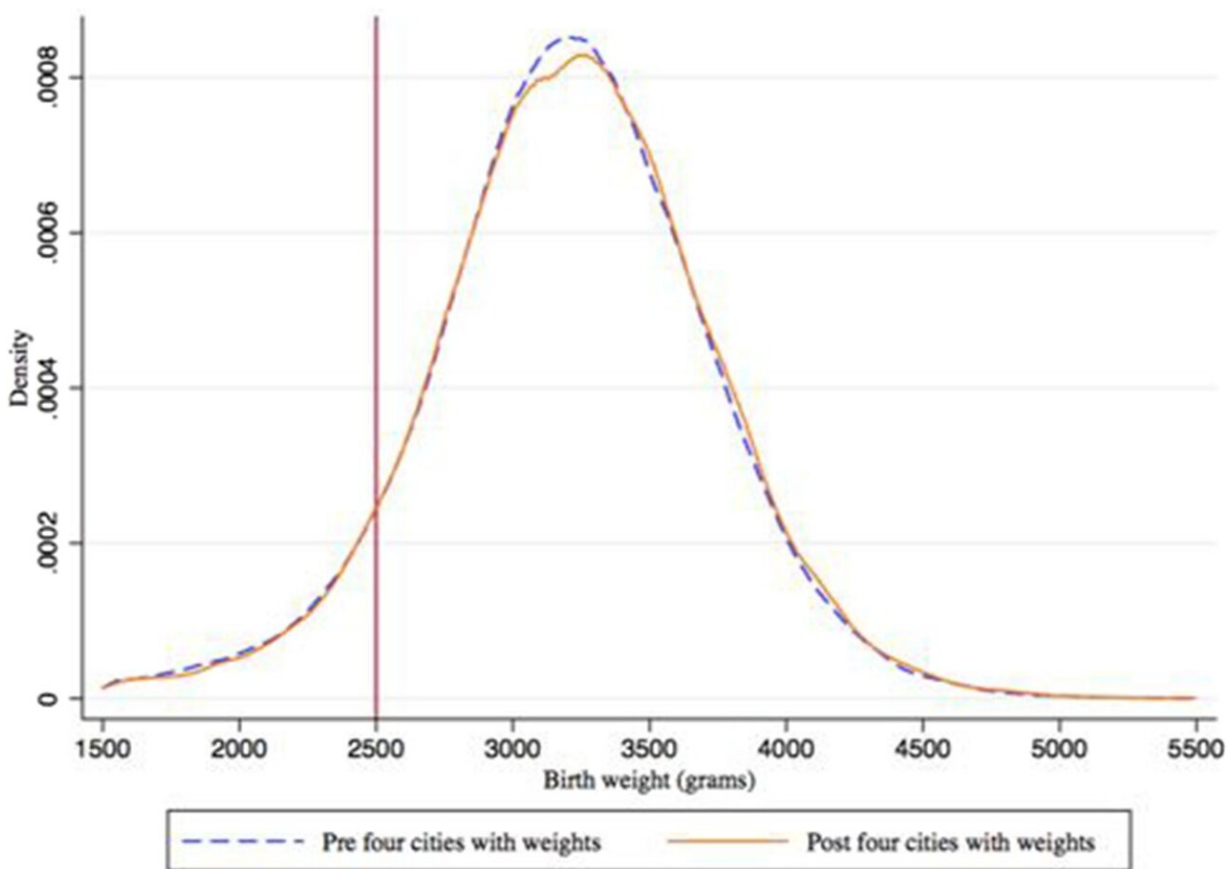
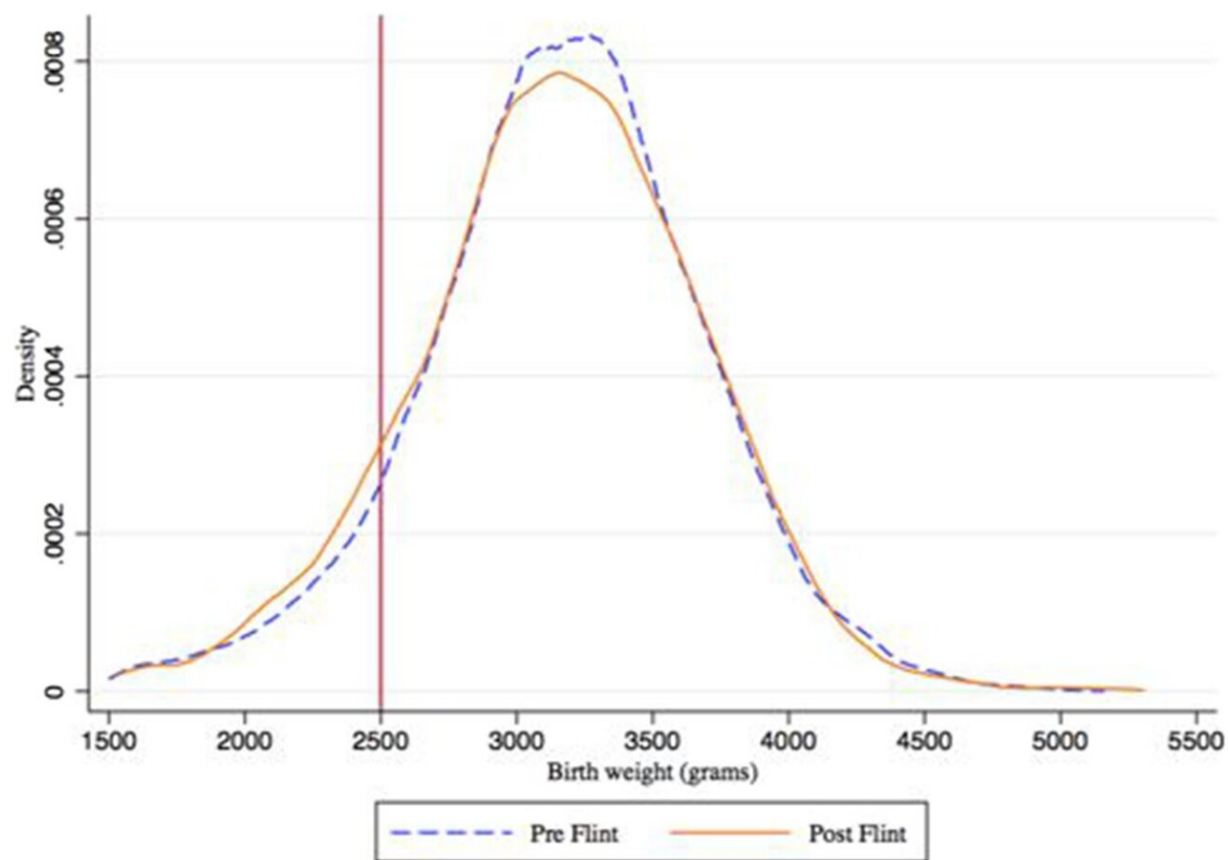


