



# ECHO

Environmental influences  
on Child Health Outcomes

A program supported by the NIH

## Study Summary

### **Children in High Gun Violence Areas Less Likely to Report Excellent Health, ECHO Study Finds**

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#### Who sponsored this study?

The Environmental influences on Child Health Outcomes (ECHO) Program, Office of the Director, National Institutes of Health supported this research.

#### Why was this study needed?

Gun violence has been the leading cause of death in children and teens in the United States since 2021. In addition to fatalities, exposure to gun violence in communities has been linked to adverse mental health outcomes in children. However, most prior studies have focused on mental health effects in older children and have not fully examined developmental or physical health impacts in younger children. This study aimed to explore the association between neighborhood-level gun violence and the general health status of children nationwide.

#### What were the study results?

The study found that parents of children living in areas with high levels of gun violence were 20% less likely to report their child's health as excellent or very good compared with children who had experienced less gun violence, even after accounting for age and neighborhood economic disadvantage. This association was consistent across age groups, with both younger and older children in high gun violence areas less likely to report excellent or very good health. The effect was strongest in children that lived in neighborhoods with high poverty and high gun violence, where they were 23% less likely to be reported as having excellent or very good health.

#### What was the study's impact?

The findings underscore the importance of community violence prevention efforts and the need to strengthen our understanding of community risk factors such as gun violence that hinder optimal child growth and development.

#### Who was involved?

The study included 13,450 children from birth to 17 years old from 56 ECHO Cohort Study Sites.

#### What happened during the study?

Researchers used data from the [Gun Violence Archive](#) to identify how much gun violence occurred in different neighborhoods, categorized into low, medium, and high levels. Then they looked at how

parents rated their children's overall health and compared it across neighborhoods. A statistical model was used to measure the link between children's health and the amount of gun violence in their neighborhood.

Footnote: Results reported here are for a single study. Other or future studies may provide new information or different results. You should not make changes to your health without first consulting your healthcare professional.

### What happens next?

Future research following children over time could help researchers better understand how exposure to gun violence affects children's health as they grow. Additional studies could also help researchers separate the impacts of gun violence exposure from other factors and explore how and why this exposure influences children's health.

### Where can I learn more?

Access the full journal article, titled "Associations between neighborhood-level gun violence and child general health status An ECHO Cohort analysis," in [Injury](#).

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