The University of Delaware is committed to assuring equal opportunity to all persons and does not discriminate on the basis of race, color, gender, religion, ancestry, national origin, sexual preference, veteran status, age, or disability in its educational programs, activities, admissions, or employment practices as required by Title IX of the Educational Amendments of 1972, Title VI of the Civil Rights Act of 1964, the Rehabilitation Act of 1973, the Americans with Disabilities Act, other applicable statutes, and University policy. Inquiries concerning these statutes and information regarding campus accessibility and Title VI should be referred to the Affirmative Action Officer, 305 Hullihen Hall, 302/831-2835 (voice), 302/831-4552(TDD).
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>List of Tables</td>
<td>iv</td>
</tr>
<tr>
<td>List of Figures</td>
<td>v</td>
</tr>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Smoking in Delaware</td>
<td>2</td>
</tr>
<tr>
<td>Second-Hand Smoke</td>
<td>7</td>
</tr>
<tr>
<td>Tobacco and the Media</td>
<td>16</td>
</tr>
<tr>
<td>Observations</td>
<td>24</td>
</tr>
<tr>
<td>Appendix</td>
<td>26</td>
</tr>
</tbody>
</table>
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-1</td>
<td>Upper Estimates of Exposure to Smoking at Home</td>
</tr>
</tbody>
</table>
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-1</td>
<td>Smoked 100 Cigarettes in Your Lifetime by Age Group</td>
<td>2</td>
</tr>
<tr>
<td>2-2</td>
<td>Frequency of Smoking by Gender</td>
<td>3</td>
</tr>
<tr>
<td>2-3</td>
<td>Planning to Quit Smoking by Race</td>
<td>4</td>
</tr>
<tr>
<td>2-4</td>
<td>Planning to Quit Smoking by Frequency of Smoking</td>
<td>4</td>
</tr>
<tr>
<td>2-5</td>
<td>Had Seen “Quitline” Advertisement by Frequency of Smoking</td>
<td>5</td>
</tr>
<tr>
<td>3-1</td>
<td>Number of Smokers at Home by Frequency of Smoking</td>
<td>7</td>
</tr>
<tr>
<td>3-2</td>
<td>Days per Week of Exposure to Other’s Smoke at Home by Frequency of Smoking</td>
<td>8</td>
</tr>
<tr>
<td>3-3</td>
<td>Days per Week of Exposure to Other’s Smoke at Work by Frequency of Smoking</td>
<td>9</td>
</tr>
<tr>
<td>3-4</td>
<td>People Should be Protected from Second-hand Smoke by Frequency of Smoking</td>
<td>10</td>
</tr>
<tr>
<td>3-5</td>
<td>Number of Friends Who Smoke by Frequency of Smoking</td>
<td>11</td>
</tr>
<tr>
<td>3-6</td>
<td>Second-hand Smoke Affects Restaurant Choice by Frequency of Use</td>
<td>12</td>
</tr>
<tr>
<td>3-7</td>
<td>Second-hand Smoke Affects Restaurant Choice by Frequency of Smoking</td>
<td>12</td>
</tr>
<tr>
<td>3-8</td>
<td>Utilization of Restaurants if Smoke-free by Frequency of Smoking</td>
<td>13</td>
</tr>
<tr>
<td>3-9</td>
<td>Avoided Bars Because of Second-hand Smoke by Frequency of Smoking</td>
<td>14</td>
</tr>
<tr>
<td>4-1</td>
<td>Heard Messages about Dangers of Second-hand Smoke by Frequency of Smoking</td>
<td>16</td>
</tr>
<tr>
<td>4-2</td>
<td>Source of Messages about Dangers of Second-hand Smoke by Frequency of Smoking</td>
<td>17</td>
</tr>
<tr>
<td>4-3</td>
<td>Heard Messages from Local People about Delaware Quitline by Frequency of Smoking</td>
<td>18</td>
</tr>
<tr>
<td>4-4</td>
<td>Source of Messages about Delaware Quitline</td>
<td>18</td>
</tr>
<tr>
<td>4-5</td>
<td>Have Seen TV Cartoon Character Talking about Quitting Smoking by Frequency of Smoking</td>
<td>19</td>
</tr>
<tr>
<td>4-6</td>
<td>Sources of Information about Health and Health Services by Frequency of Smoking</td>
<td>20</td>
</tr>
<tr>
<td>4-7</td>
<td>Items Owned with Tobacco Company Logo by Frequency of Smoking</td>
<td>21</td>
</tr>
<tr>
<td>4-8</td>
<td>Looked at Tobacco Ads in Magazines this Week by Frequency of Smoking</td>
<td>22</td>
</tr>
<tr>
<td>4-9</td>
<td>Reaction to Tobacco Ads in Magazines by Frequency of Smoking</td>
<td>22</td>
</tr>
</tbody>
</table>
Introduction

The Delaware Division of Public Health has developed and implemented a program that is intended to help educate Delawareans and to provide assistance to the current generation of smokers that need assistance in quitting. The Delaware Quitline is perhaps the most well known part of this effort.

The survey that was conducted by the Center for Applied Demography & Survey Research (CADSR) located at the University of Delaware had three primary objectives. First, the survey measured the prevalence of smoking within the state. Second, it was used to gather information about exposure to smoke from those other than the respondent. Finally, questions were asked to measure both the penetration of the media campaign that stresses tobacco control and the awareness of tobacco company advertising.

