

Are Black Newborns More Likely To Survive With Black Doctors?



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In August of 2020, the *Proceedings of the National Academy of Sciences* published a [study](#) on an important topic—the huge gap in mortality between white and black newborns. Using data from Florida hospitals stretching from the early 1990s to the mid-2010s, the researchers identified a surprising factor: the race of the doctor who attended to the baby after birth.

Highlights

1. Black infants were more than 2.5 times as likely as white infants to be born with a very low weight. Very low birth weight also predicts whether a black baby is attended to by a white doctor after the birth.

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2. Black babies were less likely to die if they had black doctors, even after accounting for many other factors, per a 2020 study. We reanalyzed the same dataset and found a very different explanation.

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3. Because very low birth weights are a strong predictor of mortality, and because black newborns with this condition disproportionately see white doctors, white doctor/black patient combinations will appear particularly lethal unless one accounts for the condition directly.

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Put simply, black babies were less likely to die if they had black doctors, even after accounting for many other factors. If one were to shift 1,000 black newborns from white doctors to black doctors, about one baby would be expected to live who otherwise would have passed away.

The authors inferred that a “racial concordance” effect was saving the lives of many babies, suggested further research to determine “why Black physicians systemically outperform their colleagues when caring

for Black newborns” (such as differences in physician practice behavior), and called the findings “an important call to continue the diversification of the medical workforce.” The study received widespread media coverage and was even cited, [albeit confusingly](#), in Justice Ketanji Brown Jackson’s dissent in *Students for Fair Admissions v. Harvard*, the most important affirmative-action case in years.

In a [recent paper published in the same journal](#), as well as a [more accessible summary for the Manhattan Institute](#), we reanalyzed the same dataset and found a very different explanation: Black babies with “very low” birth weight, meaning less than 1,500 grams, are more likely to have white doctors.

The original study’s statistical models included an extensive set of control variables—such as, for example, the type of insurance covering the baby, the hospital where care was provided, and the 65 health diagnoses that were most common in the data. But the lowest birth weights were too rare to make the list, in part, because the diagnoses representing them are fine-grained. As an example, one is “‘Light-for-dates’ with signs of fetal malnutrition, 1,000-1,249 grams.”

Very low birth weight, while affecting less than 2% of U.S.-born babies, is a key predictor of mortality. A [Centers for Disease Control analysis](#) found that, among the roughly 19,000 babies who died in their first 28 days of life in 2007, about 13,500, or more than two-thirds, had a birth weight in this range. That year, black infants were more than 2.5 times as likely as white infants to be born with a very low weight.

Very low birth weight *also* predicts whether a black baby is attended to by a white doctor after the birth. In our data, about 10% of white babies have black doctors regardless of their weight. By contrast, the share of black babies with black doctors varies substantially by weight. More than 20% percent of black newborns with healthy weights have black doctors, whether owing to patient choice, matching by hospital staff, or other factors. But for black babies with the lowest birth weights, this share falls to the roughly 10% seen among white babies. As a result, only 1.4% of black babies attended by black doctors have very low birth weights, but 3.4% of black babies attended by white doctors have this serious health condition.

Because very low birth weights are a strong predictor of mortality, and because black newborns with this condition disproportionately see white doctors, white doctor/black patient combinations will appear particularly lethal unless one accounts for the condition directly. When we estimated statistical models similar to those in the original paper, but controlling for very low birth weight rather than focusing on the health diagnoses that happen to be most common, these models fit the data better, and the apparent benefit to the racial concordance of black doctors with black babies falls dramatically—becoming statistically insignificant in models that include the other controls (hospital, insurance, etc.).

There are important lessons for science here. Everyday consumers of scientific findings should maintain a healthy skepticism, because seemingly minor tweaks to statistical models often substantially change results. And just as important, scientists can improve the process by being open to challenge. We were able to replicate the original study because the authors provided us the necessary information, answered our questions, and gave helpful feedback on the original draft of our paper.

Most important of all, though, we hope our results draw more attention to the problems of low birth weight and prematurity. These are major drivers of mortality for babies of all races, and they also explain much of the racial gap in mortality.

As the [Wall Street Journal reported over the summer](#), doctors' ability to care for the tiniest babies has advanced rapidly in recent years, but not all hospitals have the necessary capabilities, and some don't attempt lifesaving care in the hardest cases. Continuing to improve, deploy, and expand the use of this care is a promising path forward.

Our results don't end the broader debate over "racial concordance" in medicine or other aspects of life. But they provide an explanation for the mortality pattern the original study found—and, hopefully, can contribute to our understanding of a serious social problem.

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