INTEGRATING YOUTH TOBACCO SURVEYS WITH STATE-LEVEL YOUTH RISK BEHAVIOR SURVEYS

Thursday, June 27, 2019

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How to Combine Youth Tobacco Surveys with State-Level Youth Risk Behavior Surveys

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School-based Surveillance Branch
Division of Adolescent and School Health

Objectives

- Describe the Youth Risk Behavior Surveillance System
- Explain how to coordinate or combine the Youth Tobacco Survey with a state-level Youth Risk Behavior Survey
- Describe the pros and cons of each method
Youth Risk Behavior Surveillance System

Purposes of the YRBSS

• Focus the nation on behaviors among youth causing the most important health problems
• Assess how risk behaviors change over time
• Provide comparable data
Behaviors That Contribute to the Leading Causes of Morbidity and Mortality

1. Sexual behaviors
2. Alcohol and other drug use
3. Behaviors that contribute to unintentional injuries and violence
4. Tobacco use
5. Unhealthy dietary behaviors
6. Inadequate physical activity

*Plus: obesity and asthma*

Current YRBSS Components

- National school-based Youth Risk Behavior Survey (YRBS)
- State, territorial, tribal, and local YRBS
State and Local YRBS Participation From 1991 to 2017

<table>
<thead>
<tr>
<th></th>
<th>1991</th>
<th>1993</th>
<th>1995</th>
<th>1997</th>
<th>1999</th>
<th>2001</th>
<th>2003</th>
<th>2005</th>
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<th>2009</th>
<th>2011</th>
<th>2013</th>
<th>2015</th>
<th>2017</th>
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<tbody>
<tr>
<td># of states</td>
<td>26</td>
<td>40</td>
<td>39</td>
<td>38</td>
<td>41</td>
<td>37</td>
<td>43</td>
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<td>47</td>
<td>47</td>
<td>47</td>
<td>47</td>
<td>46</td>
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<tr>
<td># of cities</td>
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<td>17</td>
<td>17</td>
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<td>19</td>
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<td>22</td>
<td>22</td>
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</tr>
<tr>
<td># of territories</td>
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<td>2</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>7</td>
<td>5</td>
<td>4</td>
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<td>4</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td># of tribal governments</td>
<td>--</td>
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<td>--</td>
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<td>--</td>
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<td>2</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Total # of sites</td>
<td>38</td>
<td>56</td>
<td>61</td>
<td>60</td>
<td>62</td>
<td>63</td>
<td>70</td>
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<td>71</td>
<td>76</td>
<td>75</td>
<td>76</td>
<td>73</td>
<td>73</td>
</tr>
<tr>
<td>% of sites with weighted data</td>
<td>45%</td>
<td>59%</td>
<td>61%</td>
<td>72%</td>
<td>61%</td>
<td>60%</td>
<td>80%</td>
<td>90%</td>
<td>93%</td>
<td>87%</td>
<td>93%</td>
<td>92%</td>
<td>82%</td>
<td>90%</td>
</tr>
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</table>

YRBS Participation 2017

- Weighted state results
- Unweighted state results
- Did not participate
- Weighted large urban school districts, territories, and tribal government results

Legend:
- Guam
- Northern Mariana Islands
- Puerto Rico
Characteristics of the National, State, and Local School-Based YRBS

- 9th – 12th grade students
- Probability samples of schools and students
- Anonymous
- Self-administered, computer-scannable questionnaire or answer sheet
- Completed in one class period (45 minutes)
- Conducted biennially usually during the spring

Questionnaire Modification for YRBS

- Standard high school questionnaire
  - 89 questions
  - Starting point for all state and local questionnaires as well as national questionnaire
- Sites can delete, change, and add questions
  - Must use two thirds of standard questions without changes (60 q)
  - Cannot exceed 99 questions total
Coordinating and Combining the YTS with a State-Level Youth Risk Behavior Survey

Methods

1. Coordinated sample draw for conducting both a YTS and a YRBS
   A. Double-school sample
   B. Double-class sample

2. Combine YTS and YRBS into a single questionnaire
Coordinated Sample Draw: Double-School Sample

- For states that want to conduct both a YTS and a YRBS
- States using this approach:
  - Indiana, Mississippi, Nebraska, New Jersey, Wisconsin
- CDC (through a contract with Westat) selects separate samples for YTS and YRBS so that schools are only asked to participate in one of the two surveys
- Surveys can be conducted during the same semester or during different semesters

