The Maine Integrated Youth Health Survey (MIYHS)
Looking at the 2017 Data, and How to use it

Reid Plimpton
MIYHS Project Coordinator
MCDC/ MCDPH
Sheila Nelson MPH, MSW
Program Manager, Adolescent Health, & Injury Prevention
MCDC

MIYHS Background

• Comprehensive youth health survey
• First year of the project was 2009, and the project is administered in February of odd years
• The MIYHS is a result of combining multiple national survey instruments together
  • To minimize educational interruption
  • And maximize data availability
• Collaboration between the Maine Department of Health and Human Services and the Maine Department of Education.

Explanation of Survey Modules and Sample Design

<table>
<thead>
<tr>
<th>Module</th>
<th>Survey Design</th>
<th>Participants</th>
<th>Survey Question Method</th>
<th>Data Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kindergarten &amp; Third Grade</td>
<td>Sample (w/ replacements)</td>
<td>Survey Questions: Parents Oral Health Screening: Students</td>
<td>Paper or Phone Call</td>
<td>State Level Data</td>
</tr>
<tr>
<td>5th &amp; 6th Grade</td>
<td>Sample (volunteer schools)</td>
<td>Students</td>
<td>Paper during normal class period</td>
<td>-State Level Data -Public Health District Data -School Level Data* -School District Level Data*</td>
</tr>
<tr>
<td>Middle School (7th &amp; 8th Grade)</td>
<td>Census</td>
<td>Students</td>
<td>-State Level Data -Public Health District Data -County Level Data -School Level Data* -School District Level Data*</td>
<td></td>
</tr>
<tr>
<td>High School (9th-12th Grade)</td>
<td>Census</td>
<td></td>
<td>-State Level Data -Public Health District Data -County Level Data -School Level Data* -School District Level Data*</td>
<td></td>
</tr>
</tbody>
</table>

5th/6th and K/3 Surveys - The Basics

5th and 6th Grade Survey

• Student survey with age appropriate questions
• Height/Weight assessment for 5th grade only
• About 129 Schools sampled for 2017
  – Over 75 of those sampled participated
  – About 25 volunteer schools

Kindergarten and Third Grade

• Parent Survey
• Student Oral Health Screening - Screening assistance provided by Registered Dental Hygienist
• Student Height/Weight assessment
• 24 Schools sampled for 2017
  – 22 of those sampled participated
Middle School (MS) and High School (HS) Surveys - The Basics

**Middle School (7th-8th) Survey**
- Student survey with age appropriate questions
- Self reported Ht/Wt
- 4 Survey Modules
  - Total question pool of about 90
  - Module question counts
    - Lowest: 80
    - Highest: 81
- All Schools invited to participate
- Over 120 Schools in 2017

**High School (9th-12th) Survey**
- Student survey with age appropriate questions
- Self reported Ht/Wt
- 4 Survey Modules
  - Total question pool of about 115
  - Module question counts
    - Lowest: 99
    - Highest: 110
- All Schools invited to participate
- Over 105 Schools in 2017

2017 MIYHS- Fast Facts

- **Data.mainepublichealth.gov/miyhs**
  OR
  **Maine.gov/MIYHS**
- Over 350 schools participated
- Surveying 61,000+ students.
- Over 80% of all Middle Schools (MS) & High Schools (HS)
- All Counties and Geographic PHD’s* are reportable for the first time (!!!)
  *= Population Based Tribal Public Health District Report Unavailable

MIYHS Background

- Depending on the survey module, the survey covers the following topics:
  - Alcohol, tobacco and drug use
  - Bullying
  - Sexual health
  - Injury
    - Intentional
    - Unintentional
    - Vehicle Safety
  - Housing Stability
  - Physical activity
  - Nutrition
  - Mental health
  - Protective factors
    - Self confidence
    - Perception (of: harm, supports, assets, etc.)
  - Grades
  - School Climate
  - Hours of Sleep