The survey began on April 7, 2002 and was completed on June 8, 2002. The data is centered on April 23, 2002. A total of 1,112 adult Delawareans were interviewed during this time period. The telephone numbers were generated randomly to insure that both listed and unlisted numbers had an equal chance to participate. This is commonly referred to as random digit dialing. Up to 15 attempts were made to contact a potential respondent at each telephone number. Once it was ascertained that the number was in a private residence a random adult was chosen and that person was asked to participate. Approximately 60% of those respondents selected were willing to participate and complete the survey.

The sample was selected as a simple random sample of the State of Delaware. Of those interviewed, 159 were from Kent County, 677 were from New Castle County, and 252 were from Sussex County. Twenty-four of the respondents would not answer this question. Overall the distribution was within 2% of the households reported in the 2000 Decennial Census. Female respondents comprised 56% of the sample, which is slightly higher than what would have been expected from a random sample (53%). Respondents who were 65 years of age or older accounted for nearly 17% of the sample in contrast to 13% reported by the Census. To account for these differences, even though they are not large, the data was weighted to reflect the adults by age, gender, and county and those are the results presented in this document.

This report has three major sections following this brief introduction. In the first section, the current status of smoking in Delaware is addressed. Information about second-hand smoke is found in the next section. The third section addresses the data gathered about tobacco and the media. The report concludes with some general observations about the survey.
Smoking in Delaware

Respondents were first asked if they had smoked at least 100 cigarettes in their lifetime. This question helps separate people into one of three groups: (1) never smoked, (2) smoked but quit, and (3) current smokers. The results are summarized in Figure 2-1, below by age group.

Figure 2-1
Smoked 100 Cigarettes in Your Lifetime by Age Group

<table>
<thead>
<tr>
<th>Age Group</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>52.8</td>
<td>47.2</td>
</tr>
<tr>
<td>25-34</td>
<td>54.5</td>
<td>45.5</td>
</tr>
<tr>
<td>35-44</td>
<td>51.7</td>
<td>48.3</td>
</tr>
<tr>
<td>45-54</td>
<td>40.7</td>
<td>59.3</td>
</tr>
<tr>
<td>55-64</td>
<td>41.2</td>
<td>58.8</td>
</tr>
<tr>
<td>65+</td>
<td>44.6</td>
<td>55.4</td>
</tr>
<tr>
<td>Total</td>
<td>48.1</td>
<td>51.9</td>
</tr>
</tbody>
</table>

Source: Center for Applied Demography & Survey Research, University of Delaware

The figure shows that there is a distinct difference of about 10 percent in whether the respondent had ever smoked between those over 44 and those under. These results are very much in agreement with those observed in the Behavioral Risk Factor Survey (BRFSS) for 2001, which is a much larger sample but covers many more topics. These results suggest that the Surgeon General’s report in 1964 had some long lasting impact but still does not persuade at least 40% of the population from trying smoking. Men are more prone to begin smoking (59%) than women (45%). This relationship also holds when one considers age as well. Young men are more likely to try smoking (51%) compared with young women (41%). That difference is maintained between the genders as age increases. (Obviously, an older person has had more opportunity to begin smoking, but it is assumed that the practice begins earlier rather than later.)
The frequency of smoking among today’s adult Delawareans is shown in Figure 2-2, above. Just under 25% of that population smokes and that figure is confirmed by the results from the BRFSS survey as well. This suggests that about half of the people who try smoking at some point in their life do not make it part of their daily behavior.

About three quarters of those that currently smoke indicate that they smoke every day (107,000 adults). After examining the distribution of those that smoke on “some days” (40,000 adults), these smokers are fairly evenly split between those that smoke about every other day and those that smoke less frequently, once or twice a week.

Among the population of smokers there are always a number who plan to quit smoking within the next 30 days and this sample is no exception. As is shown in Figure 2-3 below, almost 40% of the smokers were at least thinking about stopping smoking. This correlates very well with the BRFSS that reports 52% of smokers at least quit for one day.

There appeared to be little difference in this inclination between men and women and only a slight orientation of older people to doing so. Differences were not detectable by education, income, or presence of children in the household. However as the figure shows there was a significant difference between the Caucasian population and all other minorities.
Figure 2-3
Planning to Quit Smoking by Race

<table>
<thead>
<tr>
<th></th>
<th>Caucasian</th>
<th>African-American</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don't Know</td>
<td>6.9</td>
<td>2.7</td>
<td>3</td>
<td>5.9</td>
</tr>
<tr>
<td>No</td>
<td>61.1</td>
<td>37.8</td>
<td>45.5</td>
<td>56</td>
</tr>
<tr>
<td>Yes</td>
<td>32</td>
<td>59.5</td>
<td>51.5</td>
<td>38.1</td>
</tr>
</tbody>
</table>

Source: Center for Applied Demography & Survey Research, University of Delaware

Figure 2-4
Planning to Quit Smoking by Frequency of Smoking

<table>
<thead>
<tr>
<th></th>
<th>Every Day</th>
<th>Some Days</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don't Know</td>
<td>5</td>
<td>6.8</td>
<td>5.5</td>
</tr>
<tr>
<td>No</td>
<td>66.8</td>
<td>26.1</td>
<td>56</td>
</tr>
<tr>
<td>Yes</td>
<td>28.2</td>
<td>67.1</td>
<td>38.5</td>
</tr>
</tbody>
</table>

Source: Center for Applied Demography & Survey Research, University of Delaware
African-American smokers were almost 30% more likely to respond that they were considering stopping smoking. The reason is not at all clear. One might suspect that this result is caused by income differentials, but there is no correlation between income and the probability that a person is planning to stop smoking. Part of this difference may come from the frequency of smoking. While African-Americans are just as likely to smoke as Caucasians, the survey finds that they are half as likely to smoke every day. The impact of that differential is important as is shown in Figure 2-4, above.

