

Working With the Prevention Research Center for Healthy Neighborhoods to Improve Data Collection and Management for the Youth Risk Behavior Survey

Ethan Feingold, BA, MPH Candidate

Preceptor: Kristina Knight, PhD, MPH

Case Western Reserve University School of Medicine

Background

The purpose of the Youth Risk Behavior Study (YRBS), a cross-sectional tool created in 1991 and administered by the Centers for Disease Control and Prevention (CDC) both nationally and locally to middle and high schoolers every two years, is to track adolescent risk behavior over time. Students respond to questions on subjects varying from dietary behaviors to drug use to sexual activity. Every year, the Cleveland-based Prevention Research Center for Healthy Neighborhoods (PRCHN) at CWRU administers the Cleveland-Cuyahoga YRBS to local schools at varying grade levels. The PRCHN then analyzes the data from their administered surveys and publishes conclusions based on the student answers to the local YRBS.

Population

The Cleveland-Cuyahoga YRBS is administered by the PRCHN in several dozen schools across Cuyahoga County. The students range in grades from 7th to 12th and are from varied socioeconomic and demographic backgrounds.

Learning Objectives

1. Identify methods for decision making using evidence-based, systems thinking, and data-driven approaches to health policy and management.
2. Apply the principles of program development, planning, budgeting, resource management, and policy evaluation in organizational or community initiatives.
3. Assist in organization of data to be able to most effectively design and implement public health surveillance tools.

Activities

My primary role was to assist in certain administrative aspects of delivering the YRBS to schools. In general, I attended meetings with my team, frequently met with the program leader to verify my continuing progress, physically administered the YRBS in several schools, and designed several deliverables, described below.

Deliverables

My first deliverable was a set of two data spreadsheets. Each sheet listed approximately thirty schools, and my job was to collect and record teacher information for each school. This included gathering the names and emails of Physical Education teachers, school nurses, school social workers or psychologists, guidance counselors, assistant principals, family/community engagement specialists, and medical clinics located at the schools. One spreadsheet was for the middle schools where the PRCHN was going to administer the YRBS, and the other was for the high schools. These spreadsheets are primarily for centralizing the information of school contacts.

My second deliverable was two sets of crosswalks. These crosswalks entailed tracking the appearance of, and changes in, every YRBS question every two years. The questions from one year vary from another year, and I recorded for both middle and high schools how the questions have changed, which have been added, and which have been removed.

My third and final deliverable was an item rationale for questions in the 2021 Cuyahoga County YRBS that were not present in the 2019 Cuyahoga County YRBS. That is, I found evidence justifying the inclusion of ten extra questions, along with fifteen questions relating to Adverse Childhood Experiences (ACEs) that had never been asked on the YRBS before. The rationales use evidence both from the YRBS's explanation of some of their questions, and also from studies not relating to the YRBS specifically.

Lessons Learned

- Many projects have large, hidden obstacles that must be overcome. Beforehand, I did not fully appreciate that one can spend over 100 hours mostly on organizing data. That is, I did not realize that so many “smaller” aspects of projects cannot be overlooked, but the time it takes to complete them must be factored into the larger project planning.



Figure 1—Logos: Logos for the Prevention Research Center for Healthy Neighborhoods, Case Western Reserve University School of Medicine, and the CDC's Youth Risk Behavior Surveillance System (YRBSS)

QR code to deliverables and poster presentation:



- The COVID-19 pandemic has been particularly harmful to young people. Many of the responses to the YRBS from the height of the pandemic show an increased strain on young people in many areas, including an increase in use of drugs and alcohol.
- All aspects of health are related in one way or another. The format of the YRBS is such that the transitions between questions and question types are logical and clear. Obesity is not independent of mental health, sexual activity is not entirely separate from the quality of a student's home life, and physical activity is linked to all other aspects.
- More needs to be done for young people in general. While I have always believed that young people, especially high schoolers, are prone to struggling emotionally, the survey and some of its responses showed that young people's problems are often ignored. More focus must be placed on improving the actual lives of children, from better nutrition to

Public Health Implications

- Listen to the people in the population with which you are working, no matter who they are. Not every middle or high schooler is equipped to accurately identify, describe, and solve all their social-emotional struggles alone. We hear very few people on the national level discuss the crisis of youth mental health or suicide, yet both issues are extremely important and relevant to the life of an adolescent.
- Inclusivity is not only the right way to approach scientific investigation it is the most accurate. While looking at YRBS questions throughout the years, I found that newer questions are almost always more inclusive of things such as gender and early childhood experiences. The questions have become more gender-inclusive, meaning the results of the survey will more accurately reflect the population it is surveying. Also, the addition of ACEs questions allows a more holistic view of a young person's life, how they were shaped by their upbringing, and how it has affected their lives.