Confidence Intervals

<table>
<thead>
<tr>
<th>Survey Year</th>
<th>2015</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>51.3%</td>
<td>57.3%</td>
</tr>
<tr>
<td></td>
<td>(50.0%-52.5%)</td>
<td>(55.9%-58.6%)</td>
</tr>
</tbody>
</table>

- For all surveys, the reported percentage is an estimate & has some statistical error.
- This is error is accounted for by the Confidence Interval (C.I.):
  - a range defined by: the Lower Confidence Limit (LCL) & the Upper Confidence Limit (UCL).
- Like the margin of error presented in political polls, the confidence interval presents a range of values within which the true underlying rate or prevalence is likely to lie.
Confidence Intervals: Determining Significant Changes

Survey Question: (High School)
Do you agree or disagree that in your community you feel like you matter to people?

Showing HS Students who answered: ‘Agree’ or ‘Strongly Agree’

By comparing the Confidence Interval of this data point in 2015 and 2017, it can be seen that there is no overlap between the C.I.'s.
This means there is a statistically significant difference between the percent of high school students who reported that they feel like they matter in their community in 2015 and the percentage in 2017.

Survey Year
2015 2017
51.3% 57.3% (50.0%-52.5%) (55.9%-58.6%)

Confidence Intervals: Example
Significant Change trending over time

Survey Question: During your life, how many days have you had at least one drink of alcohol?

Showing HS Students who answered: At least 1 day

By comparing each Confidence Interval of this data point from: 2009, 2011, 2013, and 2015, it can be seen that there is no overlap between the C.I.'s.
This means there has been a statistically significant decrease in Maine high school students who reported drinking alcohol at least once since 2009.

Survey Year
2009 2011 2013 2015
64.1% (62.1%-65.1%) 59.4% (58.2%-60.6%) 54.5% (53.1%-55.8%) 50.9% (49.3%-52.0%)

WHAT’S NEW

From the 2017 Maine Integrated Youth Health Survey
2017 MIYHS Data- A Few Highlights

• 11% of Maine HS students reported being of LBG sexual orientation
• 1.5% of Maine HS students reported identifying as transgender
• 22% of Maine HS students reported being bullied on school property \textit{in the past year}
• 46% of Maine MS students reported being bullied on school property \textit{in their lifetime}
• Significantly more Maine HS students agreed that “at least one of their teachers really cares and is there for help and support” as compared to 2015 (81.5% vs. 79.7%)
• 22% of Maine 5\textsuperscript{th} & 6\textsuperscript{th} grade students reported being home alone for more than 2 hours on an average school day.

• Significantly fewer Maine HS students reported smoking a cigarette in the past 30 days as compared to 2015 (8.8% vs. 10.7%)
• Significantly fewer Maine MS students reported smoking a cigarette in the past 30 days as compared to 2015 (1.9% vs 2.7%)
• About 22.5% of Maine HS students and about 4% of Maine MS students have tried alcohol in the past 30 days
• About 19% of Maine HS students and about 4% of Maine MS students have tried marijuana in the past 30 days
  • About 65% of Maine HS students reported a low perception of harm in using marijuana once or twice a week
  • About 52% of Maine HS students reported a high ease of access to marijuana

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2017 Maine Integrated Youth Health Survey
**New ?’s for 2017**

“Some people describe themselves as transgender when their sex at birth does not match the way they think or feel about their gender. Are you transgender?”

A. Yes, I am transgender  
B. No, I am not transgender  
C. I am not sure if I am transgender  
D. I do not understand the question

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**Housing Insecure**

- 96.4% Not Transgender  
- 3.6% Transgender

**Bullied in School, Past 12 Months**  
- 21% Not Transgender  
- 46% Transgender

**Depression, Past 12 Months**  
- 26% Not Transgender  
- 71% Transgender

**Considered Suicide, Past 12 Months**  
- 14% Not Transgender  
- 54% Transgender

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**New ?’s for 2017**

“During the past 30 days, where did you usually sleep?”

