Children's Hospital of Philadelphia PolicyLab

Association of Pediatric Abusive Head Trauma Rates With Macroeconomic Indicators

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OBJECTIVE: We aimed to examine abusive head trauma (AHT) incidence before, during and after the recession of 2007–2009 in 3 US regions and assess the association of economic measures with AHT incidence.

METHODS: Data for children <5 years old diagnosed with AHT between January 1, 2004, and December 31, 2012, in 3 regions were linked to county-level economic data using an ecologic time series analysis. Associations between county-level AHT rates and recession period as well as employment growth, mortgage delinquency, and foreclosure rates were examined using zero-inflated Poisson regression models.

RESULTS: During the 9-year period, 712 children were diagnosed with AHT. The mean rate of AHT per 100,000 child-years increased from 9.8 before the recession to 15.6 during the recession before decreasing to 12.8 after the recession. The AHT rates after the recession were higher than the rates before the recession (incidence rate ratio 1.31, P = .004) but lower than rates during the recession (incidence rate ratio 0.78, P = .005). There was no association between the AHT rate and employment growth, mortgage delinquency rates, or foreclosure rates.

CONCLUSIONS: In the period after the recession, AHT rate was lower than during the recession period yet higher than the level before the recession, suggesting a lingering effect of the economic stress of the recession on maltreatment risk.

Journal:

Academic Pediatrics
Authors:
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