

Suicide Trends and Prevention in Rural Pennsylvania Counties and Schools

By: Daniel J. Mallinson, Ph.D., Eunsil Yoo, and Brandon Cruz
Penn State Harrisburg

Key Findings:

- Suicide rates in Pennsylvania increased substantially from 1999 to 2018.
- In 2018, the suicide rate in rural counties was 25 percent higher than the rate in urban counties.
- Among rural and urban counties, there is substantial variation in suicide rates.
- Higher numbers of handgun sales per 1,000 residents, lower levels of education, lower incomes, larger populations over age 65, and higher levels of unemployment correlate with higher county suicide rates.
- Counties and school districts have highly diverse suicide prevention programs.
- Rural counties and school districts tend to be more dependent on outside support for their suicide prevention programs.
- Urban counties and school districts tend to offer more targeted suicide prevention programming.
- Few counties and school districts formally evaluate their suicide prevention programs for effectiveness.
- Suicide prevention programs across all counties and school districts were substantially impacted by COVID-19, but urban programs appeared more resilient.

Background

This study examined the overall trends in suicide across Pennsylvania's 67 counties from 1990 to 2018, the suicide prevention programs currently used by counties, and the programs that are used in K-12 school districts. The research used data from the Pennsylvania Department of Health and the U.S. Census Bureau to examine the trends in suicide rates, as well as which factors correlate with county rates. Data on county and school district programs were gathered using two surveys fielded in June and November 2020. A total of 46 counties (69 percent) and 134 school districts (31 percent) responded to the surveys. Data were gathered on each program's description, clients served, engagement with external partners, resources, evaluation procedures, and the impact of COVID-19 on the program's operation.

Research Findings

Suicide Trends

Suicide rates in Pennsylvania increased substantially from 1999 to 2018. The suicide rate among rural counties has been higher than that of urban counties, on average, and the gap has been increasing over the last decade. In 2018, the suicide rate in rural counties was 25 percent higher than in urban counties. That said, the overall rates mask substantial variation among rural and urban counties. For example, while rural counties had the largest increases in suicide rates from 1999 to 2018, York County, defined as an urban county by the Center, had a substantially higher rate in 2018, and a greater increase from 1999 than other urban counties. Of course, York County has large rural areas, so it is important to consider how rural and urban trends vary even within counties.

In assessing the factors that correlate with higher or lower suicide rates in Pennsylvania, the research found that higher numbers of handgun sales per 1,000 residents, lower levels of education, lower incomes, larger populations over the age of 65, and higher levels of unemployment were all correlated with higher county suicide rates from 1999 to 2018. Moreover, even when controlling for all of these other factors, the rural county suicide rate was higher than the urban rate. Many of the above factors themselves have rural-urban divides, thus compounding the risks for rural residents. It also appeared that broadband internet access limitations correlated with county suicide rates in 2015 and 2016, but broadband could be serving as a proxy for rurality.

County Prevention Programs

Rural and urban counties reported a diverse array of suicide prevention programming. In general, rural counties were more likely to form cross-county partnerships for the purpose of pooling resources and expanding their reach. Rural counties were also more reliant on non-county funds and networks of external partners for providing their programs. Urban counties tended to be more self-sufficient. Rural counties were also more likely to provide programming for broad audiences, whereas urban counties reported more programs that focused on a specialized audience. Rural county programs were harder hit by the COVID-19 pandemic, with many having to shutter. Urban programs exhibited greater resilience in shifting to online platforms.

School Prevention Programs

Likewise, school districts varied in their suicide prevention programming, but the differences between rural and urban districts in resourcing and programming were fewer than those among rural and urban counties. Awareness and education were the most common programming provided by both rural and urban school districts. Roughly half reported their programs as being part of their Student Assistance Program (SAP). Many programs, like student clubs, were reported to have no cost to the school district. In fact, the median cost of reported programs for both rural and urban districts was nothing.

Program Evaluation

It was clear from both the county and school district surveys that neither are highly engaged in program evaluation. Reported methods of evaluation that were used occasionally included pre- and post-tests

for education programs as well as other perception-based satisfaction surveys. More often, respondents reported using informal metrics like counts of individuals served. Roughly 60 percent of counties and 83 percent of school district programs did not report any program evaluation.

The research report, *Suicide Trends and Prevention in Rural Pennsylvania Counties and Schools*, is available at www.rural.pa.gov.

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