Mellisa Williamson, 35, a Bullitt Avenue resident, worries about the effect on her unborn child from the sound of jackhammers.
Tobacco Use as an Infectious Disease
You get it from tobacco companies.
Tobacco Use as an Infectious Disease

Is tobacco use a disease transmitted by exposure?

• Increased access to tobacco products for experimentation
• Modeling of tobacco use behaviors
• Normalization of tobacco use
So What?

Surgeon General’s report 2006: “no known safe level” of exposure

Over 250 toxic constituents of tobacco smoke
Secondhand smoke is toxic: 4000 chemicals

> 50 Cancer-causing chemicals
- Formaldehyde
- Benzene
- Polonium
- Vinyl chloride

Toxic metals:
- Chromium
- Arsenic
- Lead
- Cadmium

Poison Gases:
- Carbon monoxide
- Hydrogen cyanide
- Butane
- Ammonia
First Hand Smoke

The smoke inhaled into the lungs while smoking

Recognized as harmful in 1950
Second Hand Smoke

The smoke exhaled from smoking, or from the burning tip of a cigarette

First mentioned in SG report 1972, recognized as harmful to children in 1974, first full report in 1986
Third Hand Smoke

Third-hand smoke is the left-over contamination in a room/car/clothing that persists after the cigarette is extinguished

• The condensate on the glass from a smoking chamber was used in one of the first studies linking smoking and cancer
• Homes and cars in which people have smoked may smell of cigarettes for long periods
About 443,000 U.S. deaths attributable each year to cigarette smoking:

- Lung Cancer: 128,900 (29%)
- Ischemic Heart Disease: 126,000 (28%)
- Chronic Obstructive Pulmonary Disease: 92,900 (21%)
- Other Diagnoses: 44,000 (10%)
- Stroke: 15,900 (4%)
- Other Cancers: 35,300 (8%)
Figure 1A  The health consequences causally linked to smoking

Cancers

- Oropharynx
- Larynx
- Esophagus
- Trachea, bronchus, and lung
- Acute myeloid leukemia
- Stomach
- Liver
- Pancreas
- Kidney and ureter
- Cervix
- Bladder
- Colorectal

Chronic Diseases

- Stroke
- Blindness, cataracts, age-related macular degeneration
- Congenital defects—maternal smoking: orofacial clefts
- Periodontitis
- Aortic aneurysm, early abdominal aortic atherosclerosis in young adults
- Coronary heart disease
- Pneumonia
- Atherosclerotic peripheral vascular disease
- Chronic obstructive pulmonary disease, tuberculosis, asthma, and other respiratory effects
- Diabetes
  - Reproductive effects in women (including reduced fertility)
  - Hip fractures
  - Ectopic pregnancy
  - Male sexual function—erectile dysfunction
  - Rheumatoid arthritis
  - Immune function
  - Overall diminished health


Note: The condition in red is a new disease that has been causally linked to smoking in this report.
Figure 1B  The health consequences causally linked to exposure to secondhand smoke

<table>
<thead>
<tr>
<th>Children</th>
<th>Adults</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle ear disease</td>
<td>Stroke</td>
</tr>
<tr>
<td>Respiratory symptoms, impaired lung function</td>
<td>Nasal irritation</td>
</tr>
<tr>
<td>Lower respiratory illness</td>
<td>Lung cancer</td>
</tr>
<tr>
<td>Sudden infant death syndrome</td>
<td>Coronary heart disease</td>
</tr>
</tbody>
</table>

- Reproductive effects in women: low birth weight


*Note:* The condition in red is a new disease that has been causally linked to smoking in this report.
Table 1  Premature deaths caused by smoking and exposure to secondhand smoke, 1965–2014

<table>
<thead>
<tr>
<th>Cause of death</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoking-related cancers</td>
<td>6,587,000</td>
</tr>
<tr>
<td>Cardiovascular and metabolic diseases</td>
<td>7,787,000</td>
</tr>
<tr>
<td>Pulmonary diseases</td>
<td>3,804,000</td>
</tr>
<tr>
<td>Conditions related to pregnancy and birth</td>
<td>108,000</td>
</tr>
<tr>
<td>Residential fires</td>
<td>86,000</td>
</tr>
<tr>
<td>Lung cancers caused by exposure to secondhand smoke</td>
<td>263,000</td>
</tr>
<tr>
<td>Coronary heart disease caused by exposure to secondhand smoke</td>
<td>2,194,000</td>
</tr>
<tr>
<td>Total</td>
<td>20,830,000</td>
</tr>
</tbody>
</table>

*Source:* Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, unpublished data.
Tobacco and Children

- 18% of U.S. adults smoke.
- Over 30% of U.S. children live with one or more smokers.
Children & Tobacco Smoke

- Children have little or no control over their exposure.
- Children do not generally understand the health risks posed by SHS.
- Children are regularly exposed in a variety of contexts: home, daycare, family car
SHS Exposure Causes Death and Disease in Children

- ~6,200 children die each year in the U.S. as a result of SHS exposure
- ~5.4 million childhood illnesses are attributed to SHS exposure
- Annual costs attributable to SHS exposure: ~ $4.6 billion
Population Attributable Risks

Annually:

- 200,000 childhood asthma episodes
- 150,000-300,000 cases of lower respiratory illness
- 790,000 middle ear infections
- 25,000-72,000 low birth weight or preterm infants
- 430 cases of SIDS
Tobacco Smoke and Children: Short Term Health Effects

