Through the Eyes of a Child: Exploring, Explaining, and Exposing Risk Factors and Suicide Ideation Using the Youth Risk Behavior Surveys

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Data based on the 2009 CDC National, States, and Delaware Youth Risk Behavior Surveys

Presented at the GLS 2011 State/Tribal Grantee Meeting, Baltimore, MD February 17, 2011
Supported in part by the Garrett Lee Smith State and Tribal Youth Suicide Prevention Grant Program
What we want to accomplish in this workshop

1. Show you what data are available for states to use in the YRBS;
2. Show you some additional uses you can make of your state data by contacting your state’s YRBS rep;
3. Show you how we have been using these data in Delaware for assessment, presentation, and evaluation; and
4. Most importantly, brainstorm on ways to better measure our efforts.
What is the YRBS?

- The CDC’s Youth Risk Behavior Survey is conducted in most states in odd numbered years and monitors 6 categories of health risk behaviors:
  - Injuries and violence including suicide thoughts and attempts;
  - Tobacco use;
  - Alcohol and other drug use;
  - Sexual behaviors contributing to pregnancy and STDs/HIV;
  - Unhealthy dietary behaviors;
  - Physical Activity
YRBS High School Participants, 2009
(47 States, some territories, tribes, cities)
YRBS Middle School Participants, 2009
(16 States, some territories, tribes, cities)
Getting to the YRBS page

• Google “YRBS” and look for the Youth Risk Behavior Surveillance System
  – www.cdc.gov/HealthyYouth/yrbs/index.htm
This is the link you use to get to the YRBS tables.
To get at your state’s data: Select your location here.
Select your question here...

- **Question:** Considered suicide
- **Location:** Delaware
- **Year:** 2009

...and year here.

Filter the sample with these checkboxes.

- Race/Ethnicity
  - American Indian or Alaska Native
  - Asian
  - Black or African American
  - Hispanic
  - Native
  - Other Racial/Ethnicity
  - White
  - Multiple Race
  - All Races/Ethnicities

- Grade
  - 9th
  - 10th
  - 11th
  - 12th
  - All Grades

Use these options to break the variables out by constituent groups.

**View Data by Demographics**

- **Column Variable:** Sex
- **Row Variable 1:** No Selection
- **Row Variable 2:** No Selection

**Serious Considered Attempted Suicide**

For the 12 months before the survey,

Delaware, High School Youth Risk Behavior Survey, 2009

Find out if there is a statistical difference between females and males. Select them, then click the button.

<table>
<thead>
<tr>
<th>Year</th>
<th>Sex</th>
<th>Total</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>13.5</td>
<td>2,363</td>
<td>17.2</td>
<td>9.8</td>
</tr>
</tbody>
</table>

**Footnotes**

† Percentage, confidence interval, cell size
### Seriously Considered Attempting Suicide
(during the 12 months before the survey)
**Delaware, High School Youth Risk Behavior Survey, 2009**

Find out if there is a statistical difference between females and males. Select them, then click the button.

<table>
<thead>
<tr>
<th>Race</th>
<th>Sex</th>
<th>Total</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>13.5 (12.0–15.3)</td>
<td>17.2 (14.5–20.2)</td>
<td>9.8 (7.9–12.2)</td>
</tr>
<tr>
<td>AI/AN</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Asian</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Black</strong></td>
<td></td>
<td>11.2 (9.1–13.6)</td>
<td>13.0 (9.2–18.2)</td>
<td>9.3 (5.7–14.8)</td>
</tr>
<tr>
<td>Hispanic</td>
<td></td>
<td>21.9 (16.3–28.7)</td>
<td>26.7 (19.5–35.4)</td>
<td>14.0 (7.8–23.9)</td>
</tr>
<tr>
<td>NHOPIL</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>White</td>
<td></td>
<td>12.8 (10.9–15.0)</td>
<td>16.9 (13.6–20.9)</td>
<td>9.1 (7.2–11.5)</td>
</tr>
<tr>
<td>Multiple Race</td>
<td></td>
<td>16.9 (10.9–25.3)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Footnotes**

† Percentage, confidence interval, cell size
What’s Different about the Delaware Youth Risk Behavior Survey?

• Delaware does both a High School (n=2,416 in 2009) and a Middle School (n=3,852 in 2009) YRBS. In 2009 47 states did the High School YRBS, but only 16 did the Middle School YRBS.

