DATA-DRIVEN PREVENTION PROGRAMMING IN DELAWARE: USE OF THE DELAWARE *YOUTH RISK BEHAVIOR SURVEY* TO INFORM SUICIDE PREVENTION EFFORTS

Use of Data for Needs Assessment, Program Evaluation and Surveillance

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Background on YRBSS

The Youth Risk Behavior Surveillance System (YRBSS) monitors 6 types of health-risk behaviors:
1. Behaviors related to injuries and violence (including suicide)
2. Sexual behaviors that contribute to unintended pregnancy and STDs
3. Alcohol and other drug use
4. Tobacco use
5. Unhealthy diet
6. Inadequate physical activity

Monitoring is done through surveys (the YRBS) conducted nationally and in each state in odd numbered years.
What’s Different about the Delaware Youth Risk Behavior Surveys?

• Delaware asks a number of questions in addition to the national core study including: prescription drug abuse, abusive dating relationships, cutting, gambling, sleep, mental health attitudes and context (middle school survey), how students hear about suicides and what they think the reasons for youth suicide are (high school survey)

• Delaware does both a High School and a Middle School YRBS. Almost all states conduct the High School YRBS, but only about one-third of states conduct the Middle School YRBS. Nemours Health and Prevention has been instrumental in funding the Middle School YRBS
Use of Delaware YRBS Data for Needs Assessment

In Spring 2011 Delaware applied for a second Garret Lee Smith Award (GLS) from the Substance Abuse and Mental Health Services Administration, this time to address suicide prevention with a new focus based data-driven findings from Delaware YRBS data for middle school youth.
Data –Driven Application

1) the 50% high rates of suicide ideation among middle school students than high school students -- 22% of middle school students considered suicide as compared to 14% of the high school students in the 2011 YRBS; and

2) The low rates of teacher professional development on suicide risk (9%) and the low rates of student education on suicide (48%) in Delaware Middle Schools as compared to High Schools (27% and 92% respectively), as seen in the 2010 CDC’s Delaware School Health Profiles

• These data were cited in the grant review as persuasive arguments for the need for services for middle school students in Delaware
In Fall 2011, Delaware received the new GLS grant

- Delaware’s Garret Lee Smith Award has focused on improving middle school teacher and student awareness through several initiatives including implementing the *Lifelines Program* in most Delaware Middle Schools in Spring and Fall 2012.

- This provided an opportunity to show program effect using results from the *YRBS*.
### Cohort 6 GLS Delaware Middle Schools Participating by County and School District

<table>
<thead>
<tr>
<th>New Castle</th>
<th>Kent</th>
<th>Sussex</th>
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<tbody>
<tr>
<td>Appoquinimink</td>
<td>Capital</td>
<td>Cape</td>
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<tr>
<td>Brandywine</td>
<td>Caesar Rodney</td>
<td>Delmar</td>
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<tr>
<td>Christina</td>
<td>Lake Forest</td>
<td>Indian River</td>
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<td>Colonial</td>
<td>Polytech</td>
<td>Laurel</td>
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<td>Red Clay</td>
<td>Milford</td>
<td>Seaford</td>
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<td>NCC Votech</td>
<td>Smyrna</td>
<td>Sussex Tech</td>
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<td></td>
<td></td>
<td>Woodbridge</td>
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- 10 Middle Schools in Sussex
- 8 Middle Schools in Kent
- 25 Middle Schools in NCC
Engaging School Communities

District Leadership
- Superintendents
- School Principals
- School Personal Director

Department Chairpersons
- Student Services
- Curriculum Director
- Student Assistance Team; Parent Center

Front Line Professionals
- School Counselors
- Teachers
- Behavioral Health Consultants
Engaging School Communities

- **District Leadership**
  - Superintendents
  - School Principals
  - School Personal Director

- **Department Chairpersons**
  - Student Services
  - Curriculum Director
  - Student Assistance Team; Parent Center

- **Front Line Professionals**
  - School Counselors
  - Teachers
  - Behavioral Health Consultants
The Role of School Leaders

• To connect the school with suicide prevention resources in the larger community
• To offer consistent support to all school staff in suicide prevention activities

To see how it worked go to our youtube video at: https://youtu.be/SyGadgquMUM
Having the opportunity in 2012 to reach virtually all the Delaware public middle schools and having YRBS survey results from before (2009 and 2011) and after (2013) in both middle and high schools gave us the opportunity to do a natural experimental comparison using both before and after comparisons and middle school compared to high school.
Delaware YRBS Samples

2011 Delaware YRBS
• Middle School
  N=3,145
• High School
  N=2,299

2013 Delaware YRBS
• Middle School
  N=3,677
• High School
  N=2,756
Changes in Delaware Middle School YRBS Responses Related to Suicide Ideation before (2011*) and after (2013*)

*That is before and after the Grant-funded training and Program implementation done by DPBHS Staff
Percentage of Middle School Delaware students who seriously thought about killing themselves, 2011 and 2013

Source: Delaware Middle School Youth Risk Behavior Surveys, 2011 and 2013
Percentage of Middle School Delaware students who tried to seriously hurt or kill themselves, 2011 and 2013

Source: Delaware Middle School Youth Risk Behavior Surveys, 2011 and 2013
Why attribute the marked declines to the SAMHSA Sponsored Programming?

