As a society, we all pay the price for exposure to secondhand smoke. We know that secondhand smoke causes death and disease in people who don’t smoke. New research now confirms that exposure to secondhand smoke is responsible for substantial excess medical costs in Minnesota—costs that affect each and every resident in our state.

Rising health care costs place a burden on the taxpayer, the employee, and the Minnesota business owner. In this environment, curbing health care costs is a priority among businesses and policymakers. Eliminating major causes of preventable disease—such as exposure to secondhand smoke—provides a clear roadmap for controlling health care costs and, equally, alleviating unnecessary suffering.

This report provides a never-before-seen portrait of the devastating impact of secondhand smoke on Minnesota. Inside are the estimated costs of health care in Minnesota that are directly attributable to secondhand smoke exposure—costs that are completely preventable by eliminating exposure to this toxic substance.

REFERENCES
2. Ibid.
3. Minnesota Partnership for Action Against Tobacco (now ClearWay Minnesota); Blue Cross and Blue Shield of Minnesota; Minnesota Department of Health; University of Minnesota; University of North Dakota; Minneapolis, Minn., 2003.
As a society, we all pay the price for exposure to secondhand smoke. We know that secondhand smoke causes death and disease in people who don’t smoke. New research now confirms that exposure to secondhand smoke is responsible for substantial excess medical costs in Minnesota—costs that affect each and every resident in our state.

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REFERENCES

1. Waters, Hugh R.; Foldes, Steven S.; Alesci, Nina L.; Samet, Jon. The Economic Impact of Secondhand Smoke in Minnesota: Johns Hopkins Bloomberg School of Public Health in collaboration with Blue Cross and Blue Shield of Minnesota, 2007.
2. Ibid.
Each year, secondhand smoke is responsible for $215.7 million in excess medical costs in Minnesota—costs borne by individuals, businesses, and government. ¹ This estimate is conservative; it does not include costs for long-term care, nor does it consider the significant economic cost of lost productivity due to smoking-related illnesses, suffering from diseases caused by secondhand smoke.

²Based on 2003 data, reported in 2006 dollars.

³The U.S. Surgeon General determined a causal link between secondhand smoke and the following conditions:

1. Lung Cancer
2. Sudden Infant Death Syndrome (SIDS)
3. Asthma
4. Otitis Media and Middle Ear Effusion
5. Acute Lower Respiratory Illness (birth to age 3 only)
6. Low Birth Weight (under 5.5 lbs.)
7. Heart Attacks and other Heart Diseases

To get a sense of the magnitude of these medical costs caused by secondhand smoke, one can compare it with items in Minnesota’s state budget. The chart below compares Minnesota’s $215.7 million in medical costs caused by secondhand smoke with items in Minnesota’s state budget.

The researchers included Hugh R. Waters, Ph.D., a health economist and Assistant Professor of International Health at Johns Hopkins University, and Jon Samet, M.D., M.S., the Jacob I. and Irene B. Fabrikant Professor in Health, Risk and Society, and Chair of Epidemiology at Johns Hopkins University.
Each year, secondhand smoke is responsible for $215.7 million in excess medical costs in Minnesota—costs borne by individuals, businesses, and government. This estimate is conservative; it does not include costs for long-term care, nor does it consider the significant economic cost of lost productivity due to the more than 66,699 Minnesota adults suffering from diseases caused by secondhand smoke.

The researchers included Hugh R. Waters, Ph.D., a health economist with conditions for which the U.S. Surgeon General has called for increased research, and Irene B. Fabrikant, Ph.D., the John A. Hartford Foundation Professor in Health, Risk and Society, and Chair of Epidemiology at Johns Hopkins University; Steven S. Foldes, Ph.D., the Irene B. Fabrikant Professor in Health, Risk and Society, and Research Consultant at Blue Cross and Blue Shield of Minnesota; and John L. Sheehan, Ph.D., the Director of Research and Evaluation at Blue Cross and Blue Shield of Minnesota.

Today, despite progress, most Minnesotans continue to face the health hazards of secondhand smoke. While Minnesotans, Saint Paul, Minneapolis, and other communities have passed policies protecting residents from secondhand smoke, these measures protect only a portion of the state. If Minnesota were to substantially reduce the overall economic and health impact of preventable disease, protecting the entire state from the dangers of secondhand smoke is a logical place to start.

