The Youth Tobacco Evaluation Project (YTEP)

PI: Diane B. Wilson, Ed.
February, 2006

Methods
Methods

• Purpose
  – Design and implement a comprehensive evaluation of state-wide tobacco prevention programming
  • 62 agencies implemented 35 prevention programs
  • Parental notification (passive consent) of 6th-12th graders

VTSF Compendium Criteria

• Program’s targeted audience is youth K-12
• Tobacco Prevention or Control component
• Focus on social skills, empowerment
• Recognized by
  – at least one national agency (e.g., SAMHSA, CDC)
  – or by one of the following state agencies: State Tobacco Control agencies, State Dept of Education, or State Health Services.
• Program publicly available, cost-effective
• Programs are at least 5 sessions with F-U activity
• Has an evaluation component, proven effective
VTSF Compendium Programs (N = 35)

All Stars  Families In Action  Life Skills Training  Project Charlie
Strengthening Families  Al's Pals  Get Real About Tobacco  Living Free of
Tobacco (LIFT)  Project Toward No Tobacco Use  Too Good For Drugs
Creating Lasting Families  Helping Teens Stop Using Tobacco (TAP)
Not On Tobacco  Project Toward No Drug Use  Dare To Be You
Here's Looking At You  Personal/Social Skills Lessons  Science, Tobacco &
You  Ending Nicotine Dependence  Intervening With Teen Tobacco
Users (TEG)  Positive Action Skills For Adolescence  Families &
Schools Together  Know Your Body  Project Alert  Skills For Growing
Anti-Tobacco Media Blitz  NICoteen  Tar Wars  Cool School Skills For
Action Teens Tackle Tobacco  Keep A Clear Mind  Smokeless School
Days  Youth Media Network

Measurement

• Anonymous survey (~100 items) mailed to YTEP
  – Linking scheme
• Baseline, post-intervention, F-U, long-term F-U (2002-2004)
• CDC’s Youth Risk Behavior Surveillance Survey and the Goals for Health Project (Meyer et al., 2000)
  – Characteristics of participants
  – Tobacco knowledge and attitudes
  – Tobacco use and exposure
  – Peer tobacco use
  – Access to tobacco products
  – Exposure to tobacco prevention messages
  – Other health habits
### Overview of the Evaluation

#### Process Tools

| Instructor Survey | Brief Survey (4<sup>th</sup> & 5<sup>th</sup> grade) | Parent & Family Participant Survey |

#### Outcome Tools (6<sup>th</sup>-12<sup>th</sup> grades)

| Baseline Survey | Follow-up Survey |

*While we refer to grade groups we mean comparable age groups*

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### Overall YTEP Sample

- Over 25,000 baseline surveys
  - 19,360 MS and 5,780 HS
- 83% Post-tx, 13% F-U, 4% Long-term F-U
- 50/50% girls and boys
- At least one cigarette in past month
  - MS 7.5%
  - HS 27.5%
## Findings

### Overall Outcomes from 13 Programs (11/04 Report)

<table>
<thead>
<tr>
<th></th>
<th>MS+</th>
<th>MS-</th>
<th>HS+</th>
<th>HS-</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>8</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Benefits</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Self-Efficacy</td>
<td></td>
<td></td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Intentions</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Use</td>
<td>3</td>
<td>1</td>
<td></td>
<td>(NOT)</td>
</tr>
</tbody>
</table>

**MS:** Best: Anti-Tobacco Media Blitz; Worst: Get Real About Tobacco  
**HS:** Best: NOT, Skills for Adol, Champs; Worst: Get Real, Skills for Service
Differences in food intake and exercise by smoking status (Wilson et al*)

- MS sample: Male 49%, Female 51%
- HS sample: Male 47%, Female 53%
- In MS female, HS female and total HS sample, smokers were significantly less likely to eat 1 serving/day of vegetables than non-smokers.
- Both MS female and total MS sample smokers were significantly less likely than non-smokers to exercise ≥3x/week.
- Smoking is associated with poorer dietary and exercise habits. This is especially true for girls.

*Preventive Medicine, 2005
Gender comparisons of food consumption and exercise frequency in High School smokers

Adolescent attitudes toward smoking and weight loss (Bean et al.)

- 750 students from rural high schools
- 54% female, 46% male
- Both boys and girls endorsed the attitude that smoking helps with weight control
  - More girls think people smoke for weight control
  - More boys think they will gain if they don’t smoke
- In full logistic regression, attitudes similarly predict smoking status across gender
- Current smokers report lower endorsement of weight control but higher endorsement of personal weight gain
- Smoking appears to be a weight control strategy associated with initiation and maintenance
Gender differences in attitudes that people smoke for weight control by smoking status (3 items).

Gender differences in item, “If I stay tobacco-free, I will gain weight” by smoking status.
Smoking and Closeness to Parents  
(Wilson et al.)

- MS (n=17, 468) and HS (n=5,457) students
- 4 measures of closeness to parents  
  - Time, dinner, communication, closeness
- Students who were less close to parents had significantly increased odds of smoking.
- Number of parents smoking (0, 1, 2) incrementally moderated the protective effect of closeness to parents in predicting youth smoking.
- Greater emphasis on both addressing parent smoking and strengthening family relationships may be necessary to further reduce youth smoking in the US.