The data displayed in Figure 2-4 show that “every day” smokers (28.2%) are less than half as likely to say they are going to try to quit smoking in the next 30 days as “some day” smokers (67.1%). This relationship coupled with the finding that African-Americans are far less likely to be “every day” smokers, leads to the result found in Figure 2-3.

The data displayed in Figure 2-4 show that “every day” smokers (28.2%) are less than half as likely to say they are going to try to quit smoking in the next 30 days as “some day” smokers (67.1%). This relationship coupled with the finding that African-Americans are far less likely to be “every day” smokers, leads to the result found in Figure 2-3.

One of the tools used in the program to reduce smoking in Delaware is the “Quitline”. It is a service provided through a toll-free number designed to assist those who would like to stop smoking. In Figure 2-5 above, it is clear the advertisement is reaching those most in need of the service. More than half of the “every day” smokers and slightly less than half of the “some days” smokers have been exposed to the material.
Even from this short look at smoking in Delaware, as derived from the survey, it is possible to make several observations. First, three quarters of smokers are “every day” smokers and these “every day” smokers are far less likely to try to quit smoking than those that smoke less frequently. This may suggest that focusing on reducing the frequency of smoking may be a promising strategy.

The second point is that the “Quitline” program is reaching over half of the smokers. Given the relatively short period of time it has been available, the level of penetration is laudable. It is also interesting to see that the awareness of the respondent increases with the frequency of smoking. Even though “every day” smokers are the least likely to quit, they are the most aware of the program. This is very positive.

Finally, about 50% of adults try smoking but only 25% continue smoking. Part-time smokers are probably the most likely to quit since they are the most focused on trying. Since only about 30% of the “every day” smokers are even thinking of quitting, there is at least some potential to reduce the population of smokers by about half. To get below that probably unachievable level would require that a much smaller number of adults smoke those first 100 cigarettes.

In the next part of this report, the focus will shift to second-hand smoke and the interaction of non-smokers with the smoking environment. Given the recent legislation that bans smoking in the casinos, these results should prove interesting.
Second-Hand Smoke

During the last decade much attention has been focused on the prevalence and impact of second-hand smoke. Particular attention has been focused on the exposure of children in the home. In addition, employers faced with potential liability in the workplace have moved to ban smoke from the workplace. The concern has to some degree turned toward the non-smoker who must contend with a potentially injurious practice. The latest issue to arise is that of smoking in privately owned facilities that serve the public, in particular, bars and restaurants. This survey addressed all of the issues and the key findings are provided in this section.

<table>
<thead>
<tr>
<th>Frequency of Smoking</th>
<th>Percent</th>
<th>None</th>
<th>One or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every day</td>
<td></td>
<td>40.3</td>
<td>59.7</td>
</tr>
<tr>
<td>Some days</td>
<td></td>
<td>47.3</td>
<td>52.7</td>
</tr>
<tr>
<td>Not at all</td>
<td></td>
<td>82.3</td>
<td>17.7</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>72.4</td>
<td>27.6</td>
</tr>
</tbody>
</table>

In Figure 3-1 above, it is easy to see that smokers are more than three times more likely to have another person in the household that smokes than non-smokers. This, of course, excludes the respondent. Overall, just over 65% of the households in Delaware are smoke free, at least from the occupants, i.e. not considering visitors.

In order to get some idea of the magnitude of the exposure, respondents were asked how many days per week they were exposed to the smoke. Those results are found in Figure 3-2 below. The figure shows that the 78% of “every day” smokers who live with another smoker are exposed to smoke seven days a week. This falls to 57% for “some days” smokers and 34% for
non-smokers. Thus frequent smokers are also exposed to substantially higher amounts of second-hand smoke as well as their own.

**Figure 3-2**

*Days per Week of Exposure to Other’s Smoke at Home by Frequency of Smoking*

Using these data it is possible to arrive at an estimate of exposure to smoke in the home. The estimates are shown in Table 1, below. About 38% of the total population is exposed to smoke at home. This is somewhat higher than the estimate of 35% of the households that have someone who smokes.

**Table 3-1**

*Upper Estimates of Exposure to Smoking at Home by Age Group*

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Exposed</th>
<th>Not Exposed</th>
<th>Total</th>
<th>Percent Exposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4</td>
<td>22,000</td>
<td>37,000</td>
<td>59,000</td>
<td>37.3%</td>
</tr>
<tr>
<td>5-9</td>
<td>18,000</td>
<td>30,000</td>
<td>48,000</td>
<td>37.5%</td>
</tr>
<tr>
<td>10-14</td>
<td>26,000</td>
<td>37,000</td>
<td>63,000</td>
<td>41.3%</td>
</tr>
<tr>
<td>15-17</td>
<td>15,000</td>
<td>20,000</td>
<td>35,000</td>
<td>42.9%</td>
</tr>
<tr>
<td>18+ (non-smokers)</td>
<td>79,000</td>
<td>369,000</td>
<td>448,000</td>
<td>17.6%</td>
</tr>
<tr>
<td>18+ (smokers)</td>
<td>147,000</td>
<td>0</td>
<td>147,000</td>
<td>100.0%</td>
</tr>
<tr>
<td>Total</td>
<td>307,000</td>
<td>493,000</td>
<td>800,000</td>
<td>38.4%</td>
</tr>
</tbody>
</table>

Source: Center for Applied Demography & Survey Research, University of Delaware
Smokers however are less likely to live alone and are more likely to live with children than non-smokers. In fact 39% of children are likely to be exposed to second-hand smoke at home. However, all of these estimates should be considered as upper limits since we do not know if there are rules in the smoker’s household that they cannot smoke either in the house or in areas frequented by others.

