b>         | <b>430</b>          |
| <b><i>Fewer smoking-caused heart attacks:</i></b> | <b>2</b>          | <b>32</b>           |
| <b><i>Fewer smoking-caused strokes:</i></b>       | <b>1</b>          | <b>17</b>           |

[The number of heart attacks and strokes prevented each year by a one-time decline in adult smoking rates of one percentage point starts out small but grows sharply until it peaks and stabilizes after about ten years.]

#### Monetary Benefits (Reduced Public, Private, and Individual Smoking-Caused Costs)

|   | <u>First Year</u>    | <u>Over 5 Years</u>  |
|---|----------------------|----------------------|
| <b><i>Savings from smoking-affected birth reductions</i></b>    | <b>\$0.1 million</b> | <b>\$0.7 million</b> |
| <b><i>Savings from heart attack &amp; stroke reductions</i></b> | <b>\$0.2 million</b> | <b>\$2.3 million</b> |

[Annual savings from fewer smoking-caused heart attacks and strokes grows substantially each year as more and more are prevented by the initial one percentage point smoking decline. Savings from prevented smoking-caused cancer are even larger, but do not begin to accrue until several years after the initial smoking decline.]

**Reduction to future health costs from adult smoking declines: \$46.6 million**

**Reduction to future health costs from youth smoking declines: \$24.5 million**

[These savings accrue over the lifetimes of the adults who quit and the youth who do not become adult smokers. Roughly 10.6% of smoking-caused healthcare expenditures in North Dakota are paid by its Medicaid program.]

At the same time that they reduce public and private smoking-caused costs, state smoking declines also increase public and private sector worker productivity and strengthen the state's economy.

## RELATED CAMPAIGN FOR TOBACCO-FREE KIDS FACTSHEETS

### **State Tobacco Prevention Programs Reduce Smoking, Smoking-Related Harms and Costs**

*Comprehensive Tobacco Prevention and Cessation Programs Reduce Tobacco Use*

<http://www.tobaccofreekids.org/research/factsheets/pdf/0045.pdf>

*Comprehensive State Tobacco-Control Programs Save Money*

<http://www.tobaccofreekids.org/research/factsheets/pdf/0168.pdf>

*Essential Elements of a Comprehensive State Program*

<http://www.tobaccofreekids.org/research/factsheets/pdf/0015.pdf>

*Health Costs of Smokers vs. Former Smokers vs. Non-Smokers And Related Savings From Quitting*

<http://www.tobaccofreekids.org/research/factsheets/pdf/0327.pdf>

*Immorality and Inaccuracy of the Death Benefit Argument*

<http://tobaccofreekids.org/research/factsheets/pdf/0036.pdf>

*Other factsheets on cost-effectiveness of state tobacco control efforts*

<http://tobaccofreekids.org/research/factsheets/index.php?CategoryID=6>

### **State Tobacco Control Spending vs. Tobacco-Generated Revenue & Tobacco Company Marketing**

*Trends in State Tobacco-Prevention Spending vs. State Tobacco Revenues*

<http://www.tobaccofreekids.org/research/factsheets/pdf/0220.pdf>

*State Tobacco-Prevention Spending vs. Tobacco Company Marketing*

<http://www.tobaccofreekids.org/research/factsheets/pdf/0201.pdf>

### **Tobacco Settlement Payments to the States**

*Coming Increases to State MSA Payments in April 2008 - New Funding for Tobacco Prevention*

<http://tobaccofreekids.org/research/factsheets/pdf/0286.pdf>

*Actual Payments Received by the States from the Tobacco Settlements*

<http://www.tobaccofreekids.org/research/factsheets/pdf/0218.pdf>

*Cigarette Company MSA Payment Withholdings: The NPM Adjustment Threat & How States Can Fight Back*

<http://tobaccofreekids.org/research/factsheets/pdf/0293.pdf>

*Tobacco Settlement Bonus Payments: A 2nd Chance to Keep the Promise & Fund Tobacco Prevention*

<http://tobaccofreekids.org/research/factsheets/pdf/0296.pdf>

## RELATED RESEARCH STUDIES

### **State Tobacco Prevention Programs Reduce Smoking and Reduce Smoking-Related Harms & Costs**

Centers for Disease Control and Prevention (CDC), *Best Practices for Comprehensive Tobacco Control Programs*, Atlanta, GA: U.S. Department of Health and Human Services (HHS), October 2007, [http://www.cdc.gov/tobacco/tobacco\\_control\\_programs/stateandcommunity/best\\_practices/index.htm](http://www.cdc.gov/tobacco/tobacco_control_programs/stateandcommunity/best_practices/index.htm)

CDC, "Effect of Ending an Antitobacco Youth Campaign on Adolescent Susceptibility to Cigarette Smoking – Minnesota, 2002-2003," *MMWR*, 53(14):301-304, 2004, <http://www.cdc.gov/mmwr/PDF/wk/mm5314.pdf>.

