While the presence of disparities in health care is well documented, the mechanisms of such disparities are less understood, particularly in relation to mental health. This paper develops a structural model of diagnosis for a common child mental health condition, Attention Deficit Hyperactivity Disorder (ADHD). To quantify mechanisms of the male/female diagnostic disparity, I estimate sex-specific model parameters using novel electronic health record data on doctors' notes together with machine learning and natural language processing techniques. In raw comparisons, males are 2.3 times more likely to be diagnosed with ADHD than females. The model estimates imply that less than one-half of this disparity can be explained by true differences in underlying ADHD prevalence and about 50% attributed to differences in physician decision-making. I show that physicians view missed diagnosis to be costlier than misdiagnosis, especially for their male patients. Back of the envelope calculations estimate the national economic impact of ADHD diagnostic errors to be $27-$52 billion US dollars.

**Mis(sed) Diagnosis: Physician Decision Making & ADHD**

Kelli Marquardt is an economist in the economic research department at the Federal Reserve Bank of Chicago. Prior to joining the microeconomic team at the Chicago Fed in 2021, she received her Ph.D. in Economics at the University of Arizona. Her research interests include the economics of mental health, child development/well-being, physician decision-making, and disparities in health care.