

# Detection of critical heart disease before birth lags among poor

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Parents-to-be often look forward to prenatal ultrasounds, when they get the first glimpse of their baby and perhaps learn their child's sex. Ultrasound technology also allows for the detection of birth defects and other abnormalities before a baby is born.

While prenatal ultrasounds are doing a good job of identifying critical [congenital heart disease](#), those living in poor or [rural communities](#) are less likely to find out their baby has heart disease before [birth](#) than those in more affluent or urban communities, according to research to be presented Monday, April 27 at the Pediatric Academic Societies (PAS) annual meeting in San Diego.

"Routine ultrasounds are the key to identifying most congenital heart disease and many other [birth defects](#) prior to birth. This allows us to have babies delivered at a hospital that is equipped to handle their complex needs," said study author Garick Hill, MD, MS, FAAP, a pediatric cardiologist at Children's Hospital of Wisconsin. "While this study shows we have made great progress in identifying the most dangerous forms of heart disease before birth, we can and must do more, particularly in the poor, rural communities."

Dr. Hill and his colleagues reviewed the charts of 535 babies born between 2007 and 2013 who had heart surgery or catheter intervention in the first 30 days of life at the Children's Hospital of Wisconsin. Researchers determined if the patients were diagnosed with heart disease before or after birth, and they looked for factors associated with later

diagnosis.

Results showed the rate of detection of critical congenital heart disease before birth increased from 44 percent in 2007 to 69 percent in 2013. The rate varied by type of heart defect, with some lesions being diagnosed in all cases (e.g., tricuspid atresia) and some very rarely diagnosed (e.g., total anomalous pulmonary venous connection).

The type of ultrasound image required to make the diagnosis was the major determinant in how readily the diagnosis was made. Most significantly, those living in poor or rural communities were least likely to get a diagnosis before birth.

"The reason for the difference in poor, rural communities is likely due to the [health care resources](#) available," said Dr. Hill, who also is assistant professor of pediatrics, Division of Pediatric Cardiology, the Medical College of Wisconsin. "These communities did almost as well in diagnosing heart disease with standard ultrasound views but not nearly as well with more complex views and [heart disease](#). Therefore, more resources and training in these more complex views should be targeted to the medical providers in the poor, rural communities."

**More information:** Dr. Hill will present "Health Disparities in the Prenatal Detection of Critical Congenital Heart Disease" from 4:45-5 p.m. PT Monday, April 27. To view the study abstract, go to [http://www.abstracts2view.com/pas/view.php?nu=PAS15L1\\_3750.6](http://www.abstracts2view.com/pas/view.php?nu=PAS15L1_3750.6)

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