DiFranza, JR, et al., "Youth Access to Tobacco: the Effects of Age, Gender, and 'It's the Law' Programs," *AJPH* 86(2):221-24, February 1996.

Farrelly, MC, et al., "The Impact of Tobacco Control Programs on Adult Smoking," *American Journal of Public Health* 98:304-309, February 2008.

Farrelly, MC, et al., "The Impact of Tobacco Control Program Expenditures on Aggregate Cigarette Sales: 1981-2000," *Journal of Health Economics (JHE)* 22:843-859, 2003.

Harris, J, "Status Report on the Massachusetts Tobacco Control Campaign, with a Preliminary Calculation of the Impact of the Campaign on Total Health Care Spending in Massachusetts," 2000.

Hu, T-W, et al., "Reducing Cigarette Consumption in California: Tobacco Taxes vs. an Anti-smoking Media Campaign," *AJPH*, 85:1218-1222, 1995.

Hurley, SF & JP Matthews, "Cost-Effectiveness of the Australian National Tobacco Campaign," *Tobacco Control*, <http://tobaccocontrol.bmj.com/cgi/content/abstract/tc.2008.025213v1>, published online August 21, 2008.

Hyland A, et al., "State and Community Tobacco-Control Programs and Smoking – Cessation Rates Among Adult Smokers: What Can We Learn From the COMMIT Intervention Cohort?" *American Journal of Health Promotion*, March 2006.

Institute of Medicine, *State Programs Can Reduce Tobacco Use*, National Academy of Sciences, 2000.

Lightwood, JM et al., "Effect of the California Tobacco Control Program on Personal Health Care Expenditures," *PLOS Medicine* 5(8): 1214-22, August 2008.

Lightwood, JM, et al., "Short-Term Health and Economic Benefits of Smoking Cessation: Low Birth Weight," *Pediatrics* 104(6):1312-20, December 1999.

McAlister, AL, et al., "Settlement-Funded Tobacco Control in Texas: 2000-2004 Pilot Project Effects on Cigarette Smoking," *Public Health Reports*, May-June, 2006.

Pierce, JP, et al., "Has the California Tobacco Control Program Reduced Smoking?" *JAMA* 280(10):893-899, September 9, 1998.

Tauras, JA, et al., "State Tobacco Control Spending and Youth Smoking," *AJPH* 95:338-344, February 2005.

U.S. Department of Health and Human Services, *Preventing Tobacco Use Among Young People: A Report of the Surgeon General*, 1994.

U.S. Department of Health and Human Services, *Reducing Tobacco Use: A Report of the Surgeon General*, 2000.

### **Healthcare Harms and Costs Caused By Tobacco Use**

CDC, "Annual Smoking-Attributable Mortality, Years of Potential Life Lost, and Economic Costs – United States 1995-1999," *MMWR*, April 11, 2002, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5114a2.htm>.

CDC, "Medical Care Expenditures Attributable to Smoking – United States, 1993," *MMWR* 43(26):1-4, July 8, 1994, <http://www.cdc.gov/mmwr/preview/mmwrhtml/00031803.htm>.

CDC, "Medical Care Expenditures Attributable to Cigarette Smoking During Pregnancy – United States, 1995," *MMWR* 46(44):1048-1050, November 7, 1997  
<http://www.cdc.gov/mmwr/preview/mmwrhtml/00049800.htm>.

Adams, EK & Melvin, CL, "Costs of Maternal Conditions Attributable to Smoking During Pregnancy," *American Jnl of Preventive Medicine* 15(3): 212-19, October 1998.

Chaloupka, FJ & Warner, KE, "The Economics of Smoking," in Culyer, A & Newhouse, J (eds), *Handbook of Health Economics*, 2000.

Hodgsen, T, "Cigarette Smoking and Lifetime Medical Expenditures," *The Millbank Quarterly*, 1992.