The second most likely place where people can be exposed to second-hand smoke is at work. Respondents were asked how many days of the week they were exposed to smoke at work. The results found in Figure 3-2 above, show a similar pattern to those for exposure in the home. The higher level of exposure for the “every day” smoker is not particularly surprising for two reasons. First, it is conceivable that smokers may choose to work places with liberal smoking policies. Second, they will undoubtedly share designated or off-site smoking areas with other smokers. Non-smokers exhibit the opposite behavior but are less likely to avoid smoke at work than at home. The total number of non-smokers who are exposed at work but not at home is estimated to be 74,000. This reduces the total number of people who are not exposed to second-hand smoke from 493,000 (see Table 3-1) to 419,000.
Respondents were asked if people should be protected from second-hand smoke. This, of course, was a much-debated issue in legislation that was recently signed into law in Delaware. Almost 90% of all non-smokers agreed with the proposition in this survey, and nearly 80% of smokers also agreed. Overall only 10% of the respondents felt that there was no reason to take action to protect Delawareans from second-hand smoke. Perhaps this indicates that the issue is now truly recognized a health issue rather than one of personal freedom.

In an earlier figure, smokers were shown to be much more likely to be living with someone who smokes than non-smokers. Apparently friends of smokers are also more likely to smoke than those of non-smokers. The results are reported in Figure 3-5, below.

Smokers are more than twice as likely to have friends that smoke than non-smokers. Smokers on average have 2.56 smoking friends compared to non-smokers with 0.76 smoking friends. (It is also possible that smokers have more friends than non-smokers although that was not measured in this survey.) This varies little by gender as is clearly shown in the graph. The only difference of substance is that non-smoking males are more likely to have friends that are smokers than non-smoking females.
Second-Hand Smoke

One of the most contentious issues surrounding second-hand smoke is its impact on Delaware’s businesses, in particular the restaurant business. A series of questions were asked of respondents to this survey to better understand and quantify the issue.

Respondents were first asked how often they utilized restaurants excluding fast food restaurants. They were then asked if second-hand smoke affected their choice of restaurants. The results for these two questions are found in Figure 3-6, below.

Just over a third of the respondents reported that second-hand smoke affected their choice of restaurants. This proportion held true also for all but the most frequent and least frequent users of restaurants. (In general, smokers and non-smokers varied little in the frequency of their use of restaurants.) These results suggest that about 215,000 adult Delawareans consider the amount of second-hand smoke as important in their choice of a restaurant. Combining this data with the frequency of use data in Figure 3-6, an estimated 300,000 restaurant visits per week could be affected by the consideration of second hand smoke.

It is no surprise that respondents feel differently about second-hand smoke depending on their smoking status. These results are found in Figure 3-7, below. The “every day smokers” are unaffected by the presence of second-hand smoke in their choice of restaurants. Only about 4%
Figure 3-6
Second-hand Smoke Affects Restaurant Choice by Frequency of Use

<table>
<thead>
<tr>
<th>Frequency of Use</th>
<th>Yes %</th>
<th>No %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td>14.3</td>
<td>85.7</td>
</tr>
<tr>
<td>Several times a week</td>
<td>41</td>
<td>59</td>
</tr>
<tr>
<td>Once a week</td>
<td>37.7</td>
<td>62.3</td>
</tr>
<tr>
<td>Once a month</td>
<td>36.2</td>
<td>63.8</td>
</tr>
<tr>
<td>Rarely</td>
<td>27.9</td>
<td>72.1</td>
</tr>
<tr>
<td>Total</td>
<td>36.5</td>
<td>63.5</td>
</tr>
</tbody>
</table>

Source: Center for Applied Demography & Survey Research, University of Delaware

Figure 3-7
Second-hand Smoke Affects Restaurant Choice by Frequency of Smoking

<table>
<thead>
<tr>
<th>Frequency of Smoking</th>
<th>Yes %</th>
<th>No %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every Day</td>
<td>3.7</td>
<td>96.3</td>
</tr>
<tr>
<td>Some Days</td>
<td>9.6</td>
<td>90.4</td>
</tr>
<tr>
<td>Not at all</td>
<td>46.4</td>
<td>53.6</td>
</tr>
<tr>
<td>Total</td>
<td>36.5</td>
<td>63.5</td>
</tr>
</tbody>
</table>

Source: Center for Applied Demography & Survey Research, University of Delaware
of this group consider this factor when choosing a restaurant. In stark contrast, just under half of all non-smokers are concerned enough to include this consideration when making a choice.

**Figure 3-8**
Utilization of Restaurants if Smoke-free by Frequency of Smoking

<table>
<thead>
<tr>
<th></th>
<th>Every Day</th>
<th>Some Days</th>
<th>Not at all</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less Likely</td>
<td>36.2</td>
<td>6.8</td>
<td>2.1</td>
<td>8.4</td>
</tr>
<tr>
<td>Same</td>
<td>59.5</td>
<td>74</td>
<td>59.2</td>
<td>60.3</td>
</tr>
<tr>
<td>More Likely</td>
<td>4.3</td>
<td>19.2</td>
<td>38.7</td>
<td>31.3</td>
</tr>
</tbody>
</table>

Source: Center for Applied Demography & Survey Research, University of Delaware

In order to assess the likely change in restaurant use in the event of a smoking ban, respondents were asked how their utilization of restaurants would change. Those results are found in Figure 3-8, above. Once again the response varied considerably depending on smoking status. Overall, a net increase in utilization of 23% is indicated with 31.3% saying that they would be more likely to use smoke-free restaurants and 8.4% expecting to use them less.