Flint water crisis worsened birth outcomes, especially for Black babies

October 21 2021, by Matthew Kristofferson



The distributions of birth weight before and after the Flint water crisis. Notes: Four cities are those having positive weights using the synthetic control method (SCM). The vertical red lines correspond to birth weight being 2500 g. Credit: DOI: 10.1007/s00148-021-00876-9

Not long after Flint, Michigan, started using river water as the local drinking supply, incidences of childhood lead poisoning skyrocketed. For the next several months, residents across the city—many of them Black and below the poverty line—would be exposed to dangerous chemicals from the polluted Flint River without knowing it.

The consequences of this decision have not yet been fully realized. But in a recent study, a team of researchers at the Yale School of Public Health have contributed vital new data points on the long-term effects of the crisis.

In their study, published in the *Journal of Population Economics*, the researchers found that the children born to mothers who were exposed to the [contaminated water](#) in Flint had a significantly lower birth weight on average compared to those in other cities. They found that Black babies have been disproportionately impacted by the exposure as well—a damning take on what many have called a crisis that resulted from systemic racism.

"This intergenerational transmission of health disparities starting from the early stage of life may lead to further enlarged gaps in health and well-being throughout the [life course](#)," said Xi Chen, associate professor and the study's lead author.

To complete their research, Chen and colleagues analyzed [large data sets](#) involving government birth records and surveys about drinking water safety. They then compared Flint's birth outcomes to those from an average of 162 cities across the country that did not experience water contamination problems. After performing a rigorous statistical analysis, they found that the frequency of low birth rate increased by 15.5 percent compared to the national composite, and that babies were born more than an ounce lighter on average.

Not all mothers in Flint were exposed to the contaminated [water](#), and not all households were supplied by the contaminated pipes. But those who ingested the chemicals may not have had the means to avoid it. Birth outcomes in babies born from Black mothers may be worse because of these systemic gaps, the authors found.

Future research could further explain how different sources of contamination impacted [public health](#), from the piping inside homes to the [river water](#) itself. But the authors caution that a deeper understanding of the broader outcomes that have emerged from the Flint Water Crisis can only come after more time has passed.

More information: Rui Wang et al, Something in the pipe: the Flint water crisis and health at birth, *Journal of Population Economics* (2021). [DOI: 10.1007/s00148-021-00876-9](https://doi.org/10.1007/s00148-021-00876-9), link.springer.com/article/10.1007/s00148-021-00876-9#citeas

Provided by Yale University

Citation: Flint water crisis worsened birth outcomes, especially for Black babies (2021, October 21) retrieved 10 April 2024 from <https://phys.org/news/2021-10-flint-crisis-worsened-birth-outcomes.html>

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