A. In my parent’s or guardian’s home  
B. In the home of a friend, family member, or other person because I had to leave my home or my parent or guardian cannot afford housing  
C. In a shelter or emergency housing  
D. In a motel or hotel  
E. In a car, park, campground, or other public place  
F. I do not have a usual place to sleep  
G. Somewhere else
How are ACEs measured in other national surveys?

Behavioral Risk Factor Surveillance Survey (BRFSS)

What is it?
- [https://www.cdc.gov/violenceprevention/ace_study/ace_brfss.html](https://www.cdc.gov/violenceprevention/ace_study/ace_brfss.html)
- “The BRFSS is an annual, state-based, random-digit-dial telephone survey that collects data from non-institutionalized U.S. adults regarding health conditions and risk factors.”

So, What does it measure?
- BRFSS surveys adults aged 18+ years old
- Asks about ACEs experienced during “first 18 years of life”
- “Adapted from the original CDC-Kaiser ACE study...to collect information on child abuse and household challenges”
- Does not include Neglect Measures

BRFSS 2010 Data

<table>
<thead>
<tr>
<th>Number of Adverse Childhood Experiences (ACE Score)</th>
<th>Women Percent (N =32,539 )</th>
<th>Men Percent (N =21,245)</th>
<th>Total Percent (N =53,784)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>40.0%</td>
<td>41.4%</td>
<td>40.7%</td>
</tr>
<tr>
<td>1</td>
<td>22.4%</td>
<td>24.9%</td>
<td>23.6%</td>
</tr>
<tr>
<td>2</td>
<td>13.4%</td>
<td>13.2%</td>
<td>13.3%</td>
</tr>
<tr>
<td>3</td>
<td>8.0%</td>
<td>8.1%</td>
<td>8.1%</td>
</tr>
<tr>
<td>4 or more</td>
<td>16.2%</td>
<td>12.4%</td>
<td>14.3%</td>
</tr>
</tbody>
</table>
**National Survey on Children's Health (NSCH)**


**So, What does it measure?**
- Parental Response of youth 0-18
- Answer of Interest: "% of Children to experience 1 or more (or 2 or more) Adverse Childhood Experiences"
- Denominator (experiences asked about): 8 ACEs
- **2015-2016 Maine %: 25%** of Maine's youth 0-18 have experienced 2 or more ACES

**Image source:** https://www.cdc.gov/violenceprevention/acestudy/about.html

**Child and Adolescent Health Measurement Initiative (CAHMI)**

**What is it?**
- "The Child and Adolescent Health Measurement Initiative (CAHMI) is a national initiative based out of the Bloomberg School of Public Health at Johns Hopkins University in Baltimore, Maryland. Originally housed at FACCT – Foundation for Accountability, the CAHMI was established in 1998."

**So, What does it measure?**
- The CAHMI ACE agenda and data work utilizes NSCH ACE datasets
- For more NSCH info, see previous slide

**Image source:** https://www.cdc.gov/violenceprevention/acestudy/about.html

**MIYHS ACE question**

- Question asked for first time in 2017 HS survey.
- MIYHS ACE question includes similar items to those in the original ACEs study.
- ACE score includes responses to separate questions on sexual violence and domestic violence at home.
- Did not include parental substance abuse, but planning to include in 2019 version.

**ACE question wording**

Please tell us how many of the following six things have EVER happened to you (add up how many ever happened to you):
- Your parents/guardians got divorced or separated
- A parent/guardian died
- A parent/guardian was in jail or prison
- You lived with an adult who had a mental illness
- Your parent or another adult you lived with often swore at you, insulted you, put you down, or humiliated you
- You were physically hurt by an adult in your home
Additional ACE score questions

- **Sexual violence:** Have you ever been forced (physical or otherwise) to have sexual contact?
- **Exposure to domestic violence at home:** Has violence in your home, or the threat of violence, ever made you want to leave home, even just for a short while?