Predictably, more than a third “every day” smokers expect to use restaurants less if a ban were in place. That proportion is substantially less for the “some days” smokers. The reduction in use by smokers is more than offset by increased utilization by non-smokers where more than a third report that they would be more likely to use smoke-free restaurants.
The final question in this sequence addressed the issue of second-hand smoke in bars and
nightclubs. Respondents were asked if they have avoided businesses of this type because of
second-hand smoke. The results are found in Figure 3-9, above.

The overall percentage of those who do avoid bars because of second-hand smoke
(24.1%) is lower than that for restaurants (36.5%). That ignores the fact that 27.2% of adult
Delawareans do not frequent bars while only 15% rarely or never use restaurants.

Relatively few “every day” smokers avoid bars because of second-hand smoke. This
proportion increases as the frequency of smoking decreases as it did for restaurant usage. It is also
important to note that non-smokers are less likely to frequent bars than smokers. This suggests
that the impact on bars of a smoking ban is likely to be different than that for restaurants.

Estimates of the utilization of smoke-free bars can be developed if utilization of smoke-
free restaurants is at least an indicator. Since 80% of the respondents who frequented bars replied
the same way to the questions on sensitivity to second-hand smoke in restaurants as they did for
bars, this would seem to be a reasonable assumption. Under these assumptions, an additional
87,000 customers might be added by making bars smoke-free. If there are differences in
expenditures between smokers and non-smokers, then the net effect will change accordingly.
The data presented in this section shows that a significant number of Delawareans are exposed to second-hand smoke at home or at work. Even more would be counted if exposure in restaurants and bars were included. Fortunately, both smokers and non-smokers are in agreement that people should be protected from second-hand smoke. The good news is that making restaurants and bars smoke-free may lead to better business not worse.

The next section deals exclusively with the media campaign that is intended to reduce the number of Delawareans that smoke and to inform them about second-hand smoke.
Tobacco and the Media

The final objective of the Tobacco Attitudes and Media Survey was to assess the degree to which the current media program was reaching adult Delawareans. While awareness doesn’t necessarily translate into action, it is a necessary first step. The program is primarily focused on promoting awareness of the dangers of second-hand smoke and the availability of the Delaware Quitline. The survey is used to assess the visibility of the media campaign and to learn how people obtain information about health issues and services. Finally, the reaction of respondents to tobacco advertisements was addressed.

Figure 4-1
Heard Messages about Dangers of Second-hand Smoke by Frequency of Smoking

<table>
<thead>
<tr>
<th>Frequency of Smoking</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every day</td>
<td>69.8</td>
</tr>
<tr>
<td>Some days</td>
<td>74</td>
</tr>
<tr>
<td>Not at all</td>
<td>68.8</td>
</tr>
<tr>
<td>Total</td>
<td>69.3</td>
</tr>
</tbody>
</table>

| Source | Center for Applied Demography & Survey Research, University of Delaware |

Nearly 70% of all adult Delawareans have heard messages about the dangers of second-hand smoke during the last 12 months (see Figure 4-1 above). This finding applies almost uniformly across smokers and non-smokers alike. Perhaps this is part of the reason that smokers and non-smokers also agree that people should be protected from second-hand smoke (see Figure 3-4 earlier).
While the respondents reported hearing the messages about second-hand smoke from a variety of sources, almost two-thirds reported hearing the message on television (see Figure 4-2, below). The rest of the sources were reported almost uniformly by about a quarter of the sample. The pervasiveness of television explains this differential. It also suggests while the costs are higher, there probably is no other way to reach many Delawareans. Slightly more than 31% of those that heard the messages heard them from a source other than television while about 37% heard the information only on television.

**Figure 4-2**

*Source of Messages about Dangers of Second-hand Smoke*

<table>
<thead>
<tr>
<th>Source</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newspapers</td>
<td>26.2</td>
<td>73.8</td>
</tr>
<tr>
<td>Radio</td>
<td>26.5</td>
<td>73.5</td>
</tr>
<tr>
<td>TV</td>
<td>65.4</td>
<td>34.6</td>
</tr>
<tr>
<td>Billboards</td>
<td>25.4</td>
<td>74.6</td>
</tr>
<tr>
<td>Bus Posters</td>
<td>6.5</td>
<td>93.5</td>
</tr>
</tbody>
</table>

Source: Center for Applied Demography & Survey Research, University of Delaware

In the first section of this report, it was reported that more than 40% of adult Delawareans had heard of the Delaware Quitline. Further, “every day” smokers were the most familiar with the program. One additional question was asked about Quitline later in the survey. Respondents were asked specifically if they had seen or heard advertisements featuring local people who had used Delaware Quitline. The results are found in Figure 4-3, below.

