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Study reveals much higher prevalence of fetal alcohol exposure

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Nearly five percent of U.S. children may be affected by fetal alcohol spectrum disorders, according to a new study at the University of North Carolina at Chapel Hill. The number is significant given that previous estimates put the occurrence of these disorders at around one percent.

The work, led by Philip A. May, research professor of nutrition at the UNC Gillings School of Global Public Health, is the first school-based ascertainment study as a measure of FASD prevalence in American children. The time-intensive approach is known not only to more accurately pinpoint the prevalence of the disorder, but also identify key risk factors that can predict it.

"Many factors make it difficult to diagnose FASD, so it has to be done correctly by qualified pediatric dysmorphologists and medical geneticists with input and data from professionals from many disciplines," said May, whose work is published in a recent issue of *Pediatrics*. "The age of the child is also important. Several characteristic facial features may become less pronounced with age; height and growth deficiencies may also be mitigated and often a child's cognitive and behavioral skills may change."

The study explored the incidence of fetal alcohol spectrum disorders among first-grade students, or 6 to 7 year olds, in Sioux Falls, South Dakota, a representative Midwestern U.S. community of 160,000 residents. The students were enrolled from all the elementary schools in Sioux Falls, both public and parochial, and were at an optimal age for

diagnosing FASD.

The research team gathered data on two groups of children. The first group was made up of small children who were in the 25th percentile or less in height, weight and head circumference; the second group, or the control group, was randomly selected. The mothers of children from both groups were interviewed for maternal risk related to alcohol consumption while pregnant.

Around 2.4 percent to 4.8 percent of all the children studied were found to have some form of FASD based on cognitive and physical attributes. Furthermore, women who had affected children displayed higher levels of weekend binge drinking before discovering they were pregnant, sought prenatal care later and less frequently and noted the fathers of their children were frequent drinkers.

More information: "Prevalence and Characteristics of Fetal Alcohol Spectrum Disorders." *Pediatrics* peds.2013-3319; published ahead of print October 27, 2014, DOI: 10.1542/peds.2013-3319

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