• Delaware identifies vulnerable populations
  • Sexual minorities
  • Physically disabled and learning disabled
  • Homeless
  • Children of active military and of incarcerated
What else is different about the Delaware Youth Risk Behavior Survey? Delaware asks about:

- prescription drug abuse and use of herbal substances to get high
- abusive dating relationships
- cutting
- gambling
- sleep
- mental health attitudes and context (middle school survey)
- support from family and others
Here is an example of how we have used the YRBS to look at suicide ideation in Delaware school youth—with an attempt to see it from the child’s perspective:
Let’s take a look at an average Delaware child . . .
This is Sophia.
Sophia just started Kindergarten. She lives in our most densely populated county, one of over 5,000 Delaware girls her age, one of over 10,000 children her age.
Sophia, like half of all children born in Delaware, received WIC. Her mom, a single parent, works and takes classes at Del Tech so she can eventually better support her two girls.
Sophia has had health insurance through Medicaid and the Delaware Healthy Children Program, and attends day care with “Purchase of Care” payments. The State of Delaware has a BIG investment in her.
She is healthy, happy, smart, and secure.
Sophia cares for others, especially her active younger sister.
She is involved in the community,
and has dreams for the future.
Soon, Sophia will be part of an average Delaware classroom of 25 students.
In Sophia’s average 6th grade classroom:

- 28% will have tried an alcoholic drink (not just a sip) this represents about 7 children in Sophia’s classroom.
By the time Sophia is in 8th grade:
• 50% of Delaware 8\textsuperscript{th} graders drank \textit{alcohol}
• 22% of Delaware 8th graders have smoked marijuana. [From our other studies in Delaware we know that:
  - 2 in 3 do not see great risk in trying it
  - 1 in 3 know where to buy marijuana
Almost two-thirds of Sophia’s class have been in a physical fight in the past year.

And about 5 students in Sophia’s average 8th grade class have carried a weapon.
31% of Delaware 8th graders report having had sexual intercourse

8 of Sophia’s classmates are probably sexually active
• 10% of Sophia’s 8th grade classmates are medicated to help them concentrate better in school

• 4% of her classmates are medicated for depression or anxiety
In 2009, two students in Sophia’s average 8th grade Delaware classroom reported attempting suicide in the past year.
The numbers are more alarming when we see how many considered suicide. Among Delaware middle school students in 2009, 21% reported seriously considering attempting suicide during the past 12 months. That is 5 students in Sophia’s average classroom….
Delaware Middle School Girls are more likely than Boys to report suicide is:

- Considered:
  - Male: 15% (n=292)
  - Female: 26% (n=490)

- Planned:
  - Male: 8% (n=153)
  - Female: 13% (n=258)

- Attempted:
  - Male: 4% (n=232)
  - Female: 13% (n=97)
Delaware MS Hispanics are more likely to report suicide than Whites or Blacks:

<table>
<thead>
<tr>
<th></th>
<th>Black</th>
<th>White</th>
<th>Hispanic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Considered</td>
<td>21%</td>
<td>19%</td>
<td>23%</td>
</tr>
<tr>
<td>Planned</td>
<td>11%</td>
<td>10%</td>
<td>12%</td>
</tr>
<tr>
<td>Attempted*</td>
<td>8%</td>
<td>7%</td>
<td>12%</td>
</tr>
</tbody>
</table>

n=163      n=375       n=112         n=82
n=196        n=59             n=58         n=148       n=66
n=820         n=1885           n=470
There are not big differences by Grade for Delaware MS Students:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Considered*</th>
<th>Planned*</th>
<th>Attempted*</th>
</tr>
</thead>
<tbody>
<tr>
<td>6th</td>
<td>17% (n=157)</td>
<td>9% (n=72)</td>
<td>8% (n=68)</td>
</tr>
<tr>
<td>7th</td>
<td>21% (n=285)</td>
<td>10% (n=151)</td>
<td>9% (n=116)</td>
</tr>
<tr>
<td>8th</td>
<td>23% (n=331)</td>
<td>13% (n=184)</td>
<td>9% (n=143)</td>
</tr>
</tbody>
</table>

n=915, n=1363, n=1024
Attempted Suicide

• There are significant differences by other risk factors—violence and victimization, substance abuse, sexual activity—that help identify the 9% of Middle School Students who reported attempting suicide (patterns are similar for those who considered or planned)
Attempted Suicide by Physical Fighting Past 12 Months Middle School

