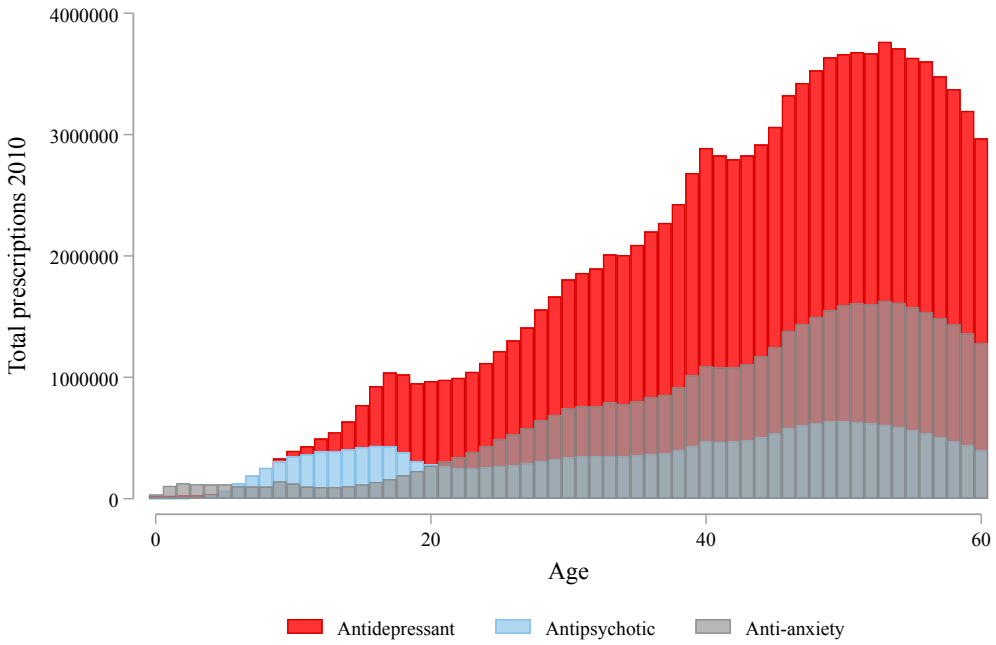
Online Appendix

The Lasting Impacts of School Shootings on Youth Psychotropic Drug Use

Pienkny, Rossin-Slater, Schnell, and Schwandt (2024)

