

The Youth Risk Behavior Survey (YRBS): Evolution of the Survey and Development of Customized Forms

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Abstract

The Youth Risk Behavior Survey is an effective tool in surveillance of youth risk behaviors. Since 1991, Centers for Disease Control and Prevention have been a rich source of support for implementing the YRBS. CDC provides sample surveys, nation-wide data for comparison purposes, and many other resources designed for successful implementation of a YRBS. CDC YRBS have some limitations and implementing their versions of the surveys might be problematic for some communities so it is common to see customization of the CDC YRBS. This paper highlights a brief history of the YRBS, mobilizing the community for input into the YRBS and examples of questions for customizing YRBS.

Purpose

The leading causes of death in the United States have a strong relationship to health behaviors. Approximately 20% to 40% of the top five leading causes of death in the United States could be prevented through healthy lifestyles (Yoon, 2014).

As a result, it is important at regular intervals, to identify a population's health behaviors in order to better understand morbidity and mortality in a given community. Utilizing sound surveillance tools will help to understand the extent to which risk factors are present in the community but also a framework for allocating resources to deal with the factors.

A good example of a sound surveillance system is the Centers for Disease Control (CDC) Youth Risk Behavior Surveillance System (YRBSS). 1991 – 2015 almost 4 million high school students completed the high school YRBS.

The purpose of this paper is to provide a brief history of CDC YRBS, present questions that have been successfully used in a customized version and involving a coalition consisting of all sectors of the community in developing a customized version.

According to CDC The YRBSS was developed in 1990 *to monitor priority health risk behaviors that contribute markedly to the leading causes of death, disability, and social problems among youth and adults in the United States. These behaviors, often established during childhood and early adolescence, include: behaviors that contribute to unintentional injuries and violence; sexual behaviors related to unintended pregnancy and sexually transmitted infections, including HIV infection; alcohol and other drug use; tobacco use; unhealthy dietary behaviors; and inadequate physical activity*

(<http://www.cdc.gov/healthyyouth/data/yrbs/overview> htm)

The YRBSS was designed to: *determine the prevalence of health behaviors; assess whether health behaviors increase, decrease, or stay the same over time; examine the co-occurrence of health behaviors; provide comparable national, state, territorial, tribal, and local data; provide comparable data among subpopulations of youth; and monitor progress toward achieving the Healthy People objectives and other program indicators activity* (<http://www.cdc.gov/healthyyouth/data/yrbs/overview> htm)

The first CDC YRBS survey was designed for high school students only. In 1995 a middle school survey was made available. The original high school survey contained 75 questions. The breakdown of questions can be seen in Table 1.

Table 1: Distribution of Questions on the 1991 High School YRBS

Topic	Number of Questions
Demographics	5
Safety	8
Weapons (carrying a weapon)	2
Violence	3
Suicide Ideation	4
Tobacco Use	8
Alcohol Use	4
Marijuana Use	3
Cocaine Use	4
Illegal Drug Use	1
Steroid Use	1
Injected Illegal Drug	1
Taught about AIDS/HIV	2
Sexuality	8
Told they had an STD	1
Weight	4
Diet	7
Physical Activity	8

The most current (2017) High School YRBS includes 89 questions, eleven more than the original survey. The distribution of the 2015 YRBS can be seen in Table 2.

Table 2: Distribution of Questions on the 2017 High School YRBS

Topic	Number of Questions
Demographics	5
Height/Weight	2
Safety	4
Violence-Related Behaviors	11
Bullying	2
Depression and Suicide Ideation	5
Tobacco Use	8
Electronic Vapor Produce Use	3
Alcohol Use	6
Marijuana	3
Cocaine	1
Inhalant Use	1
Heroin Use	1
Methamphetamine Use	1
Ecstasy Use	1
Synthetic Marijuana Use	1
Steroid Use	1
Prescription Pain Medications	1
Injecting Illegal Drug	1
Injecting Illegal Drug on School Property	1
Sexual Behavior	9
Body Weight (Self-Perception)	2
Diet	9
Physical Activity	5
Concussions	1
Tested for HIV	1
Visiting a Dentist	1
Told by a Doctor or Nurse They had Asthma	1
Hours of Sleep per Night on School Nights	1
Grades in School (Self-Report)	1