<table>
<thead>
<tr>
<th></th>
<th>Dinner</th>
<th>Time</th>
<th>Communication</th>
<th>Closeness</th>
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<tbody>
<tr>
<td></td>
<td>MS</td>
<td>MS</td>
<td>MS</td>
<td>MS</td>
</tr>
<tr>
<td>Main Effect</td>
<td>.86</td>
<td>.60</td>
<td></td>
<td>.69</td>
</tr>
<tr>
<td>Moderated Effect</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 Parents smoke</td>
<td>.79</td>
<td>.55</td>
<td>.45</td>
<td>.71</td>
</tr>
<tr>
<td>1 Parent smoke</td>
<td>.84</td>
<td>.63</td>
<td>.55</td>
<td>.82</td>
</tr>
<tr>
<td>2 Parents smoke</td>
<td>.90</td>
<td>.73</td>
<td>.67</td>
<td>.95</td>
</tr>
</tbody>
</table>
ORs and CIs assessing the association between youth smoking and communication with parents

Note: Adjusted analysis; non-smokers referent category. Covariates include smoking siblings, family structure, gender, ethnicity, and parental smoking. When the interaction term communication with parents x parent smoking was significant, odds ratios were presented separately for 0, 1, or 2 parents smoking. Odds ratios below 1.0 indicate decreased odds of youth smoking by unit of closeness to parents.

Perceived access to cigarettes among middle school youth (Obando, Speizer, et al.)

- 5451 Boys (49%), 5568 Girls (51%)
- Males significantly more likely to perceive cigarettes easy to get at school and store (ps < .001); females think easier at home (p < .01)
- Significance for males only (logistic regression)
  - Home: males who think their parents have positive attitudes toward smoking perceive cigarettes easier to get at home; males in higher grades perceive access easier
  - School: the more important it is to try hard at school, the lower perceived access
  - Store: lower maternal education associated with access; less access if living with dad, then mom, then both
- Less influence over girls’ access?
## Rural/urban differences in MS tobacco use (Jones et al.)

<table>
<thead>
<tr>
<th></th>
<th>Rural Growers (n=1919)</th>
<th>Rural Non-Growers (n=6459)</th>
<th>Urban Non-Growers (n=1806)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CIGARETTE USE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ever smoke (%)</td>
<td>20.4</td>
<td>22.9</td>
<td>19.5</td>
<td>0.002</td>
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<tr>
<td>Current smoker (%)</td>
<td>10.4</td>
<td>12.1</td>
<td>10.3</td>
<td>0.018</td>
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<tr>
<td>Smoke pack per day (%)</td>
<td>1.3</td>
<td>1.9</td>
<td>1.3</td>
<td>0.018</td>
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<tr>
<td><strong>CHEWING TOBACCO/SNUFF USE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ever chew/snuff (%)</td>
<td>15.6</td>
<td>12.7</td>
<td>7.9</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Tried chew/snuff before age 9 (%)</td>
<td>4.2</td>
<td>3.4</td>
<td>2.2</td>
<td>0.001</td>
</tr>
<tr>
<td><strong>OVERALL TOBACCO USE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoke OR chew tobacco/snuff (%)</td>
<td>28.1</td>
<td>28.5</td>
<td>23.4</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Smoke AND chew tobacco/snuff (%)</td>
<td>8.8</td>
<td>8.1</td>
<td>4.7</td>
<td>0.0005</td>
</tr>
</tbody>
</table>

*Adjusted: gender, race, grade level

### Conclusions
Summary/Conclusions

- Smoking appears to be a weight control strategy associated with initiation and maintenance
  - Smoking is associated with poorer dietary and exercise habits (especially among girls)
  - Attend to diet and weight concerns/management in interventions
- Number of parents smoking moderates protective effects of closeness
- Locale is an important variable in smoking and chewing
- We know more about boys’ access and potentials for modification
- Limitations: No control group, program evaluation, self-report, survey fatigue, varied samples
- New VTSF proposal under review to intervene on smoking and diet in rural MSs with parent component (LIFT+)

Other Papers in Progress

Kim, H., Uguy, S., McClish, D., & Fries, E. Predictors of smokeless tobacco use in adolescents.


Mitchell, K., Bean, M., Speizer, I., Smith, B., Wilson, D. B., & Fries, E. Gender and ethnic differences in the relationships among stress, social support and smoking.
The YTEP Team

- Panumas Assavarakpreecha, MS
- Melanie Bean, MS
- Megan Connolly, MPH
- Earl Dowdy, PhD
- Elizabeth Fries, PhD
- Sue Ellen Hargadon, MA, EdS
- Carolyn Heckman, PhD
- Resa Jones, MPH, PhD
- Donna McClish, PhD
- Karen Mitchell
- Patricia Obando, PhD
- Joyce Phillips
- Jason Piccone, MA
- Brian Smith, PhD
- Ilene Speizer, PhD
- Samy Uguy, PhD
- Diane B. Wilson, EdD, MS (PI)