Empowering Youth Voice: The Design and Implementation of WWISS-Cuyahoga County Youth Data Ambassadors

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Background

What Works in Schools and Surveillance-Cuyahoga County (WWISS-CC) is an initiative that aims to improve school health across 17 school districts. Understanding that students are impacted by school health policies and programs, WWISS-CC launched its first cohort of Youth Data Ambassadors during the WWISS summer 2026 internship. The Youth Data Ambassador program trained high school students in a structured, hands-on approach that prepared them to understand and communicate public health data. Youth Data Ambassadors analyzed and interpreted national and county-level Youth Risk Behavior Survey (YRBS) data to develop data literacy skills and identify focus areas of health topics to create youth-led data awareness campaigns for implementation during the 2026-2027 school year. I conducted a multidomain retrospective analysis of the 2023 National, 2023 Cuyahoga County, and 2025 Cuyahoga County YRBS datasets to better understand the alignment of YRBS trends and the health priorities the Youth Data Ambassadors selected for their data campaigns. Furthermore, I utilized the past YRBS data and interns' learning experiences to develop a curriculum guide for WWISS-CC to support trainings for future Youth Data Ambassador cohorts.

Population

- Youth Data Ambassadors: 10 high school students representing 7 of the 17 districts within the WWISS-CC consortium
- Retrospective Analysis: National 2023 YRBS sample: 20,103 student responses, 2023 Cuyahoga County YRBS sample: 13,986 student responses, and 2025 Cuyahoga YRBS sample: 6,587 student responses

Learning Objectives

.**Explain**
- Educate youth interns about public health, the YRBS, and data literacy skills including, data utilization, data awareness, and data communication

Analyze
- Apply epidemiological and statistical methods to examine youth health indicators across geographic and temporal levels

Formulate
- Develop an evidence-based curriculum to improve youth data literacy and data utilization

Activities

Data analysis supervision and support
- Performed a multi-domain, retrospective analysis of population health indicators

Instruction and facilitation
- Lead educational/interactive sessions on data literacy concepts, YRBS data, and school health

Feedback and evaluation
- Collected and analyzed data on youth feedback on the impact and effectiveness of the summer internship

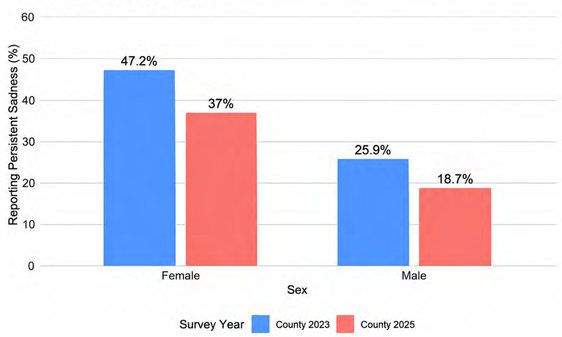
Program design and implementation
- Created an evidence-based program/curriculum guide to enhance youth data literacy skills

Methods and Results

Methods
- Retrospective, multidomain analysis of national (2023) and Cuyahoga County (2023, 2025)
  - Benchmarking analysis- Compared county-level health indicators with national estimates
  - Repeated-cross sectional analysis- Examined changes county-level health indicators between 2023 and 2025
  - Chi- square tests- Investigated demographic differences between county-level indicators across county-level datasets
  - Multivariable logistic regression- Investigated associations between demographic predictor and selected health outcomes

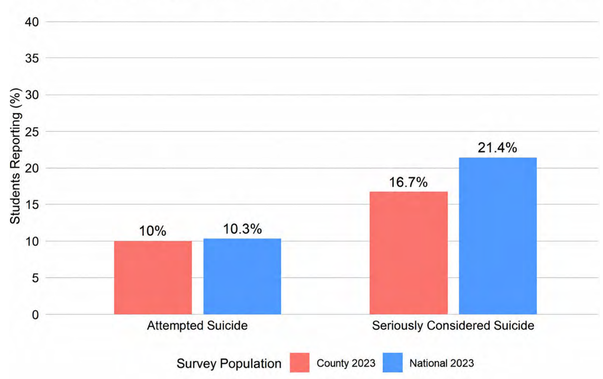
Changes in Persistent Sadness Among High School Students by Sex

