

# How School Shootings Impact Students' Mental Health

## OVERVIEW

School shootings have increased in the United States over the last several decades. Since the Columbine shooting in 1999, more than 394,000 students have witnessed gun violence at school. These events have not only claimed the lives of children as young as 6 years old, such as in the 2012 shooting at Sandy Hook Elementary School, but they have also left a lasting impact on the survivors of school shootings.

IPR economists **Molly Schnell** and **Hannes Schwandt**, Northwestern economics doctoral student **Max Pienkny**, and Stanford economist Maya Rossin-Slater explore how school shootings affect students' mental health in a study in *AEA Papers and Proceedings*. They show that after a school shooting that resulted in at least one death, surviving students' use of medications for conditions such as anxiety and depression increased by more than 25% and stayed high for up to five and a half years. The increase was largely driven by antidepressant and antipsychotic drugs. This study points to the urgent need to prevent these shootings from ever happening—and the importance of providing ongoing mental health support for students who survive them.



Northwestern's **Molly Schnell** and **Hannes Schwandt**, both IPR economists, and economics doctoral student **Max Pienkny** examine the lasting effects of school shootings.

## FINDINGS

**The use of medications to treat acute trauma, including antidepressant and antipsychotic drugs, increased by over 25% among youth following a fatal school shooting.** Students who lived within a 5-mile radius of a school shooting that occurred between 2008 and 2013 were prescribed significantly higher rates of drugs to treat mental health issues compared to those living 10 to 15 miles away from the school.

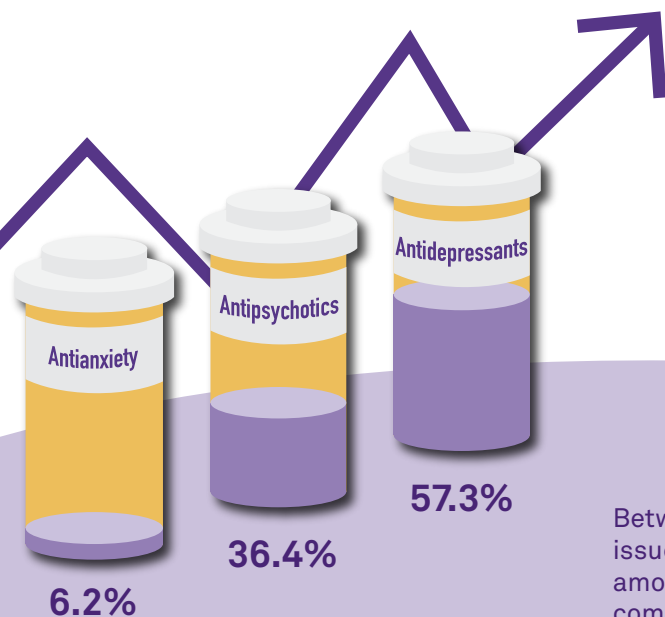
**Prescriptions for these drugs remained high up to five and a half years later.** Immediately after a shooting, medications for youth ages 5 to 19 rose sharply, according to IQVIA Longitudinal Prescription Data (LRx) from 2006 to 2018. Prescriptions peaked three and a half years after a shooting, then stayed elevated for another year and a half.

**Students who had not previously been on prescription drugs for mental health issues experienced a spike in medication use after a school shooting.** While students who were already taking drugs to treat trauma were prescribed higher doses of these medications, most of the increase in medication use was driven by new patients.

## POLICY TAKEAWAYS

- Witnessing a school shooting negatively impacts surviving students' mental health years after the event.
- Students who survive school shootings need support for their emotional and mental wellbeing.
- As American teenagers continue to experience poor mental health, the fear of potentially experiencing a school shooting could play a role in these conditions.

# Medication Use Spiked After Students Experienced a Fatal School Shooting



Between 2006 and 2018, prescriptions to treat mental health issues, including anxiety and depression, went up by over 25% among students living 5 miles away from a fatal school shooting compared to students who lives 10 to 15 miles away.

## METHODOLOGY

The researchers analyzed data from 15 fatal school shootings that occurred between February 2008 and January 2013, tracked in the Washington Post's school shootings database. Using data from the IQVIA Longitudinal Prescription Data (LRx) database from 2006 to 2018, they compared prescriptions written in a 5-mile radius of a school where a shooting occurred to those written in an area 10 to 15 miles away. The researchers focused on antidepressant, antipsychotic, and antianxiety medications—often used in the treatment of trauma—for patients who were between 5 and 19 years old at the time of a shooting.

## REFERENCE

Pienkny, M., M. Rossin-Slater, M. Schnell, and H. Schwandt. 2024. [The Lasting Impacts of School Shootings on Youth Psychotropic Drug Use](#). *AEA Papers and Proceedings*. 114: 387–93.

## FACTS AND FIGURES

- After a fatal school shooting, prescriptions to treat mental health issues went up by 25% among students living within a 5-mile radius of the school.
- Medications for antidepressants increased by 57.3%, antipsychotics rose by 36.4%, and antianxiety prescriptions went up by 6.2%.
- Three years after a school shooting, the use of medications peaked, with students living near a shooting using nearly six additional prescriptions per 1,000 youth compared to those living further away.