- Respiratory tract infections such as pneumonia & bronchitis
- Decreased pulmonary function
- Tooth decay
- House fires
Good news
Adult Per Capita Cigarette Consumption, U.S.
1900 - 2012

Use is Decreasing

- **Current Rates of Tobacco Use**
  - Highest rate of tobacco use was in 1966
  - In 1964, a report was released on the dangers of smoking on health
  - 17.8% of adults are currently smokers (2013)
    - In 1965, 42% of people were smokers
National High School Smoking Trends
1991 - 2011*

*Data are from the Youth Risk Behavior Surveillance Survey (1991-2011)
current cigarette smoking
MS PUBLIC MIDDLE SCHOOLS

In 2013, 4,595 Mississippi public middle school students were current smokers.

The prevalence of current smoking has decreased by 80% since 1998, leading to 18,492 fewer young smokers.

In the past year, the prevalence of current smoking has not changed significantly.

Comprehensive and statewide tobacco education, prevention, and cessation programs are implemented by the Office of Tobacco Control, Mississippi State Department of Health.

The Partnership for a Healthy Mississippi implements its tobacco control programs.

State funding for The Partnership for a Healthy Mississippi is directed away from tobacco prevention.
In 2013, 18,147 Mississippi public high school students were current smokers.

The prevalence of current smoking has decreased by 56% since 1998, leading to 23,195 fewer young smokers.

In the past year, the prevalence of current smoking has not changed significantly.

The Partnership for a Healthy Mississippi implements its tobacco control programs.

State funding for The Partnership for a Healthy Mississippi is directed away from tobacco prevention.

Comprehensive and statewide tobacco education, prevention, and cessation programs are implemented by the Office of Tobacco Control, Mississippi State Department of Health.
Between 1965 and 1999 there was a 62% reduction of smoking rates in families with the highest income level, compared to 9% reduction among low income level families.
Why the Decrease?

- Education
- Taxation
- Policy and Regulation
How much additional tax on a pack of cigarettes would you be willing to support?

More than 2 dollars per pack = 25.6%
Two dollars per pack = 12.0%
One dollar per pack = 10.2%
50 to 99 cents a pack = 4.8%
Less than 50 cents a pack = 4.4%
No tax increase = 42.9%
29.44% of Mississippian are protected
2013 Mississippi Social Climate Survey

Would you favor or oppose a law in MS that would prohibit smoking in most public places, including workplaces, public buildings, offices, restaurants, and bars?

Favor = 82.1%
Oppose = 14.0%
Neither favor nor oppose = 3.9%
Mississippi ranks 35th in protection

Prior to 2006, less than 0.01% of the Mississippi population was protected from tobacco smoke by 100% smokefree air laws in indoor public places. Mississippi currently ranks 35th in percent of the population protected from tobacco smoke in indoor public places.

**Source**
American Nonsmokers’ Rights Foundation,
July, 2014

Please note that the criteria ANR uses is more strict than that of MTD. Therefore, our estimate is higher.
Age of Sale for Tobacco

- Nicotine addiction in adolescents is a multi-year process
- A policy that made obtaining cigarettes more difficult could interrupt the progression to daily smoking
- A person who is not daily smoking at age 21 is not likely to progress to daily smoking
  - 90% of those who buy for kids are under the age of 21

Source: Rob Crane, OSU
Mississippi ranks 7th among the 50 states and Washington D.C. in the prevalence of current smoking among adults. State rankings, however, should be interpreted with caution. Rank differences do not necessarily reflect meaningful differences between states.

Source:
2012 Behavior Risk Factor Surveillance System, Centers for Disease Control and Prevention
Electronic Cigarettes

• “There is currently an enormous gap between what people hoped would be the public health potential of these products and the reality of what has gone on in the marketplace.”

• Matthew Myers, president of the Campaign for Tobacco-Free Kids.

• Although less harmful than combustible cigarettes, these products are not a safe alternative to combustible tobacco. On a continuum of harm, electronic cigarettes are simply less harmful than combustible cigarettes. This does not imply that they are safe.
Electronic Cigarettes - FDA

- Register with FDA and report product and ingredient listings (but it is not clear if this applies to the FDA or to the consumer)
- Only market new products after FDA review
- Not distribute free samples
- Include a health warning label
- Restrict sale of electronic cigarettes to 18+
### 2013 Mississippi Social Climate Survey

**Electronic Cigarettes**

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS Ever Use</td>
<td>9.5%</td>
<td>12.1%</td>
</tr>
<tr>
<td>US Ever Use</td>
<td>10.6%</td>
<td>13.0%</td>
</tr>
<tr>
<td>MS Current Use</td>
<td>4.1%</td>
<td>5.7%</td>
</tr>
<tr>
<td>US Current Use</td>
<td>2.6%</td>
<td>6.8%</td>
</tr>
</tbody>
</table>
Electronic Cigarettes
Ever Use

High School Students
• Mississippi
  • 2011: 5.9%; 2012: 8.4%; 2013: 9.7%
• United States
  • 2011: 4.7%; 2012: 10.0%; 2013: n/a

Middle School Students
• Mississippi
  • 2011: 2.0%; 2012: 3.5%; 2013: 6.2%
• United States
  • 2011: 1.4%; 2012: 2.7%; 2013: n/a
For More Information

• Visit mstobaccodata.org