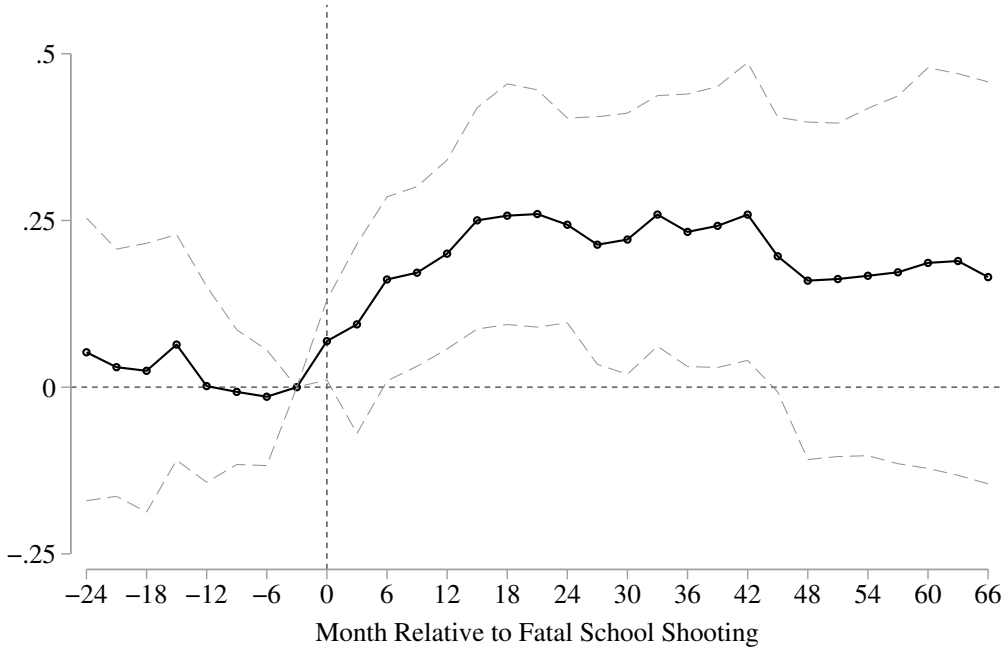
A Supplementary Figures

Figure S1: Total prescriptions by age and drug class: 2010



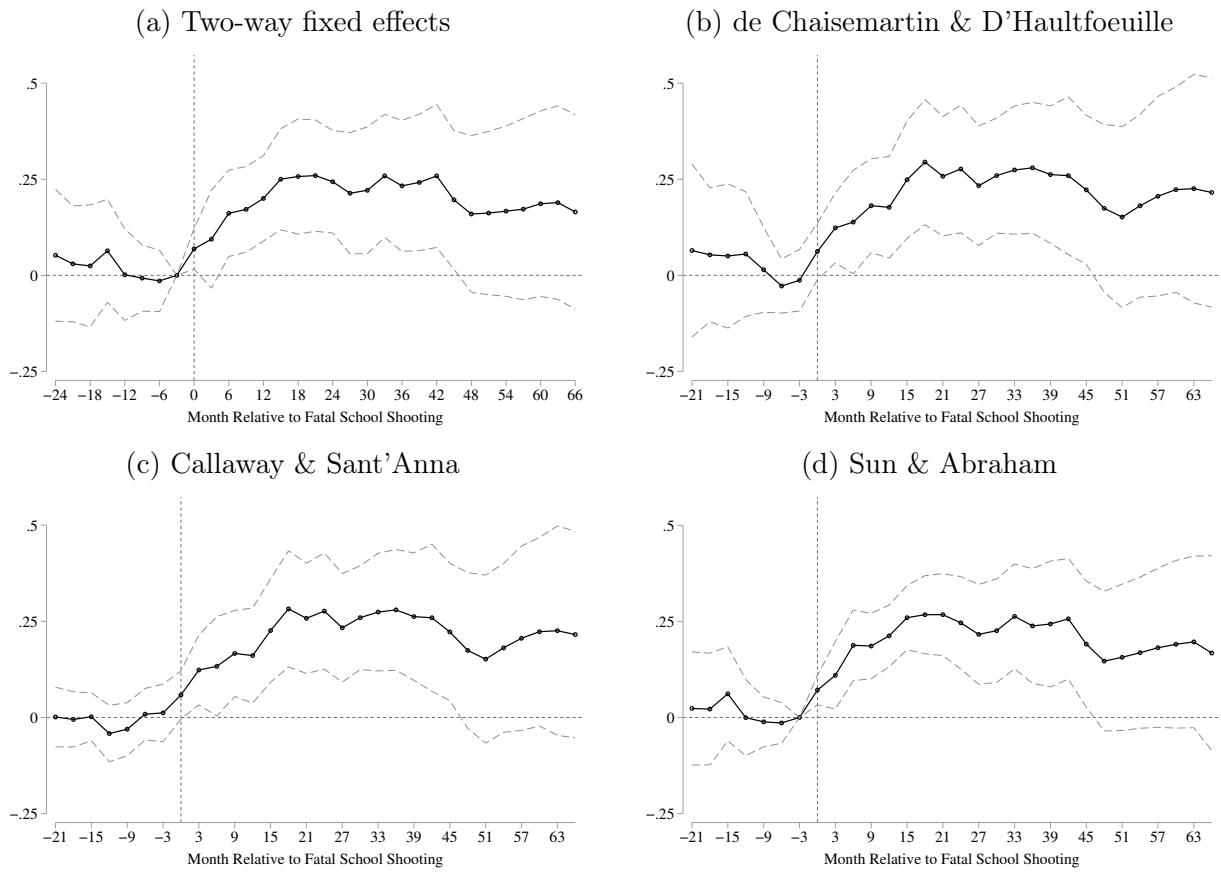
Notes: The above figure plots the total count of annual prescriptions for antidepressant, antipsychotic, and anti-anxiety medication by age for the year 2010. Prescription counts for ages above 60 are omitted from the figure.