Because of the narrowing of the question to just a portion of the media campaign, awareness is about half of the campaign overall with 21% of the respondents replying affirmatively. Once again, “every day” smokers were more likely to have seen that specific material.
Figure 4-3
Heard Messages from Local People about Delaware Quitline
by Frequency of Smoking

<table>
<thead>
<tr>
<th>Frequency of Smoking</th>
<th>Yes</th>
<th>No</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every day</td>
<td>26.2</td>
<td>72.8</td>
<td>1</td>
</tr>
<tr>
<td>Some days</td>
<td>20.3</td>
<td>77</td>
<td>2.7</td>
</tr>
<tr>
<td>Not at all</td>
<td>20.2</td>
<td>77.2</td>
<td>2.6</td>
</tr>
<tr>
<td>Total</td>
<td>21.3</td>
<td>76.4</td>
<td>2.3</td>
</tr>
</tbody>
</table>

Source: Center for Applied Demography & Survey Research, University of Delaware

Figure 4-4
Source of Messages about Delaware Quitline

<table>
<thead>
<tr>
<th>Source</th>
<th>Yes</th>
<th>No</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newspapers</td>
<td>11</td>
<td>89</td>
<td>95.8</td>
</tr>
<tr>
<td>Radio</td>
<td>11</td>
<td>75.4</td>
<td>51.9</td>
</tr>
<tr>
<td>TV</td>
<td>24.6</td>
<td>51.9</td>
<td>48.1</td>
</tr>
<tr>
<td>Billboards</td>
<td>24.9</td>
<td>75.1</td>
<td>24.9</td>
</tr>
<tr>
<td>Bus</td>
<td>2.9</td>
<td>97.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Brochures</td>
<td>0.0</td>
<td>100</td>
<td>4.2</td>
</tr>
</tbody>
</table>

Source: Center for Applied Demography & Survey Research, University of Delaware
Respondents, that had heard or seen the Quitline advertisements featuring local people, were asked where they had heard or seen the material. Television was the most likely source as is shown in Figure 4-4, above. In this case, the differences between television and other sources are not quite as much. Part of this undoubtedly reflects the way the media campaign was and is organized as well as the degree of exposure to each type of media.

**Figure 4-5**

*Have Seen TV Cartoon Character Talking about Quitting Smoking by Frequency of Smoking*

<table>
<thead>
<tr>
<th></th>
<th>Every day</th>
<th>Some days</th>
<th>Not at all</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don't Know</td>
<td>2.5</td>
<td>5.5</td>
<td>5.3</td>
<td>4.8</td>
</tr>
<tr>
<td>No</td>
<td>78.2</td>
<td>74</td>
<td>80.6</td>
<td>79.7</td>
</tr>
<tr>
<td>Yes</td>
<td>19.3</td>
<td>20.5</td>
<td>14.1</td>
<td>15.5</td>
</tr>
</tbody>
</table>

Source: Center for Applied Demography & Survey Research, University of Delaware

One aspect of the media campaign to reduce smoking was a television advertisement that featured a cartoon character talking about quitting smoking. Survey respondents were asked if they had seen the “spot”. The results are displayed in Figure 4-5, above.

Only 15% of the sample reported seeing the advertisement. Smokers were somewhat more likely to have seen it than non-smokers. Since this material was provided only through television about a third of the population that reported seeing only other types of media formats were unlikely to see it. In addition, the other advertisements (i.e. second-hand smoke) seen by respondents may have come from other non-Delaware sources while this advertisement was limited to Delaware media.
If an advertising campaign is going to have any impact and is going to be cost effective it is important to know how the targeted population gets its information. Respondents were asked how they got their health-related information. The results are shown in Figure 4-6 below.

**Figure 4-6**

*Sources of Information about Health and Health Services by Frequency of Smoking*

<table>
<thead>
<tr>
<th>Percent</th>
<th>Every Day</th>
<th>Some Days</th>
<th>Not at All</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>80%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Every Day</th>
<th>Some Days</th>
<th>Not at All</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>41.1</td>
<td>26</td>
<td>34.4</td>
<td>35</td>
</tr>
<tr>
<td>Internet</td>
<td>21.3</td>
<td>17.8</td>
<td>32.2</td>
<td>29.3</td>
</tr>
<tr>
<td>Magazines</td>
<td>9.4</td>
<td>5.5</td>
<td>9.7</td>
<td>9.4</td>
</tr>
<tr>
<td>Newspaper</td>
<td>8.4</td>
<td>15.1</td>
<td>7.7</td>
<td>8.3</td>
</tr>
<tr>
<td>Radio</td>
<td>1</td>
<td>6.8</td>
<td>1.4</td>
<td>1.7</td>
</tr>
<tr>
<td>TV</td>
<td>18.8</td>
<td>28.8</td>
<td>14.6</td>
<td>16.3</td>
</tr>
</tbody>
</table>

Source: Center for Applied Demography & Survey Research, University of Delaware

While there is some variation by smoking status, the patterns for the most part are similar. First of all it is important to note that 35% of the sample does not use the media as its primary source. While the “Other” category is undefined, hopefully healthcare professionals are the primary dispensers of information in this group. The “Internet” tended to be the dominant source, probably because it’s available when needed. Those choosing the Internet averaged 38.4 years of age compared with 45 years of age or higher for the other sources. More than anything else, this chart shows that less than half of adults depend upon the mass media for health information.

The final questions on the survey attempted to measure how people reacted to tobacco companies and their advertisements. Respondents were first asked how many items they owned with a tobacco company logo. Those results are found in Figure 4-7, below.
Figure 4-7
Items Owned with Tobacco Company Logo
by Frequency of Smoking

The results found in the figure are hardly surprising. First, the more you smoke, the more likely you are to own one or more of the items. If you tend to smoke every day, you are far more likely to own four or more of these items than are either of the two groups. Presumably, the larger the consumption of tobacco products is, then the greater the availability of these products.

Respondents were also asked if they had looked at tobacco advertisements in magazines. Apparently, frequency of smoking has little if anything to do with determining if a person looks at these advertisements. This is clearly shown in Figure 4-8, below.