Comparing the Trends of Female and Male High School Students Reporting Persistent Sadness Cuyahoga County, 2023-2025



Suicide Consideration and Attempts Among High School Students

Percentage Reporting Suicide-Related Behaviors, National and Cuyahoga County YRBS, 2023



Adjusted Associations with Poor Mental Health Among High School Students

Adjusted Odds Ratios and 95% Confidence Intervals

Predictor	National 2023	County 2023	County 2025
Male (ref: Female)	0.35 (0.32–0.38); p <0.001	0.58 (0.53–0.64); p <0.001	0.60 (0.51–0.69); p <0.001
Grade 10 (ref: Grade 9)	1.01 (0.88–1.16); p = 0.856	1.20 (1.07–1.35); p = 0.002	1.07 (0.88–1.30); p = 0.498
Grade 11 (ref: Grade 9)	1.19 (1.03–1.36); p = 0.014	1.06 (0.93–1.20); p = 0.377	1.12 (0.92–1.36); p = 0.275
Grade 12 (ref: Grade 9)	1.14 (0.99–1.31); p = 0.064	1.25 (1.10–1.42); p <0.001	1.15 (0.94–1.41); p = 0.165
Black (ref: White)	0.70 (0.61–0.80); p <0.001	0.77 (0.69–0.85); p <0.001	0.71 (0.60-0.84); p <0.001
Hispanic (ref: White)	0.71 (0.64–0.79); p <0.001	0.87 (0.76–1.00); p = 0.054	0.69 (0.48–0.98); p = 0.037
Other/Multiple (ref: White)	0.84 (0.76–0.94); p = 0.002	0.95 (0.81–1.10); p = 0.465	0.83 (0.69–1.00); p = 0.054
Persistent sadness	7.42 (6.75–8.16); p <0.001	5.38 (4.91–5.89); p <0.001	9.21 (7.97–10.64); p <0.001
8+ hours of sleep (ref: fewer than 8 hours)	0.57 (0.52–0.63); p <0.001	0.74 (0.66–0.83); p <0.001	0.63 (0.53–0.76); p <0.001

Reference categories: Female, Grade 9, White, and fewer than 8 hours of sleep. All models adjusted for sex, grade, race/ethnicity, persistent sadness, and sleep duration. * p < 0.05. County 2023 Hispanic (p = 0.054) and County 2025 Other/Multiple (p = 0.054) were not statistically significant.

Deliverables

Youth Risk Behavior Survey Data Analysis Report
- To compare county and national estimates and to assess temporal patterns of county-level indicators
- To identify demographic disparities and assess the alignment between 2026 youth interns' health priories with county-level YRBS findings

Youth Data Ambassador Curriculum Guide
- A formal guide that was created to be used for training of future Youth Data Ambassadors
- Developed to promote high school interns learning about data, public health surveillance, and school health

Lessons Learned

- Developing facilitation strategies that preserve youth ownership while still providing adult guidance.
- Translating complex data into understandable messages to communicate to audiences with varying levels of data literacy.
- Applying data literacy concepts to real-world applications through experiential, hands-on learning to promote youth engagement.
- Examining historical data trends can help identify future youth programming.

Public Health Implications

- Combats the youth data literacy gap using a curriculum focused on both technical data skills and data interpretation, communication, and responsibilities/ethics.
- Empowers meaningful youth engagement in public health research and initiatives by creating opportunities to move beyond being survey respondents.
- Completing the surveillance data cycle from collection to return. The process of returning data findings to respondents is what drives the implementation of evidence-based interventions, programs, policies, and practices.

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