Medicaid Expansion States See Decline in Low Birth Weight for Black Infants, UAMS Researchers Report in JAMA

LITTLE ROCK — States that expanded Medicaid showed a significant reduction in low-birth-weight and preterm births for black infants, but no significant difference in those rates overall, researchers at the University of Arkansas for Medical Sciences (UAMS) report in an article published today in JAMA.

Since 1990, states have been required to provide Medicaid coverage to low-income pregnant women with family incomes up to 133% of the federal poverty level. Under the Affordable Care Act, states may expand Medicaid to adults with household incomes at or below 138% of the federal poverty level.

“We wanted to see if adverse birth outcomes would be reduced in expansion states relative to non-expansion states,” said Clare Brown, Ph.D., M.P.H., instructor in the Fay W. Boozman College of Public Health and lead author on the study. “We hypothesized that there would be greater declines among black infants because of the much higher rates of preterm birth and low birth weight among this population.”

JAMA is a peer-reviewed medical journal published by the American Medical Association. This publication makes it the first time in history that a study originating in the College of Public Health has been published in JAMA.

“The important thing to highlight here is that without a doubt, the biggest declines were in outcomes for black infants,” said Mick Tilford, Ph.D., professor and chair of the Department of Health Policy and Management in the College of Public Health and co-author on the study. “Medicaid expansion means continued health insurance for many low-income women. Insurance can lead to healthier mothers, and healthier mothers can lead to healthier babies.”

The study examined 15.6 million births from 2011 to 2016 in states that expanded Medicaid and states that did not expand Medicaid. Specifically, the study looked at the association between Medicaid expansion and rates of low birth weight and prematurity overall and among racial/ethnic minorities compared to non-Hispanic white infants.

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The data came from 18 states that expanded Medicaid and 17 states that did not. Researchers looked at preterm birth (a baby born less than 37 weeks), very preterm birth (a baby born less than 32 weeks), low birth weight (a baby weight less than 5 pounds, 8 ounces), and very low birth weight (a baby weighing less than 3 pounds, 5 ounces). These evaluations were made among all births, as well as among Medicaid-covered births and Medicaid-covered births to women with at most a high school diploma.

“We used women with at most a high school diploma as a proxy for income,” said Mick Tilford, Ph.D., professor and chair of the Department of Health Policy and Management in the College of Public Health and co-author on the study. “We assume that education is linked to income, so these are likely the most vulnerable groups.”

There was an improvement in all four outcomes for black infants in expansion states. Among black infants of mothers with at most a high school diploma, rates of very low birth weight declined 14.8% in expansion states and increased 2.1% in non-expansion states. Rates of low birth weight declined 8.3% among expansion states and increased 5.6% in non-expansion states for this subgroup.

“Babies born with a low birth weight are at much higher risk for developing chronic conditions, such as neurological, respiratory, behavioral, or educational deficits,” said Brown. “These not only lead to increased infant mortality, but they can also result in increased risk of chronic conditions throughout infancy and into adulthood, which can lead to increased medical costs and reduced proactivity.”

Brown is a 2018 graduate of the Health Systems and Services Research doctoral program in the College of Public Health and completed this study for her dissertation.

“Our findings should be considered by policy makers in their calculus of whether to expand or uphold Medicaid expansion.” Tilford said. “These results show the potential for Medicaid expansion to reduce disparities for black individuals.”

Other UAMS co-authors include Holly Felix, Ph.D., M.P.A., associate professor, and Kate Stewart, M.D., M.P.H., professor, from the College of Public Health; Curtis Lowery, M.D., director of the Institute for Digital Health & Innovation; and Jennifer Moore, Ph.D., executive director of the Institute for Medicaid Innovation Research and adjunct assistant professor at the University of Michigan Medical School.

UAMS is the state’s only health sciences university, with colleges of Medicine, Nursing, Pharmacy, Health Professions and Public Health; a graduate school; hospital; a main campus in Little Rock; a Northwest Arkansas regional campus in Fayetteville; a statewide network of regional campuses; and seven institutes: the Winthrop P. Rockefeller Cancer Institute, Jackson T. Stephens Spine & Neurosciences Institute, Harvey & Bernice Jones Eye Institute, Psychiatric Research Institute, Donald W. Reynolds Institute on Aging, Translational Research Institute and Institute for Digital Health & Innovation. It is the only adult Level 1 trauma center in the state. UAMS has 2,727 students, 870 medical residents and five dental residents. It is the state’s largest public employer with more than 10,000 employees, including 1,200 physicians who provide care to patients at UAMS, its regional campuses, Arkansas Children’s Hospital, the VA Medical Center and Baptist Health. Visit www.uams.edu or www.uamshealth.com. Find us on Facebook, Twitter, YouTube or Instagram.