Slightly more than a quarter of this sample reported looking at tobacco advertisements in magazines. This varied little among the categories of smoking frequency. The reaction to the advertisements themselves does vary by smoking status. This is shown very clearly in Figure 4-9, below. Respondents who smoked were more likely to have a positive view of the material and less likely to view the ads negatively than non-smokers. They were also more likely to take a neutral position. More than 30% on non-smokers had a negative view compared to about 10% of smokers. However, non-smokers were about as likely to respond positively as smokers.
Figure 4-8
Looked at Tobacco Ads in Magazines this Week
by Frequency of Smoking

<table>
<thead>
<tr>
<th>Frequency of Smoking</th>
<th>Every day</th>
<th>Some days</th>
<th>Not at all</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don't Know</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1.7</td>
</tr>
<tr>
<td>No</td>
<td>71.8</td>
<td>70.3</td>
<td>69.3</td>
<td>69.8</td>
</tr>
<tr>
<td>Yes</td>
<td>27.2</td>
<td>29.7</td>
<td>28.7</td>
<td>28.5</td>
</tr>
</tbody>
</table>

Source: Center for Applied Demography & Survey Research, University of Delaware

Figure 4-9
Reaction to Tobacco Ads in Magazines
by Frequency of Smoking

<table>
<thead>
<tr>
<th>Reaction to Ads</th>
<th>Very Negative</th>
<th>Somewhat Negative</th>
<th>Neutral</th>
<th>Somewhat Positive</th>
<th>Very Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every day</td>
<td>3.6</td>
<td>5.5</td>
<td>80</td>
<td>7.3</td>
<td>3.6</td>
</tr>
<tr>
<td>Some days</td>
<td>0</td>
<td>14.3</td>
<td>61.9</td>
<td>19</td>
<td>0</td>
</tr>
<tr>
<td>Not at all</td>
<td>18.8</td>
<td>19.7</td>
<td>53.6</td>
<td>7.5</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>14.9</td>
<td>16.8</td>
<td>58.7</td>
<td>8.3</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: Center for Applied Demography & Survey Research, University of Delaware
These data suggest that the media campaign is reaching the intended audience. Additional work that considers the expenditures for various types of media and the measured recognition of the target audience might prove useful in designing future efforts. The fact that the Internet is such a major vehicle in distributing health and health services information, while not a major surprise, certainly validates e-health efforts in the state.
Observations

This research had three primary objectives. First, the survey was to measure the prevalence of smoking within the state. Second, it was to gather information about exposure to second-hand smoke. Finally, it was to measure both the penetration of the media campaign that stresses the danger of second-hand smoke and attitudes toward tobacco company advertising. All three objectives were accomplished. The highlights from the survey are provided below:

- About half of all adult Delawareans start smoking, but only 18% smoke every day.
- Of those that are currently smoking, 38% have plans to quit smoking. Among “every day” smokers only 28% are planning to quit. Those most likely to be planning to quit smoking are the “some days” smokers (67%).
- More than half of “every day” smokers reported seeing advertisements about the Delaware Quitline. This indicator alone would suggest the program is meeting its primary objective.
- Almost 60% of “every day” smokers live in a house where one or more other people smoke. This contrasts with 20% for people who report being non-smokers.
- Almost 40% of children are at risk of exposure to second-hand smoke at home unless some or all smokers choose not to smoke at home. Smokers are more likely to have families than non-smokers.
- Approximately 18% of non-smokers are exposed to second-hand smoke at home.
- About a third of adult Delawareans are exposed to second-hand smoke at work. That exposure is far higher for smokers than for non-smokers.
- An additional 74,000 people are exposed to second-hand smoke at work that are not exposed at home.
- In general, smokers tend to live with people that smoke, work at places that permit smoking, and have twice as many friends that smoke.
- Nearly 80% of smokers and 90% of non-smokers feel that people should be protected from second-hand smoke.
- Almost half of non-smokers say their choice of restaurants is affected by smoking. This contrasts with 4% of “every day” smokers.
- Almost 39% of non-smokers suggest that they would use smoke-free restaurants more often while 36% of “every-day” smokers would use them less. If this in fact took place, net restaurant use should increase significantly.
- About 30% of non-smokers who frequent bars say they avoid them because of second-hand smoke. Only 5% of “every day” smokers say the same.
• Smoke-free bars could promote a smaller net increase in patronage assuming the behavior follows that reported for restaurants.

• Almost 70% of adult Delawareans reported hearing about the dangers of second-hand smoke. A smaller number (21%) reported hearing/seeing a specific advertisement about the Delaware Quitline.

• The principal source of this information was television.

• The source of health information mentioned most often was the Internet.

• Attitudes toward tobacco company advertisements varied depending largely on smoking status. However, smokers and non-smokers looked at the ads at about the same rate.
APPENDIX

TOBACCO ATTITUDES AND MEDIA SURVEY
2002

Questionnaire
Hello, I'm calling from the University of Delaware. We are conducting a survey of people's opinions on health issues in the state and the state's tobacco control program on behalf of the Delaware Division of Public Health. This survey lasts about ten minutes, and we really appreciate your cooperation in giving us your opinions.

Your answers will be completely confidential and no response will be identified with you personally. The interview may be monitored for quality assurance purposes, but all information obtained in this study will be confidential.