Leistikow, B, et al., "Estimates of Smoking-Attributable Deaths at Ages 15-54, Motherless or Fatherless Youths, and Resulting Social Security Costs in the United States in 1994," *Preventive Medicine* 30(5):353-360, May 2000.

Miller, L, et al., "State Estimates of Total Medical Expenditures Attributable to Smoking, 1993," *Public Health Reports*, September/October 1998.

Miller, P, et al., "Birth and First-Year Costs for Mothers and Infants Attributable to Maternal Smoking," *Nicotine & Tobacco Research* 3(1):25-35, February 2001.

Warner, K, et al., "Medical Costs of Smoking in the United States: Estimates, Their Validity, and Their Implications," *Tobacco Control* 8(3):290-300, Autumn 1999.

Zhang, X, et al., "Cost of Smoking to the Medicare Program, 1993," *Health Care Financing Review* 20(4):1-19, Summer 1999.

### **Economic & Business Costs from Smoking and Savings from Tobacco Prevention**

Gottlob, B, *The Fiscal and Economic Impacts of Increasing the Cigarette Tax in New Hampshire*, PolEcon Research, March 2003.

Gottlob, B, *The Fiscal and Economic Impacts of Increasing the Cigarette Tax in Virginia*, PolEcon Research, April 15, 2004, <http://tobaccofreekids.org/pressoffice/VACigTaxReport.pdf>.

Gottlob, B, *The Fiscal and Economic Impacts of Increasing the Cigarette Tax in Texas*, PolEcon Research, in press.

Halpren, MT, et al., "Impact of smoking status on workplace absenteeism and productivity," *Tobacco Control* 10(3):233-238, September 2001.

Shopland, D, et al., "State-Specific Trends in Smoke-Free Workplace Policy Coverage: The Current Population Survey Tobacco Use Supplement, 1993 to 1999," *Journal of Occupational & Environmental Medicine* 43(8):680-86 (August 2001).

U.S. Treasury Department, *Economic Costs of Smoking in the U.S. & the Benefits of Comprehensive Tobacco Legislation*, 1998.

Warner KE, et al., "Employment implications of declining tobacco product sales for the regional economies of the United States," *JAMA* 275(16):1241-6, April 24, 1996.

Warner KE & Fulton, GA, "The economic implications of tobacco product sales in a nontobacco state," *JAMA* 271(10):771-6, March 9, 1994.

Warner KE, "Implications of a nicotine-free society," *Journal of Substance Abuse* 1(3):359-68, 1989.

Zollinger, TW, et al., "The economic impact of secondhand smoke on the health of residents and employee smoking on business costs in Marion County, Indiana for 2000," *Marion County Health Department*, February 2002.