- In a physical fight: 3% (n=64) No, 12% (n=264) Yes
- Needed treatment because of physical fight: 7% (n=251) No, 23% (n=81) Yes
Attempted Suicide by Victimization
Past 4 Weeks
Middle School
(sometimes to always)
Attempted Suicide by Dating Violence Past 12 Months
Middle School

- Physically hurt on purpose by partner: 35% Yes, 7% No
  - n=273, n=57

- Partner said things to hurt: 33% Yes, 7% No
  - n=249, n=79
Attempted Suicide by Substance Use Past 30 Days
Middle School

- **Cigarettes**: 3% (Yes), 97% (No)
- **Alcohol**: 3% (Yes), 97% (No)
- **Binge drinking**: 2% (Yes), 98% (No)
- **Marijuana**: 7% (Yes), 93% (No)
Attempted Suicide by Sexual Risk Taking Behaviors Middle School

<table>
<thead>
<tr>
<th>Category</th>
<th>No (%)</th>
<th>Yes (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ever had sex</td>
<td>5%</td>
<td>21%</td>
</tr>
<tr>
<td>Sex before 13</td>
<td>5%</td>
<td>22%</td>
</tr>
<tr>
<td>3 or more lifetime partners</td>
<td>17%</td>
<td>28%</td>
</tr>
<tr>
<td>Use condom</td>
<td>29%</td>
<td>14%</td>
</tr>
</tbody>
</table>
Attempted Suicide by Mental Health Middle School

- Really sad past 4 weeks*: 4% (n=94) vs. 20% (n=243)
- Really worried past 4 weeks*: 6% (n=138) vs. 16% (n=198)
- Purposely hurt self past 12 months*: 3% (n=92) vs. 44% (n=239)

*The percentages and counts indicate the proportion of students who have expressed these feelings or behaviors.
These are the students who are still in school. Among middle school aged students in Delaware alternative schools and detention centers, 16% have attempted suicide, compared to 9% in public middle schools.
And other risk factors:

Overall rate of attempted suicide among Delaware middle school students: 9%

Among those who carried a weapon in the past 30 days: 24%

Among those who never talk to parents about their plans or feelings: 20%

Among those who are physically disabled: 34%

Among those who are learning disabled: 30%
These are the “big kids” Sophia now looks up to.
But parents **can** have an impact.

**Middle School**

<table>
<thead>
<tr>
<th>Activity</th>
<th>No (%)</th>
<th>Yes (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Get along with parents*</td>
<td>6%</td>
<td>27%</td>
</tr>
<tr>
<td>Parents listen to ideas*</td>
<td>5%</td>
<td>21%</td>
</tr>
<tr>
<td>Eat meals with parents*</td>
<td>6%</td>
<td>18%</td>
</tr>
<tr>
<td>Spend time with parents*</td>
<td>5%</td>
<td>19%</td>
</tr>
<tr>
<td>Talk about next day with parents*</td>
<td>5%</td>
<td>15%</td>
</tr>
<tr>
<td>Talk about feelings with parents*</td>
<td>6%</td>
<td>13%</td>
</tr>
<tr>
<td>Parents treat fairly*</td>
<td>6%</td>
<td>24%</td>
</tr>
<tr>
<td>Parents help with school work*</td>
<td>5%</td>
<td>16%</td>
</tr>
<tr>
<td>Feel loved and wanted*</td>
<td>6%</td>
<td>25%</td>
</tr>
</tbody>
</table>

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* denotes qualified percentages.
By the time Sophia reaches 11th grade, some of her former classmates, probably those most at risk, will have left school. Still, even among those who remain:
Out of every ten 11th graders:

- 71% used Alcohol
- 44% used Marijuana
- 49% smoked Cigarettes
- 20% misused Rx
- 61% Sexually Active
- 27% Binge Drank (30 days)
In Sophia’s average classroom, 49% have used alcohol, marijuana, or other illegal drugs in the past month.
Delaware is consistently above National Norms on the Percentage of Students Who Reported Sexual Risk Behaviors, 2009

1 Had sexual intercourse during the 3 months preceding the survey.
2 Among students who were currently sexually active.
• 63% of 11th grade students reported they had given or received oral sex—41% of 9th graders have.
• 7% of 11th grade girls report having been pregnant at least once—6% of 9th grade girls.
• 2% of 11th grade students reported that they had been diagnosed with a sexually transmitted disease (STD)—3% of 9th graders have.
• Remember, these are the students still in school.
Many students report feelings of sadness and experiment with self-injury.