The chart below compares Minnesota’s $215.7 million in public and private health care expenditures caused by secondhand smoke with items in Minnesota’s state budget. To get a sense of the magnitude of these medical costs, note that Minnesota spends more on excess medical costs due to secondhand smoke than it does on early childhood education, transportation, and Veterans Homes combined. For purposes of comparison only, this chart illustrates just how much taxpayers, businesses, and Minnesota government spend on these preventable costs in contrast to how much the state is able to spend on the well-being of its residents.

### The Costs: $215.7 Million Annually

<table>
<thead>
<tr>
<th>Conditions as of Age Group</th>
<th>NUMBER OF MINNESOTANS TREATED FOR CONDITIONS CAUSED BY SECONDHAND SMOKE</th>
<th>TOTAL COST (IN 2006 DOLLARS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth to Age 17</td>
<td>Low Birth Weight (under 5.5 lbs.) 795</td>
<td>$36,051,594</td>
</tr>
<tr>
<td></td>
<td>Acute Lower Respiratory Infections (birth to age 3 only) 7,088</td>
<td>$7,756,287</td>
</tr>
<tr>
<td></td>
<td>Otitis Media and Middle Ear Effusion 32,947</td>
<td>$18,667,410</td>
</tr>
<tr>
<td></td>
<td>Asthma 17,547</td>
<td>$21,129,913</td>
</tr>
<tr>
<td>Ages 18+</td>
<td>Low Birth Weight (under 5.5 lbs.) 388</td>
<td>$15,063,995</td>
</tr>
<tr>
<td></td>
<td>Heart Attacks and other Heart Diseases 7,034</td>
<td>$110,041,403</td>
</tr>
<tr>
<td></td>
<td>TOTAL 66,699</td>
<td>$215,712,572</td>
</tr>
</tbody>
</table>

### The U.S. Surgeon General’s Six Conclusions on Secondhand Smoke

1. Secondhand smoke causes premature death and disease in children and adults who do not smoke.
2. Children exposed to secondhand smoke are at an increased risk for sudden infant death syndrome (SIDS), acute respiratory infections, ear problems, and more severe asthma. Smoking by parents (SIDS), acute respiratory infections, ear problems, and more severe asthma. Smoking by parents
3. Exposure of adults to secondhand smoke has immediate adverse effects on the cardiovascular system and causes chronic heart disease and lung cancer.
4. The scientific evidence confirms there is no risk-free level of exposure to secondhand smoke.
5. Many millions of Americans, both children and adults, are still exposed to secondhand smoke in their homes and workplaces.
6. Eliminating smoking in indoor spaces fully protects nonsmokers from exposure to secondhand smoke. Separating smokers from nonsmokers, cleaning the air, and ventilating buildings can eliminate nonsmokers’ exposure to secondhand smoke.

### The perspective: How costs stack up against the state budget

<table>
<thead>
<tr>
<th>Health Care Costs Caused by Secondhand Smoke vs. State Budget Items</th>
<th>Cost in Millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation: Highway Safety</td>
<td>$105 million</td>
</tr>
<tr>
<td>Child Care Programs: $275 million</td>
<td></td>
</tr>
<tr>
<td>Early Childhood Education: $47 million</td>
<td></td>
</tr>
<tr>
<td>Department of Agriculture: $40 million</td>
<td></td>
</tr>
<tr>
<td>Community and Family Health Programs: $40 million</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>$837 million</td>
</tr>
</tbody>
</table>

### Deaths Caused by Secondhand Smoke in Minnesota, 2005

<table>
<thead>
<tr>
<th>CAUSE OF DEATH</th>
<th>NUMBER OF DEATHS CAUSED BY SECONDHAND SMOKE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Birth Weight (under 5.5 lbs.)</td>
<td>44</td>
</tr>
<tr>
<td>Sudden Infant Death Syndrome (SIDS)</td>
<td>112</td>
</tr>
<tr>
<td>Lung Cancer</td>
<td>411</td>
</tr>
<tr>
<td>Heart Attacks and other Heart Diseases</td>
<td>581</td>
</tr>
</tbody>
</table>

### Medical Costs Caused by Secondhand Smoke vs. State Budget Items

<table>
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<tr>
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<td>Total</td>
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</tbody>
</table>
Two out of three (67%) adult Minnesotans reported exposure to secondhand smoke in the previous seven days in 2005, the most recent year for which data are available. That means in any given week, an estimated 2.4 million residents of Minnesota are exposed to secondhand smoke in the previous seven days. Consequently, the state is touched by the serious economic impact of secondhand smoke.

