

9/11 dust cloud may have caused widespread pregnancy issues

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Pregnant women living near the World Trade Center during 9/11 experienced higher-than-normal negative birth outcomes, according to a new working paper by Princeton University's Woodrow Wilson School of Public and International Affairs.

These mothers were more likely to give birth prematurely and deliver babies with low birth weights. Their babies - especially baby boys - were also more likely to be admitted to [neonatal intensive care](#) units after birth. The study, led by the Wilson School's Janet Currie and Hannes Schwandt, was released by the National Bureau of Labor Economics in August.

"Previous research into the health impacts of in utero exposure to the 9/11 [dust cloud](#) on [birth outcomes](#) has shown little evidence of consistent effects. This is a puzzle given that 9/11 was one of the worst environmental catastrophes to have ever befallen New York City," said Currie, Henry Putnam Professor of Economics and Public Affairs, director of the economics department and director of the Wilson School's Center for Health and Wellbeing. "Our work suggests a simple resolution of this puzzle, which is that the women who lived in neighborhoods exposed to the 9/11 dust cloud had very different experiences than women in other parts of New York City."

The collapse of the two towers created a zone of negative air pressure that pushed dust and smoke into the avenues surrounding the World Trade Center site. Other past studies have shown that environmental

exposure to the World Trade Center dust cloud was associated with significant adverse effects on the health of adult community residents and emergency workers.

Using data on all births that were in utero on Sept. 11, 2001 in New York City and comparing those babies to their siblings, the researchers found that, for mothers in their first trimester during 9/11, exposure to this catastrophe more than doubled their chances of delivering a baby prematurely. Of the babies born, boys were more likely to have birth complications and very low birth weights. They were also more likely to be admitted to the NICU.

The neighborhoods most affected by the 9/11 dust cloud included Lower Manhattan, Battery Park City, SoHo, TriBeCa, Civic Center, Little Italy, Chinatown and the Lower East Side. Previous studies analyzing the aftermath of 9/11 on health failed to account for many women living in Lower Manhattan, who were generally less likely to have poor [birth](#) outcomes than women living in other neighborhoods.

More information: The paper, "The 9/11 Dust Cloud and Pregnancy Outcomes: A Reconsideration," can be found on *NBER*.

Provided by Princeton University

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