Customized Version

The CDC YRBS, while good, contains questions to which the answers may not be needed (e.g. During the past 7 days how many times did you eat carrots?) or does include important questions such as domestic violence, gang activities and prescription drug use. Further, the current CDC version does not include all the necessary questions to report on the CORE measures as required for many Drug-Free Communities grants. The CORE measures are 30-day use, perception of harm, perception of peer disapproval, and perception of parental disapproval for alcohol, tobacco, marijuana and prescription drugs. To that end, in cooperation with the Prevention Council of Roanoke County questions have been added that have both

met the CORE measure reporting requirements and well as collecting data on area/issues/behaviors deemed important by members of the data committee. These questions are related to violence, prescription drug use, physical activity, technology, bullying, parental disapproval and an expansion of questions related to substance abuse behaviors.

Violence-Related Questions

Have you ever been physically harmed (that caused a scar, black and blue marks, welts, bleeding or a broken bone) by someone in your family or someone living with you?

- A. Never
- B. Once
- C. 2 – 3 times
- D. 4 – 10 times
- E. More than 10 times

Have you ever seen or heard someone in your home being physically harmed (that caused a scar, black and blue marks, welts, bleeding or a broken bone)?

- A. Never
- B. Once
- C. 2 – 3 times
- D. 4 – 10 times
- E. More than 10 times

Are you aware of any gang activities in your school?

- A. Yes
- B. No

Have you ever been approached to join in gang activities?

- A. Yes
- B. No

Do you find yourself getting impatient immediately when things don't go your way?

- A. Yes
- B. No

Prescription Drug Questions

How much do you think people risk harming themselves (physically or in other ways) if they use prescription drugs to get high?

- A. Great risk
- B. Moderate risk
- C. Slight risk
- D. No risk

How wrong do your parents feel it would be for you to use prescription drugs to get high?

- A. Very wrong
- B. Wrong
- C. A little bit wrong
- D. Not wrong at all

How wrong do your friends feel it would be for you to use prescription drugs to get high?

- A. Very wrong
- B. Wrong
- C. A little bit wrong
- D. Not at all wrong

My family has clear rules about drug use.

- A. Yes
- B. No

Physical Activity Questions

During the past 12 months, on how many sports teams did you play? (Include any teams run by your school or community groups.)

- A. 0 teams
- B. 1 team
- C. 2 teams
- D. 3 or more teams

In the past 7 days, on how many days were you physically active for a total of at least 60 minutes per day? (Add up all the time you spent in any kind of physical activity that increased your heart rate and made you breathe hard some of the time.)

- A. 0 days
- B. 1 day
- C. 2 days
- D. 3 days
- E. 4 days
- F. 5 days
- G. 6 days
- H. 7 days

On an average school day, how many hours do you watch TV?

- A. I do not watch TV on an average school day
- B. Less than 1 hour per day
- C. 1 hour per day
- D. 2 hours per day
- E. 3 hours per day
- F. 4 hours per day
- G. 5 or more hours per day

On an average school day, how many hours do you play video or computer games or use a computer for something that is not school work? (Count time spent on things such as Xbox, PlayStation, an iPod, an iPad or other tablet, a Smartphone, or the Web.)

- A. I do not play video or computer games or use a computer for something that is not school work
- B. Less than 1 hour per day
- C. 1 hour per day
- D. 2 hours per day
- E. 3 hours per day
- F. 4 hours per day
- G. 5 or more hours per day

Technology Use Related Questions

I have a Facebook, twitter or other web based technology account that I use personally.

- A. Yes B. No

On an average weekday, how many hours do you spend texting, blogging, chatting, etc.?

- A. I do not text, blog, or chat with others on an average weekday.
- B. Less than 1 hour per day
- C. 1 hour per day
- D. 2 hours per day
- E. 3 hours per day
- F. 4 hours per day
- G. 5 or more hours per day

Have you ever received any threatening or intimidating communication online or through texting?

- A. I do not use either a computer or cell phone.
- B. I have never received threatening or intimidating communication online or through cell phones.
- C. Yes, Fewer than 5 times
- D. Yes, 5 times or more

Have you ever sent any threatening or intimidating communication online or through texting?