- 27% stopped doing usual activities because felt sad or hopeless for 2 weeks.
- 13% purposely hurt themselves without wanting to die (e.g., cutting, scraping, or burning).

Many students report feelings of sadness and experiment with self-injury.
Girls are most likely to intentionally cut, scrape, or burn themselves.
Small Numbers of Delaware High School Youth Report Minority Sexual Orientation

- Heterosexual: 92% (N=2135)
- Homosexual: 5% (N=35)
- Bisexual: 2% (N=114)
- Not sure: 1% (N=33)

University of Delaware
And they are more likely to report that within the past year they made a plan about how to attempt suicide.

- **Heterosexual**: 7%
- **Sexual Minority**: 31%
Most of Sophia’s classmates drink. Most are sexually active. Many use drugs. Many are depressed.
Among Delaware **high school students** in 2009, 14% reported seriously considering suicide during the past 12 months. That is about 4 students in a high school classroom. Delaware’s numbers of considering, planning, and attempting are very near the national averages.
Delaware High School girls are more likely to report:

- Considered: 10% (Male) vs. 17% (Female)
- Planned: 7% (Male) vs. 12% (Female)
- Attempted: 5% (Male) vs. 10% (Female)
Delaware data is consistent with national data, in which girls are more likely than boys to:

- Consider suicide – males 10% females 17%
- Plan suicide – males 9% females 13%
- Attempt suicide – males 5% females 8%
Delaware Hispanic high school students are more likely to report suicide than Whites or Blacks.
This is consistent with Delaware middle school students and also consistent with national data, where Hispanic students are more likely to report considering and attempting suicide:

- Consider - White 13%, Black 13%, Hispanic 15%
- Attempt – White 5%, Black 8%, Hispanic 8%

(no national data on planning suicide by race)
Suicide ideation declines by grade in High School

- **Considered***
  - 9th grade: 16% (n=93)
  - 10th grade: 13% (n=82)
  - 11th grade: 11% (n=40)
  - 12th grade: 10% (n=68)

- **Planned***
  - 9th grade: 8% (n=60)
  - 10th grade: 7% (n=53)
  - 11th grade: 7% (n=26)
  - 12th grade: 7% (n=59)

- **Attempted***
  - 9th grade: 5% (n=40)
  - 10th grade: 5% (n=35)
  - 11th grade: 4% (n=16)

**Total**
- n=595 (considered)
- n=595 (planned)
- n=710 (attempted)
- n=355
Suicide ideation by Sexual Orientation in High School

- **Considered***: 40% Sexual Minority (n=76) vs 11% Heterosexual (n=221)
- **Planned***: 29% Sexual Minority (n=56) vs 8% Heterosexual (n=155)
- **Attempted***: 28% Sexual Minority (n=48) vs 5% Heterosexual (n=104)
Attempted Suicide

• There are significant differences by other risk factors—violence and victimization, substance abuse and sexual activity—that help identify the 8% of High School Students who reported attempting suicide

(patterns are similar for those who considered or planned)
Attempted Suicide by Physical Fighting Past 12 Months High School

- In a physical fight: 6% Yes, 20% No
- In a physical fight at school: 8% Yes, 32% No
- Needed treatment because of physical fight: 9% Yes, 40% No

n=72, n=93, n=109, n=56, n=129, n=36
Attempted Suicide by Victimization at School Past 12 Months
High School

- Not go because felt unsafe* (past 30 days): 8% (n=127), Yes: 32% (n=39)
- Harassed or bullied*: 8% (n=61), Yes: 19% (n=103)
- Property stolen/damaged*: 8% (n=103), Yes: 16% (n=63)
- Someone tried to hurt me*: 8% (n=108), Yes: 26% (n=57)
- Threatened with a weapon*: 8% (n=128), Yes: 29% (n=37)

* Denotes significant victimization experiences.
Attempted Suicide by Dating Violence Past 12 Months High School

- Physically hurt on purpose by partner: 34% Yes, 6% No
- Partner said things to hurt: 19% Yes, 8% No
Attempted Suicide by Life Time Sexual Victimization High School