• The percentages of middle school students thinking about and attempting suicide were about the same in 2009 and 2011 – the reductions were in 2013, after the new prevention programming; and

• There were no significant changes in high school students reporting thinking about and attempting suicide in the same time period, as seen in these next two slides
Percentage of Delaware High School students who seriously thought about killing themselves, 2011 and 2013

Considered Suicide 2011
- Male: 10
- Female: 17
- Total: 14

Considered Suicide 2013
- Male: 10
- Female: 16
- Total: 13

Source: Delaware High School Youth Risk Behavior Surveys, 2011 and 2013
Percentage of Delaware High School students who tried to seriously hurt or kill themselves, 2011 and 2013

Source: Delaware High School Youth Risk Behavior Surveys, 2011 and 2013
Next, we wanted to see if the effects were different for different subgroups of the middle school students for “Seriously though about killing themself”

- Looked at Age, then Age by Gender; then
- Looked at Grade in School, then Race;

- The patterns of reductions between 2011 and 2013 were remarkably consistent across these subgroups of the population
Percentage of Middle School Delaware students who seriously thought about killing themselves by Age, 2011 and 2013

Source: Delaware Middle School Youth Risk Behavior Surveys, 2011 and 2013
Percentage of Middle School Delaware students who seriously thought about killing themselves by Age and Gender, 2011 and 2013

Source: Delaware Middle School Youth Risk Behavior Surveys, 2011 and 2013
Percentage of Middle School Delaware students who seriously thought about killing themselves by Grade, 2011 and 2013

Source: Delaware Middle School Youth Risk Behavior Surveys, 2011 and 2013
Percentage of Middle School Delaware students who seriously thought about killing themselves by Race, 2011 and 2013

Considered Suicide 2011
- Black: 22%
- Hispanic: 28%
- White: 20%
- Other: 22%
- Multiple: 30%

Considered Suicide 2013
- Black: 11%
- Hispanic: 13%
- White: 11%
- Other: 13%
- Multiple: 16%

Source: Delaware Middle School Youth Risk Behavior Surveys, 2011 and 2013
We are repeating the analysis using the 2015 YRBS that is currently being collected to see if the effects are sustained:

Teacher refreshed training has been done in 2014 but not direct programming in the classrooms. We want to see:

1. If the reductions in middle school suicide ideation seen in 2013 are maintained in 2015?; and

2. Do the 2013 middle school students (now in high school) show less suicide ideation than earlier cohorts of high school students?
Finally, here is an example of how we used the YRBS to look ahead at other areas to address in prevention programming. Results were used in our successful Cohort 9 application:

We added questions to the 2013 High School YRBS about:

1. How kids heard about suicides in their county or community and about the perceived major reasons why kids would consider suicide; and

2. About their perceived reasons why kids would consider suicide.
How have you Heard about Teen Suicides, 2013

Source: Delaware High School Youth Risk Behavior Surveys, 2013
Perceived Reasons why some Teenagers Commit Suicide, 2013

Source: Delaware High School Youth Risk Behavior Surveys, 2013
Other Behaviors Reported by 2013 Delaware High School Students Bullied in the Past Year

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Bullied in Past Year</th>
<th>Not Bullied in Past Year</th>
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<tbody>
<tr>
<td>Self-injury (Cutting)</td>
<td>28%</td>
<td>9%</td>
</tr>
<tr>
<td>Attempted Suicide</td>
<td>17%</td>
<td>4%</td>
</tr>
<tr>
<td>In Fight at School</td>
<td>18%</td>
<td>9%</td>
</tr>
<tr>
<td>Symptoms of Depression</td>
<td>46%</td>
<td>18%</td>
</tr>
<tr>
<td>Didn't go to School*</td>
<td>17%</td>
<td>17%</td>
</tr>
<tr>
<td>Victim of Dating Violence</td>
<td>6%</td>
<td>12%</td>
</tr>
<tr>
<td>Victim of Forced Sexual Intercourse</td>
<td>6%</td>
<td>6%</td>
</tr>
</tbody>
</table>

Source: Delaware High School Youth Risk Behavior Surveys, 2013