- A. I do not use either a computer or cell phone.
- B. I have never sent any communication online or through cell phones.
- C. Yes, Fewer than five times
- D. Yes, More than five times

Have you ever sent sexually inappropriate pictures or messages using a cell phone or computer?

- A. Yes B. No

Family and Community Risk and Protective Factors

Would your parents be nervous or upset if they knew what you do on the internet or via cell phone?

A. Yes B. No

In the past 30 days, have you texted while driving?

A. Yes

B. No

C. I do not drive

I feel very informed about using the internet safely.

A. Yes B. No

How wrong do your parents feel it would be for you to break the law (steal, property damage, vandalism, picking a fight)?

A. Very wrong

B. Wrong

C. A little bit wrong

D. Not wrong at all

There are many chances for students in my school to get involved in sports, clubs, and other school activities outside of class.

A. Yes B. No

The school (teachers, coaches, counselors, or principal) lets me and/or my parents know when I have done something well.

A. Yes B. No

I have one or more adults in my life (who are not my parents) who encourage and listen to me.

A. Yes B. No

Do you volunteer (help without getting paid) in your community (such as helping out at a hospital, day care center, food pantry, youth program, community service agency, or faith based program)?

A. No, I do not volunteer

B. Yes, Up to 1 hour per week

C. Yes, 2-10 hours per week

D. Yes, 11 or more hours per week

When I am not at home, one of my parents knows where I am and whom I am with.

A. Yes B. No

Would your parents know if you did not come home on time?

A. Yes B. No

Eating and Drinking Behavior Questions

During the past 7 days, how many times did all, or most, of your family living in your house eat a meal together?

- A. Never
- B. 1-2 times
- C. 3-4 times
- D. 5-6 times
- E. 7 times
- F. More than 7 times

During the past 7 days, how many times did you eat fruit or vegetables (fresh or frozen)? (Do not count fruit or vegetable juice.)

- A. I did not eat fruit or vegetables during the past 7 days
- B. 1 to 3 times during the past 7 days
- C. 4 to 6 times during the past 7 days
- D. 1 time per day
- E. 2 times per day
- F. 3 times per day
- G. 4 or more times per day

During the past 7 days, how many times did you drink a sugar sweetened beverage, such as regular soda, sweet tea, sweetened juice drinks, energy (such as Monster, Red Bull, RockStar) or sports drinks (such as PowerAde, Gatorade)?

- A. I did not drink any sugar sweetened drinks during the past 7 days
- B. 1 to 3 times during the past 7 days
- C. 4 to 6 times during the past 7 days
- D. 1 time per day
- E. 2 times per day
- F. 3 times per day
- G. 4 or more times per day

Discussion

The customized version of the YRBS provides for a number of things. First, the effort to customize the YRBS involves all stakeholders – school, community, and parents. Representatives from each of the sectors of the Coalition populate the Data Committee and help to revise the instrument. Second, the questions on the YRBS are up to date in that they are providing a data source for community-specific, important issues.

The way the data is reported can greatly increase the accessibility and usability for community partners. The creation of tables designed to compare national percentages and or previous data collections is relatively simple. The authors have found that comparison tables that include the number of participants responding to the specific question variable (e.g. those that indicated drug use) and percentages values are effective and give community partners talking points for presentations. From our experience, simple

comparisons are best for distribution to community members with cross tabulation tables by grade and gender included as appendices. This combination provided for easily consumable results for those who have less sophistication reading technical reports and enough data for those who need more information for projects such as grant applications.

Survey customization may add some issues of concern as to the validity and reliability of the altered or improvised content of the survey. Modified or added questions may lack compassion data so interpreting the results can be more difficult. The data provided by questions that are developed in community collations has consistently been timely and highly valued in the creation of intervention programs. From our experience, the concerns that may arise are offset by the valuable and timely result achieved by this process.

References

- Centers for Disease Control and Prevention (CDC). Youth Risk Behavior Surveillance System (YRBSS) – Questionnaires. <http://www.cdc.gov/healthyyouth/data/yrbs/index.htm> (Accessed August 15, 2016)
- Yoon, PW, Bastiana, B, Anderson, RN, Collins, JL, Jaffe, HW. (2014). Potentially Preventable Deaths from the Five Leading Causes of Death. Morbidity and Mortality Weekly Report (MMWR). May 2, 2014.