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>34%</td>
<td>6%</td>
</tr>
</tbody>
</table>

n=89, n=70
Attempted Suicide by Substance Use Past 30 Days

High School

- Cigarettes: 7% No, 20% Yes (n=84)
- Alcohol: 6% No, 14% Yes (n=54)
- Binge drinking: 8% No, 17% Yes (n=91)
- Marijuana: 7% No, 17% Yes (n=83)

*Note: N values indicate sample sizes.
**Attempted Suicide by Sexual Risk Taking Behaviors High School**

<table>
<thead>
<tr>
<th>Behavior</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ever had sex</td>
<td>4%</td>
<td>10%</td>
</tr>
<tr>
<td>Sex before or at 13</td>
<td>7%</td>
<td>14%</td>
</tr>
<tr>
<td>3 or more lifetime partners</td>
<td>8%</td>
<td>12%</td>
</tr>
<tr>
<td>Use condom</td>
<td>12%</td>
<td>9%</td>
</tr>
<tr>
<td>Drink/use drugs before last sex</td>
<td>9%</td>
<td>15%</td>
</tr>
<tr>
<td>Diagnosed with STD</td>
<td>7%</td>
<td>22%</td>
</tr>
</tbody>
</table>

*Numbers of participants:*
- Ever had sex: n=124
- Sex before or at 13: n=60
- 3 or more lifetime partners: n=58
- Use condom: n=54
- Drink/use drugs before last sex: n=72
- Diagnosed with STD: n=89

Legend:
- **Green Bar** No
- **Blue Bar** Yes
Attempted Suicide by Mental Health
High School

<table>
<thead>
<tr>
<th>Condition</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sad for two weeks*</td>
<td>24%</td>
<td>3%</td>
</tr>
<tr>
<td>Purposely hurt self*</td>
<td>30%</td>
<td>4%</td>
</tr>
<tr>
<td>Diagnosed with depression*</td>
<td>28%</td>
<td>7%</td>
</tr>
<tr>
<td>Diagnosed with anxiety*</td>
<td>25%</td>
<td>8%</td>
</tr>
<tr>
<td>Treated for depression*</td>
<td>31%</td>
<td>8%</td>
</tr>
<tr>
<td>Treated for anxiety*</td>
<td>28%</td>
<td>9%</td>
</tr>
</tbody>
</table>

*Sad for two weeks, Purposely hurt self, Diagnosed with depression, Diagnosed with anxiety, Treated for depression, Treated for anxiety
And other risk factors:

Overall high school rates of attempted suicide----------------------------- 8%

Among students who carried a weapon in the past 30 days--------------------------------------------------------------- 15%

Among students who have abused painkillers--------------------------------- 14%

Among students who have been pregnant or gotten someone pregnant------------------------------------------------ 19%

Among students who engaged in 3 or more types of gambling--------------------------------------------------------------- 12%

Among physically disabled students----------------------------------------- 21%

Among learning disabled students---------------------------------------- 22%
As in the middle schools, high school aged students in Delaware alternative schools and detention centers are much more likely to report they have attempted suicide—14% compared to 8% in the regular public high schools.
Who is watching for warning signs in the schools?

• Teachers, staff, nurses, ... but they are often not well prepared for what to see and what to do.
7. Percentage of schools in which teachers tried to increase student knowledge on each of the following topics in a required course in any of grades 6 through 12.

- k. Sexually transmitted disease (STD) prevention
- l. Suicide prevention
- m. Tobacco-use prevention
- n. Violence prevention (e.g., bullying, fighting, or homicide)

NA = Not available
16. Percentage of schools in which the lead health education teacher received professional development (e.g., workshops, conferences, continuing education, or any other kind of in-service) on each of the following topics during the past two years.

- **k. STD prevention**: 51.6% for Middle Schools, 51.5% for All Schools, not available (NA) for High Schools.
- **l. Suicide prevention**: 26.9% for Middle Schools, 18.0% for All Schools, 9.4% for High Schools.
- **m. Tobacco-use prevention**: 45.2% for Middle Schools, 35.6% for All Schools, not available (NA) for High Schools.
- **n. Violence prevention (e.g., bullying, fighting, or homicide)**: 50.0% for Middle Schools, 51.6% for All Schools, not available (NA) for High Schools.
And when Sophia gets to College:

- 1 student in her freshman English comp class of 25 will have seriously considered suicide; and
- 1 student in her dorm of 100 students will have attempted suicide

- Source 2009 Delaware College Risk Behavior Survey