Figure S2: Event study with wild cluster bootstrap



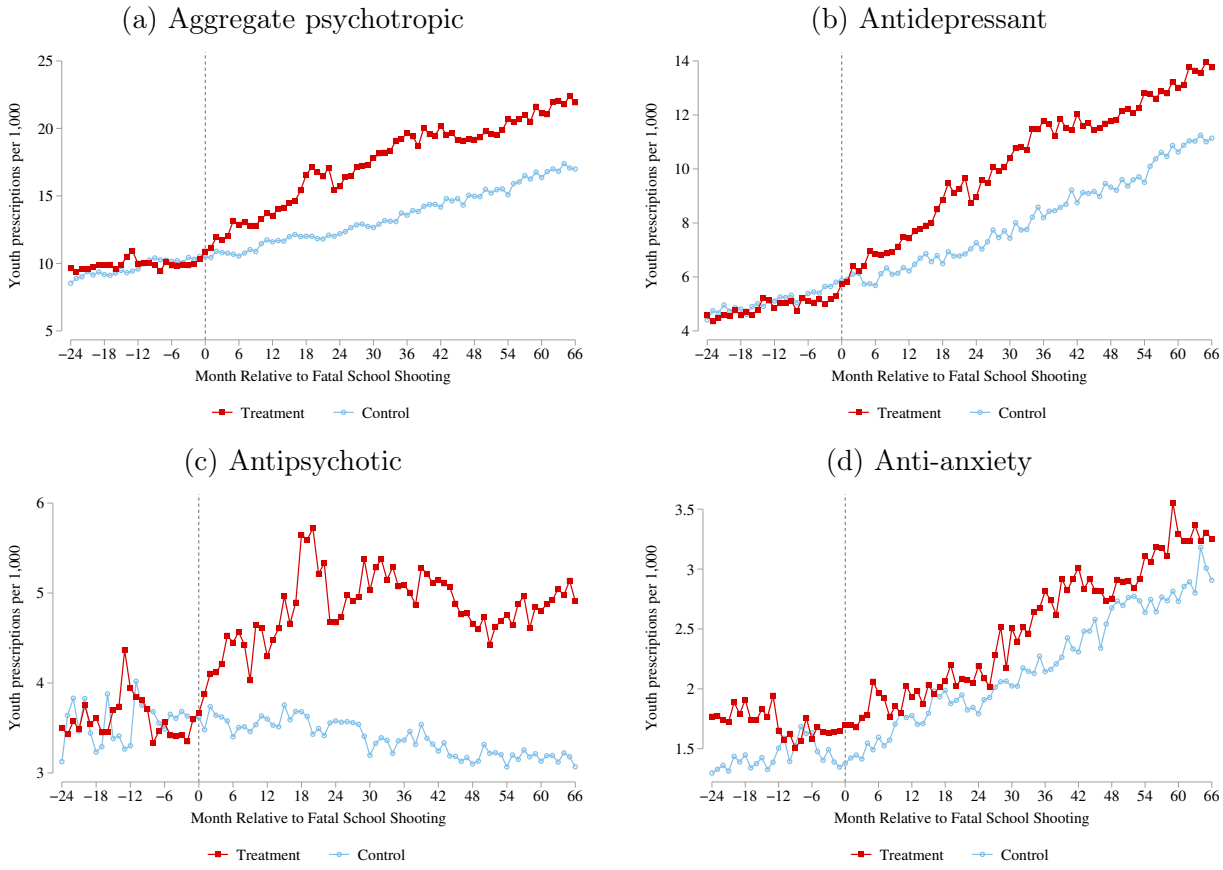
Notes: The above figure replicates the standard two-way fixed effects regression estimates shown in Figure 1(b), with alternative inference estimated by wild cluster bootstrap. The dotted lines represent 95% confidence intervals.