## REPORT ENDNOTES

- <sup>1</sup> Centers for Disease Control and Prevention (CDC), *Best Practices for Comprehensive Tobacco Control Programs*, Atlanta, GA: U.S. Department of Health and Human Services (HHS), October 2007.
- <sup>2</sup> See Campaign for Tobacco-Free Kids (CFTFK) factsheet, *State Cigarette Excise Tax Rates & Rankings*, <http://tobaccofreekids.org/research/factsheets/pdf/0097.pdf>.
- <sup>3</sup> North Dakota Secretary of State website, Ballot Measures to be Considered, <http://www.nd.gov/sos/electvote/elections/considered-measures.html>.
- <sup>4</sup> See, e.g., CFTFK Factsheet, *Comprehensive Tobacco Prevention and Cessation Programs Reduce Tobacco Use*, <http://www.tobaccofreekids.org/research/factsheets/pdf/0045.pdf> and the references cited therein.
- <sup>5</sup> Farrelly, MC, et al., "The Impact of Tobacco Control Programs on Adult Smoking," *American Journal of Public Health* 98:304-309, February 2008. See, also, Hyland, A. et al., "State and Community Tobacco-Control Programs and Smoking-Cessation Rates Among Adult Smokers: What Can We Learn From the COMMIT Intervention Cohort?," *American Journal of Health Promotion* 20(4): 272-81, March-April, 2006.
- <sup>6</sup> Tauras, JA, et al., "State Tobacco Control Spending and Youth Smoking," *American Journal of Public Health* 95:338-344, February 2005.
- <sup>7</sup> Institute of Medicine, *State Programs Can Reduce Tobacco Use*, National Academy of Sciences, 2000; HHS, *Reducing Tobacco Use: A Report of the Surgeon General*, 2000.
- <sup>8</sup> Tobacco Control Section, California Department of Health Services, *California Tobacco Control Update*, August 2000, <http://www.dhs.ca.gov/tobacco/documents/pubs/CTCUpdate.pdf> or <http://www.dhs.ca.gov/tobacco>.
- <sup>9</sup> Lightwood, JM et al., "Effect of the California Tobacco Control Program on Personal Health Care Expenditures," *PLOS Medicine* 5(8): 1214-22, August 2008, <http://medicine.plosjournals.org/periserv/?request=get-document&doi=10.1371%2Fjournal.pmed.0050178>.
- <sup>10</sup> Hurley, SF & JP Matthews, "Cost-Effectiveness of the Australian National Tobacco Campaign," *Tobacco Control*, <http://tobaccocontrol.bmj.com/cgi/content/abstract/tc.2008.025213v1>, published online August 21, 2008.
- <sup>11</sup> Miller, P, et al., "Birth and First-Year Costs for Mothers and Infants Attributable to Maternal Smoking," *Nicotine & Tobacco Research* 3(1):25-35, February 2001. Lightwood, JM, et al., "Short-Term Health and Economic Benefits of Smoking Cessation: Low Birth Weight," *Pediatrics* 104(6):1312-20, December 1999. Adams, EK & Melvin, CL, "Costs of Maternal Conditions Attributable to Smoking During Pregnancy," *American Jnl of Preventive Medicine* 15(3): 212-19, October 1998. U.S. Centers for Disease Control & Prevention (CDC), "Medical Care Expenditures Attributable to Cigarette Smoking During Pregnancy – United States, 1995," *MMWR* 46(44):1048-1050, November 7, 1997, <http://www.cdc.gov/mmwr/preview/mmwrhtml/00049800.htm>.
- <sup>12</sup> Orleans, CT, et al., "Helping Pregnant Smokers Quit: Meeting The Challenge in the Next Decade," *Tobacco Control* 9(Supplemental III):6-11, 2000, <http://tc.bmjournals.com>.
- <sup>13</sup> Lightwood, J & Glantz, S, "Short-term Economic and Health Benefits of Smoking Cessation: Myocardial Infarction and Stroke," *Circulation*, 96:1089-1096, 1997. See, also, Kabir, et al., "Coronary Heart Disease Deaths and Decreased Smoking Prevalence in Massachusetts, 1993-2003," *American Jnl of Public Health* 98(8): 1468-69, August, 2008.
- <sup>14</sup> See, e.g., California Environmental Protection Agency, *Health Effects of Exposure to Environmental Tobacco Smoke*, 1997, [http://www.oehha.org/air/environmental\\_tobacco/finalets.html](http://www.oehha.org/air/environmental_tobacco/finalets.html).
- <sup>15</sup> Hall, JR, Jr., *The U.S. Smoking-Material Fire Problem*, National Fire Protection Association, April 2001; Mudarri, D, *The Costs and Benefits of Smoking Restrictions: An Assessment of the Smoke-Free Environment Act of 1993 (H.R. 3434)*, U.S. Environmental Protection Agency report submitted to the Subcommittee on Health and the Environment, Committee on Energy and Commerce, U.S. House of Representatives, April 1994; CDC, *Making Your Workplace Smokefree: A Decision Maker's Guide*, 1996.

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<sup>16</sup> Tauras, JA, et al., "State Tobacco Control Spending and Youth Smoking," *American Journal of Public Health* 95:338-344, February 2005 [and related data and analysis provided by the authors].

<sup>17</sup> CDC, "Youth Risk Behavior Surveillance, United States, 2007," *MMWR* 57(SS-4), June 6, 2008 <http://www.cdc.gov/mmwr/pdf/ss/ss5704.pdf>. 2007 Youth Risk Behavior Survey.

<sup>18</sup> CDC, "Youth Risk Behavior Surveillance, United States, 2007," *MMWR* 57(SS-4), June 6, 2008 <http://www.cdc.gov/mmwr/pdf/ss/ss5704.pdf>.

<sup>19</sup> Farrelly, MC, et al., "The Impact of Tobacco Control Programs on Adult Smoking," *American Journal of Public Health* 98:304-309, February 2008 [and related data and analysis and North Dakota projections provided by the primary author]. See, also, Hyland, A. et al., "State and Community Tobacco-Control Programs and Smoking-Cessation Rates Among Adult Smokers: What Can We Learn From the COMMIT Intervention Cohort?," *American Journal of Health Promotion* 20(4): 272-81, March-April, 2006.