Pros and Cons: Double-School Sample

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can ask larger numbers of both YTS and YRBS questions</td>
<td>More sampled schools are required to conduct both surveys</td>
</tr>
<tr>
<td>Can conduct surveys in different semesters</td>
<td>Must process own YTS data</td>
</tr>
<tr>
<td>Does not require large numbers of classes in each school</td>
<td>Cannot examine associations between YTS questions and YRBS questions</td>
</tr>
</tbody>
</table>
Coordinated Sample Draw: Double-Class Sample

- For states that want to conduct both a YTS and a YRBS
- States using this approach:
  - Hawaii (high and middle school), Louisiana, North Dakota, South Carolina
- CDC (through a contract with Westat) selects a single sample of schools and provides two sets of random numbers to use when sampling classes within each selected school so that selected classes are only asked to participate in one of the two surveys
- Surveys must be conducted during the same semester

Pros and Cons: Double-Class Sample

**Pros**
- Can ask larger numbers of both YTS and YRBS questions
- Fewer schools to approach and clear

**Cons**
- Greater burden on selected schools
- Must process own YTS data
- Cannot examine associations between YTS questions and YRBS questions
Combining YTS and YRBS into a Single Questionnaire

- For states that do not need >30 YTS questions
- States using this approach:
  - Colorado, Georgia, Maryland, Missouri, Ohio
- State modifies the standard YRBS questionnaire to include desired YTS questions
- CDC (through a contract with Westat) selects a single sample of schools and processes all results

Questionnaire Modification for YRBS

- Standard high school questionnaire
  - 89 questions
  - Starting point for all state and local questionnaires as well as national questionnaire
- Sites can delete, change, and add questions
  - Must use two thirds of standard questions without changes (60 q)
  - Cannot exceed 99 questions total
## Pros and Cons: Combining YTS and YRBS into a Single Questionnaire

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Fewer schools to approach and clear</td>
<td>• Less room on questionnaire for YTS questions and other questions of interest</td>
</tr>
<tr>
<td>• Less overall burden on schools</td>
<td></td>
</tr>
<tr>
<td>• CDC will process all data and provide a report</td>
<td></td>
</tr>
<tr>
<td>• Can examine associations between YTS questions and YRBS questions</td>
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</table>

## Questions?
Combining the YRBS and YTS: Maryland's Approach to Successful Survey Integration

Christine Boyd, MPH

June 27, 2019
Mission and Vision

Mission
• To protect, promote, and improve the health and well-being of all Marylanders and their families through provision of public health leadership and through community-based public health efforts in partnership with local health departments, providers, community-based organizations, and public and private sector agencies, giving special attention to at-risk and vulnerable populations.

Vision
• A future in which all Marylanders and their families enjoy optimal health and well-being.

Learning Objectives

• Describe Maryland’s YRBS/YTS survey.
• Explain how Maryland implements its YRBS/YTS survey.
• Review key lessons learned.
Maryland’s Tobacco Control Program

• Master Settlement Agreement (MSA)
• Cigarette Restitution Fund (CRF)
• Maryland’s Tobacco Control Program
  • Created by statute
  • Utilizes CDC Best Practices for Comprehensive Tobacco Control Programs
  • Data driven
    • Youth and adult tobacco surveys support program activities
    • Statute requires specific tobacco use survey questions

Youth Survey History in Maryland

• 2000 – YTS begins
  • Conducted biennially in even years
  • Data collected at county-level
• 2005 – YRBS begins
  • Conducted biennially in odd years
  • Data collected at state-level
• 2013 – YRBS/YTS combined for first time
• 2014, 2016, 2018 – YRBS/YTS administered
Why combine?

- Reduce school survey burden
- Reduce costs and resources
- Obtain state and county-level data for both surveys
- Obtain robust data set and new data comparisons
  - Combined YRBS/YTS → compatible data
  - Look at tobacco use behavior with other priority risk behaviors
- Obtain data for required reports
- Determine local health department funding

New Data Comparisons

Beliefs (YTS) by Sexual Orientation (YRBS)

- Smoking Helps Youth to ‘Fit In’ or ‘Look Cool’
  - Lesbian/Gay: 39.3%
  - Bisexual: 23.3%
  - Heterosexual (straight): 20.7%
- Smokers Have More Friends than Nonsmokers
  - Lesbian/Gay: 39.3%
  - Bisexual: 37.0%
  - Heterosexual (straight): 52.7%