S3) In what county do you live?
   Kent
   New Castle
   Sussex

SECTION A

QA1) Have you smoked at least one hundred cigarettes in your entire life?
    Yes
    No
    DK
    Refused

QA2) Do you now smoke cigarettes every day, some days, or not at all?
    Every day
    Some days
    Not at all (Skip to A5)
    DK
    Refused

QA3) Think about the last THIRTY DAYS. How many of these days did you smoke at least one cigarette?
    Enter a value
    DK
    Refused

QA4) Are you planning to stop smoking or to stop using any other tobacco product within the next thirty days?
    Yes
    No
    DK
    Refused

QA5) In the past month, have you seen or heard advertising about the Delaware "Quitline" program with a toll-free number to help quit smoking?
    Yes
    No
    DK
    Refused
SECTION B
ENVIRONMENTAL TOBACCO SMOKE(ETS) EXPOSURE

QB1) NOT including yourself, how many members of your household currently smoke?
Enter a value
DK
Refused

QB2) During the past SEVEN DAYS, when you were at HOME, how many days were you exposed to other family members' or visitors' tobacco smoke?
Enter a value
DK
Refused

QB3) During the past SEVEN DAYS, when you were at WORK, how many days were you exposed to other people's tobacco smoke?
Enter a value
DK
Refused

QB4) How strongly do you agree or disagree with the following statement: "people should be protected from second-hand smoke". Do you ____
   Strongly disagree
   Somewhat disagree
   Somewhat agree
   Strongly agree
   DK
   Refused

QB5) How many of your four best friends are smokers?
Enter a value
DK
Refused

QB6) How often do you eat in restaurants, other than fast-food restaurants, for breakfast, lunch or dinner?
   Daily
   Once a week
   Several times a week
   Once a month
   Rarely (only on special occasions)
   Never (Skip to B9)
   DK (Skip to B9)
   Refused (Skip to B9)
QB7) Does the amount of second-hand smoke you're exposed to affect your choice of restaurants?
   Yes
   No
   DK
   Refused

QB8) If restaurants were to go completely smoke-free, how would it affect your choices?
   I'd be more likely to eat in restaurants
   I'd eat in restaurants about as often as I do now
   I'd be less likely to eat in restaurants
   DK/undecided
   Refused

QB9) In the past year, did you avoid going to a bar or night club because the amount of second-hand smoke?
   Yes
   No
   Don't go to bars
   DK
   Refused
SECTION C
DEMOGRAPHICS

QC1) INTERVIEWER ONLY: Please code gender
   Male
   Female

QC2) Please tell me your age.
   Enter a value
   Refused
   99+

QC3) Do you have children under 18 years of age, living in your household?
   Yes
   No (Skip to C5)
   DK (Skip to C5)
   Refused (Skip to C5)

QC4) How many children are there in this household under 18 that are---
   Less than 5 years old
   5 to 9 years old
   10 to 14 years old
   15 to 17 years old
   Refused

QC5) What is the highest grade or year of school you have completed?
   Eighth grade or less
   Some high school (grades 9-11)
   Grade 12 (High School grad or GED)
   Some technical school
   Technical school graduate
   Some college
   College graduate
   Postgraduate or professional degree
   Refused

QC6) Are you of Hispanic or Spanish origin?
   Yes
   No
   Refused
QC7) How would you describe your race?
   White
   Black or African American
   Asian/Pacific Islander
   American Indian or Native American
   Other
   Mixed Race
   Refused

QC7 OTHER) You said other Race. Please Specify.
   Enter response

QC8) Is your annual household income from all sources?
   Under $15,000
   $15,000 to $24,999
   $25,000 to $34,999
   $35,000 to $44,999
   $45,000 to $54,999
   $55,000 to $74,999
   $75,000 to $99,999
   $100,000 or more
   DK
   Refused

QC9) Do you have more than one residential telephone number in your household?
   Yes
   No
   DK
   Refused

QC9 Value) If yes to QC9__ How many residential (not business, computer or fax lines) telephone numbers do you have?
   Enter a value
SECTION D
MASS MEDIA AND TOBACCO

The next set of questions is about your exposure to media advertising related to tobacco. By media, we mean radio, television, newspapers and billboards.

QD1) In the past 12 months, have you seen or heard any messages about the dangers of second-hand smoke (sometimes called environmental tobacco smoke) in Delaware?
   Yes
   No
   DK
   Refused

QD2) If so, where did you see or hear these messages? (Check all that apply)
   Newspaper ads or special inserts
   Heard radio ads
   Seen TV ads
   Billboards
   Posters on sides of buses

QD3) In the past 12 months, have you seen or heard any advertisements featuring local people who used the Delaware Quitline (to quit smoking)?
   Yes
   No (Skip to D5)
   DK (Skip to D5)
   Refused (Skip to D5)

QD4) Where have you seen or heard it? On a ___ (check all that apply)
   Billboard
   Brochure
   Bus transit
   Newspaper ads or special inserts
   TV
   Radio
   Other

QD4 Other) If said OTHER to QD4: Where did you see or hear about it?
   Enter response

QD5) In the past year, have you seen the Television spot with the cartoon figure of a little man talking about quitting smoking?
   Yes
   No
   DK
   Refused
QD6) When you look for information about health or health services, what source do you use most often?
   Television
   Radio
   Newspaper
   Magazines
   Internet
   Other
   DK
   Refused

QD7) What radio station do you listen to most often?
   Enter response

QD8) How many items, do you own, that have a tobacco company brand name or logo on them?
   None
   One item
   Two or three items
   Four or more items
   DK
   Refused

QD9) In the past week, have you looked at tobacco advertisements in magazines?
   Yes
   No (Skip to closing statement)
   DK (Skip to closing statement)
   Refused (Skip to closing statement)

QD10 When you look at tobacco company advertisements, is your reaction.
   Very positive
   Somewhat positive
   No reaction/neutral
   Somewhat negative
   Very negative
   DK
   Refused

That's all the questions we have. Thank you for your time and effort.