<sup>20</sup> Lightwood, J & Glantz, S, "Short-term Economic and Health Benefits of Smoking Cessation: Myocardial Infarction and Stroke," *Circulation*, 96:1089-1096, 1997. See, also, Kabir, et al., "Coronary Heart Disease Deaths and Decreased Smoking Prevalence in Massachusetts, 1993-2003," *American Jnl of Public Health* 98(8): 1468-69, August, 2008. Miller, P, et al., "Birth and First-Year Costs for Mothers and Infants Attributable to Maternal Smoking," *Nicotine & Tobacco Research* 3(1):25-35, February 2001. Lightwood, JM, et al., "Short-Term Health and Economic Benefits of Smoking Cessation: Low Birth Weight," *Pediatrics* 104(6):1312-20, December 1999. Adams, EK & Melvin, CL, "Costs of Maternal Conditions Attributable to Smoking During Pregnancy," *American Jnl of Preventive Medicine* 15(3): 212-19, October 1998. U.S. Centers for Disease Control & Prevention (CDC), "Medical Care Expenditures Attributable to Cigarette Smoking During Pregnancy – United States, 1995," *MMWR* 46(44):1048-1050, November 7, 1997, <http://www.cdc.gov/mmwr/preview/mmwrhtml/00049800.htm>.

<sup>21</sup> Hodgson, TA, "Cigarette Smoking and Lifetime Medical Expenditures," *The Millbank Quarterly* 70(1), 1992 [study's results converted to 2004 dollars using Consumer Price Index for medical care prices (following CDC updating formulas and procedures)]; See also, Nusselder, W, et al., "Smoking and the Compression of Morbidity," *Epidemiology and Community Health*, 2000; Warner, KE, et al., "Medical Costs of Smoking in the United States: Estimates, Their Validity, and Their Implications," *Tobacco Control* 8(3):290-300, Autumn 1999, <http://tc.bmjournals.com>.

<sup>22</sup> See Campaign for Tobacco-Free Kids factsheet, *Lifetime Healthcare Costs: Smokers v. Non-Smokers v. Former Smokers*, <http://tobaccofreekids.org/research/factsheets/pdf/0277.pdf>.

<sup>23</sup> Miller, L, et al., "State Estimates of Medicaid Expenditures Attributable to Cigarette Smoking, Fiscal Year 1993," *Public Health Reports* 113:140-151, March/April 1998. On average, the federal government reimburses the states for roughly 57% of their Medicaid program costs, <http://www.hcfa.gov/medicaid/medicaid.htm>.

<sup>24</sup> Lightwood, JM et al., "Effect of the California Tobacco Control Program on Personal Health Care Expenditures," *PLOS Medicine* 5(8): 1214-22, August 2008, <http://medicine.plosjournals.org/perlserv/?request=get-document&doi=10.1371%2Fjournal.pmed.0050178>.

<sup>25</sup> Musich, S, et al., "Association of Health Risks with Workers' Compensation Costs," *Journal of Occupational and Environmental Medicine* 43(6):534-541, June 2001.

<sup>26</sup> CDC, "Making Your Workplace Smokefree: A Decision-Maker's Guide," 1996, [http://www.cdc.gov/tobacco/secondhand\\_smoke/00\\_pdfs/fullguide.pdf](http://www.cdc.gov/tobacco/secondhand_smoke/00_pdfs/fullguide.pdf); Thomas, M, "Just think of it as rewarding nonsmokers," *Orlando Sentinel*, March 28, 2002; Jefferson, S, "State says \$330 million a year goes up in smoke," *Pacific Business News*, October 18, 2002.

<sup>27</sup> CDC, *State Data Highlights*, 2006 [and underlying CDC data/estimates], <http://www.cdc.gov/tobacco/datahighlights/2006/index.htm>; CDC's STATE System average annual smoking attributable productivity losses from 1997-2001(1999 estimates updated to 2004 dollars) CDC, "Annual Smoking-Attributable Mortality, Years of Potential Life Lost, and Economic Costs – United States 1995-1999," *MMWR*, April 11, 2002, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5114a2.htm>.

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<sup>28</sup> Halpren, MT, et al., "Impact of smoking status on workplace absenteeism and productivity," *Tobacco Control* 10(3):233-238, September 2001.

<sup>29</sup> Zollinger, TW, et al., "The economic impact of secondhand smoke on the health of residents and employee smoking on business costs in Marion County, Indiana for 2000," *Marion County Health Dept*, February 2002.

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