Figure S3: Alternative difference-in-differences estimators



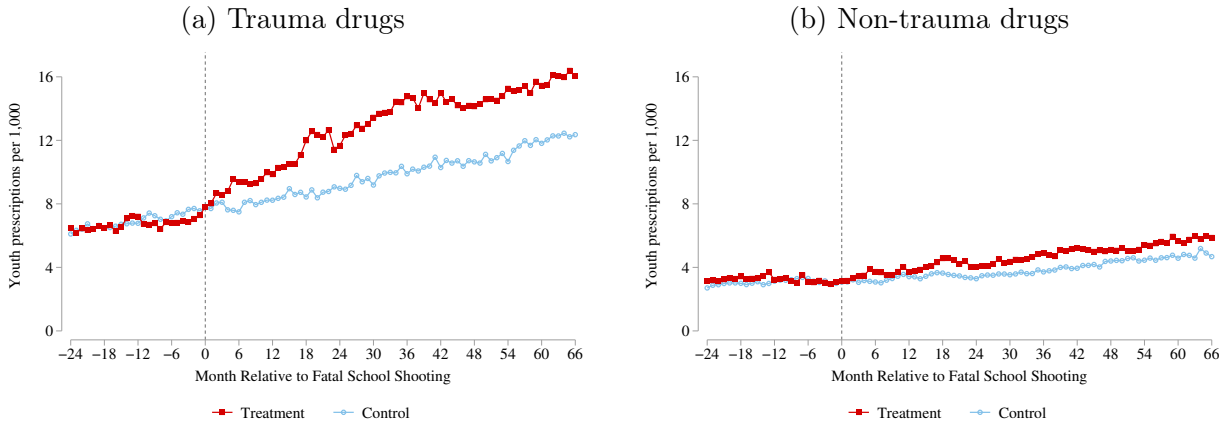
Notes: The above figure addresses robustness of our main event study specification to alternative difference-in-differences estimators. Panel (a) provides results from a standard two-way fixed effects regression for comparison (also shown in Figure 1(b) in the main manuscript). Panel (b) provides results from the estimator proposed in De Chaisemartin and d'Haultfoeuille (2020), panel (c) provides results from the estimator proposed in Callaway and Sant'Anna (2021), and panel (d) provides results from the estimator proposed in Sun and Abraham (2021). All dotted lines represent 95% confidence intervals.

Figure S4: Raw prescription trends by drug class



Notes: The above figure plots monthly averages of psychotropic prescription rates per 1,000 youth in treatment areas (0–5 miles; solid red squares) and control areas (10–15 miles; hollow blue circles) in the months surrounding a fatal school shooting. These rates are shown for aggregate psychotropic prescriptions (panel (a)) as well as separately for antidepressants (panel (b)), antipyschotics (panel (c)), and anti-anxiety medications (panel (d)). Observations are weighted by school enrollment. Our sample includes the 15 fatal school shootings considered in Rossin-Slater et al. (2020).

Figure S5: Raw prescription trends by trauma relation



Notes: The above figure plots monthly averages of psychotropic prescription rates per 1,000 youth in treatment areas (0–5 miles; solid red squares) and control areas (10–15 miles; hollow blue circles) in the months surrounding a fatal school shooting. These rates are shown separately for medications that are commonly used to treat acute trauma (panel (a)) and for those that are not (panel (b)); as outlined in the text, this categorization is done using Schatzberg and Charles DeBattista (2019). Observations are weighted by school enrollment. Our sample includes the 15 fatal school shootings considered in Rossin-Slater et al. (2020).

References

Callaway, Brantly, and Pedro HC Sant'Anna. 2021. "Difference-in-differences with multiple time periods." *Journal of econometrics*, 225(2): 200–230.

De Chaisemartin, Clément, and Xavier d'Haultfoeuille. 2020. "Two-way fixed effects estimators with heterogeneous treatment effects." *American Economic Review*, 110(9): 2964–2996.

Rossin-Slater, Maya, Molly Schnell, Hannes Schwandt, Sam Trejo, and Lindsey Uniat. 2020. "Local exposure to school shootings and youth antidepressant use." *Proceedings of the National Academy of Sciences*, 117(38): 23484–23489.

Schatzberg, Alan F, and DMH Charles DeBattista. 2019. *Schatzberg's manual of clinical psychopharmacology.* American Psychiatric Pub.

Sun, Liyang, and Sarah Abraham. 2021. "Estimating dynamic treatment effects in event studies with heterogeneous treatment effects." *Journal of Econometrics*, 225(2): 175–199.