EXPOSURE TO SECONDHAND SMOKE: AN ONGOING THREAT TO MINNESOTANS

Medical Costs of Health Conditions Caused by Secondhand Smoke in Minnesota, 2003*

<table>
<thead>
<tr>
<th>CAUSE OF DEATH</th>
<th>NUMBER OF DEATHS CAUSED BY SECONDHAND SMOKE</th>
<th>MEDICAL COST</th>
<th>CAUSE OF DEATH</th>
<th>NUMBER OF DEATHS CAUSED BY SECONDHAND SMOKE</th>
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<tr>
<td>Heart Attacks and other Heart Diseases</td>
<td>411</td>
<td>$110,041,403</td>
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<td>112</td>
<td>$7,758,287</td>
</tr>
<tr>
<td>Otitis Media and Middle Ear Effusion</td>
<td>19,667,419</td>
<td>Acute Lower Respiratory Illness (birth to age 3 only)</td>
<td>7,758,287</td>
<td>Asthma</td>
<td>21,129,913</td>
</tr>
</tbody>
</table>
| Medical Costs of Health Conditions Caused by Secondhand Smoke in Minnesota, 2003**

<table>
<thead>
<tr>
<th>CONDITONS BY AGE GROUP</th>
<th>NUMBER OF MINNESOTANS TREATED FOR CONDITIONS CAUSED BY SECONDHAND SMOKE</th>
<th>TOTAL COST (IN 2006 DOLLARS)</th>
</tr>
</thead>
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<tr>
<td>Birth to Age 17</td>
<td>Low Birth Weight (under 5.5 lbs.)</td>
<td>342,947</td>
</tr>
<tr>
<td>Ages 18+</td>
<td>Lung Cancer</td>
<td>17,547</td>
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<td>Heart Attacks and other Heart Diseases</td>
<td>7,034</td>
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<td>66,699</td>
<td>$215,712,572</td>
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</tbody>
</table>

† The U.S. Surgeon General determined a causal link between these causes of death and secondhand smoke exposure in the 2006 report.

‡ The U.S. Surgeon General determined a causal link between these conditions and secondhand smoke exposure in the 2006 report.

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Dollars reported in 2006 dollars.

The chart below compares Minnesota’s $215.7 million in public and private health care expenditures caused by secondhand smoke with items in Minnesota’s state budget. To get a sense of the magnitude of these medical costs in contrast to how much the state is able to spend on the well-being of its residents.

Financial findings of the report were developed by the Johns Hopkins Bloomberg School of Public Health in collaboration with the Blue Cross and Blue Shield of Minnesota. The researchers used Minnesota-specific data sources to examine the state’s health care costs and deaths associated with conditions for which the U.S. Surgeon General has determined a causal link to secondhand smoke. The researchers included Hugh R. Waters, Ph.D., a health economist and Assistant Professor of International Health at Johns Hopkins University. Steve E. Tilles, Ph.D., the Director of Research and Evaluation at Blue Cross and Blue Shield of Minnesota; and Jon Samet, M.D., M.S., the Jacob I. and Irene B. Fabrikant Professor in Health, Risk and Society and Chair of Epidemiology at Johns Hopkins University. Dr. Samet was the senior scientific editor for the 2004 and 2005 Minnesota Surgeon General reports on smoking and secondhand smoke, respectively.

The perspective: How costs stack up against the state budget

Health care costs caused by secondhand smoke vs. state budget items

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>$0</td>
<td>Medicaid, Community Health Programs: $40 million</td>
</tr>
<tr>
<td>$5</td>
<td>Community and Family Health Programs: $40 million</td>
</tr>
<tr>
<td>$10</td>
<td>Transportation: $103 million</td>
</tr>
<tr>
<td>$15</td>
<td>Department of Public Safety, $95 million</td>
</tr>
<tr>
<td>$20</td>
<td>Child Care Programs: $19 million</td>
</tr>
<tr>
<td>$25</td>
<td>Early Childhood Education: $47 million</td>
</tr>
<tr>
<td>$30</td>
<td>Department of Agriculture: $40 million</td>
</tr>
<tr>
<td>$35</td>
<td>Total: $103 million</td>
</tr>
<tr>
<td>$40</td>
<td>Community and Family Health Programs: $40 million</td>
</tr>
<tr>
<td>$45</td>
<td>Transportation: $103 million</td>
</tr>
<tr>
<td>$50</td>
<td>Total: $206 million</td>
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<tr>
<td>$55</td>
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<tr>
<td>$60</td>
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<tr>
<td>$110</td>
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<tr>
<td>$115</td>
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<tr>
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</tr>
<tr>
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REFERENCES


2. Ibid.