Nearly 1 in 4 Maine high school students have experienced 3 or more ACEs.
The majority have experienced less than 3; over one-third have experienced no adverse events.

Experiencing 3 or more ACEs...
... was more common in Piscataquis, Waldo and Washington counties.

Experiencing 3 or more ACEs...
... was more common among girls and LGB students compared with boys and heterosexual students.
Experiencing 3 or more ACEs...

... was more common among American Indian, Multiracial and Hispanic/Latino students relative to students of other races or non-Hispanic ethnicity.

<table>
<thead>
<tr>
<th>Race/Group</th>
<th>ACE Score of 3 or Higher</th>
<th>ACE Score of Less Than 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic Not Hispanic</td>
<td>23.2%</td>
<td>18.6%</td>
</tr>
<tr>
<td>American Indian or Alaskan Native</td>
<td>22.7%</td>
<td>18.6%</td>
</tr>
<tr>
<td>Asian</td>
<td>23.0%</td>
<td>5.5%</td>
</tr>
<tr>
<td>Black or African American</td>
<td>23.0%</td>
<td>5.5%</td>
</tr>
<tr>
<td>Multiple Races</td>
<td>22.5%</td>
<td>5.5%</td>
</tr>
</tbody>
</table>

Over one-third of students with 3 or more ACEs reported having experienced bullying at school in the past year, compared less than 17% of students with less than 3 ACEs.

Smoking cigarettes and using alcohol in the past 30 days were both higher among students with 3 or more ACEs.

- Smoked cigarettes in past 30 days:
  - ACE score of 3 or higher: 17.7%
  - ACE score of less than 3: 5.5%

- Used alcohol in past 30 days:
  - ACE score of 3 or higher: 34.6%
  - ACE score of less than 3: 18.6%

Strong familial love and support was protective against suicide consideration and smoking among higher ACE students.

- Seriously considered suicide in the past year:
  - 26.6% of students with strong familial support
  - 44.3% of students without strong familial support

- Smoked cigarettes in the past 30 days:
  - 13.2% of students with strong familial support
  - 24.2% of students without strong familial support
Higher ACE students with frequent support from non-parental adults were less likely to consider suicide or smoke cigarettes.

- 26.3% of students with support from non-parental adults
- 40.8% of students without support from non-parental adults
- 13.4% of students with support from non-parental adults
- 21.5% of students without support from non-parental adults

Challenges and limitations

- MIYHS data are generalizable to public school students, but not to young people who are not in school.
- ACE and protective factor questions are at end of the HS survey and have higher % of missing answers.
- ACE question leaves out exposure to substance use in home.
- Not able to assess association between ACE score and academic performance; questions are on different survey modules.
- On-going efforts are underway to improve quality of MIYHS data.

Higher ACE students who felt their school "cares about kids" were less likely to experience suicidal ideation or to smoke.

- 26.9% of students who feel their school cares about kids
- 37.7% of students who don’t feel their school cares about kids
- 11.8% of students who feel their school cares about kids
- 21.6% of students who don’t feel their school cares about kids

2017 MIYHS Data- Helpful Hints and Where to find the data:

- **2017 Detailed Reports-**
  - All pdf versions of reports have a “search” function-Ctrl+F (use either key words or variable code)
- **The Comparison Reports-**
  - These highlight only core measures
  - Meaning that these showcase the data that is available all the way down to the school level (as response rates and confidentiality allows)

For both sets of reports above, See [here](#) (click the “Reports by” at data depth needed for a drop down menu to appear)

- **Data Dashboard-**
  - Has been updated with 2017 MS and HS data, along with some new measures! See [here](#)
- **Topic Specific Infographics**
  - Previous year’s formats have been updated and can be found [here](#)
  - New formats are being developed (including Transgender, LGBT, and more)!
The Website

Thank you!

- Questions?
- Contact information:
  Reid Plimpton- Reid.plimpton@maine.gov or 207-287-5084
  Sheila Nelson- Sheila.nelson@maine.gov or 207-287-3856