2016 Maryland YRBS/YTS, unpublished data retrieved 21 June 2019
New Data Comparisons, cont.

Secondhand Smoke (YTS) and Asthma (YRBS)

<table>
<thead>
<tr>
<th>Lives With Someone Who Smokes</th>
<th>30.80%</th>
</tr>
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<tbody>
<tr>
<td>Does Not Live With Someone Who Smokes</td>
<td>24.30%</td>
</tr>
</tbody>
</table>

Ever Told They Had Asthma  Never Told They Have Asthma

2016 Maryland YRBS/YTS, unpublished data retrieved 21 June 2019

YRBS/YTS Overview

- Separate instruments for HS/MS
- 2/3 YRBS questions
- 1/3 YTS and stakeholder requested questions
- Paper and pencil administration
- Conducted during one 45-minute class
- Conducted in fall semester of even years
YRBS/YTS Question Selection

• Number of Questions
  • 99 HS questions (2018)
  • 86 MS questions (2018)

• Key Considerations
  • 2/3 YRBS questions required for CDC support
  • Statutorily required questions
  • Continuity of questions for trend data

• Approval Process
  • Multiple agencies, CDC

• Question Order

Key Implementation Steps

1. Partner engagement and planning
2. Survey question selection
3. IRB approval
4. Memo announcing survey
5. Training and TA (ongoing)
6. School and class sampling
7. Confirm final enrollment lists
8. Schedule survey administration
9. Opt outs distributed/collected
Roles and Responsibilities

- Maryland Depts of Health and Education
- Survey Contractor
- County Coordinator
- School Coordinator
- Field Data Collector

YRBS/YTS Size and Scope

- 2018 Survey Administration \textit{Sept 26th $\rightarrow$ Dec 14th}

- 368 schools selected
- 182 eligible middle schools
- 184 eligible high schools
- 2 ineligible schools
- 69,294 students completed surveys
- 27,641 middle school students
- 41,653 high school students
- Over 80% overall response rate
- 84.8% middle school response rate
- 80.9% high school response rate
YRBS/YTS Participation Rates

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<tr>
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</thead>
<tbody>
<tr>
<td>YRBS HS &amp; MS</td>
<td>86.5%</td>
<td>86.0%</td>
<td>85.6%</td>
<td>85.9%</td>
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<td>YRBS HS</td>
<td>N/A</td>
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<td>63%</td>
<td>78%</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>YRBS/YTS HS</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>82%</td>
<td>82%</td>
<td>77%</td>
<td></td>
</tr>
<tr>
<td>YRBS/YTS MS</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>84%</td>
<td>83%</td>
<td>75%</td>
<td></td>
</tr>
</tbody>
</table>

Lessons Learned

- Strong collaborative partnerships
- Ongoing communication
- Training and TA
- Survey validation
  - In 2018 – 75% of schools reached with validation calls
  - Opportunity to thank schools for participating
Lessons Learned, cont.

• Start early
  • Pre-planning can start one-year ahead
  • Review enrollment lists as early as possible
  • Schedule schools as early as possible in survey window

• Some YTS questions can’t be included
  • Maryland doesn’t capture:
    • Attitudes about tobacco use
    • Tobacco advertising and exposure questions

Resources

• Maryland YRBS/YTS Survey Questionnaires
  • [https://phpa.health.maryland.gov/ohpetup/Pages/YTRBS.aspx](https://phpa.health.maryland.gov/ohpetup/Pages/YTRBS.aspx)

• Maryland YRBS/YTS Survey Reports
  [https://phpa.health.maryland.gov/ccdpc/Reports/Pages/YRBS-Main.aspx](https://phpa.health.maryland.gov/ccdpc/Reports/Pages/YRBS-Main.aspx)

• Maryland state-level reports with YRBS/YTS data
  • [https://phpa.health.maryland.gov/ohpetup/Pages/tob_reports.aspx](https://phpa.health.maryland.gov/ohpetup/Pages/tob_reports.aspx)
Questions

• Contact
  • Christine Boyd, MPH, Health Policy Analyst
    • christine.boyd@maryland.gov
  • Nikaldi Jallah, MPH, CTPC Epidemiologist
    • nikardi.jallah@maryland.gov

QUESTIONS?

Evaluation: PLEASE COMPLETE A BRIEF SURVEY BEFORE YOU LEAVE!

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