The CHILDhood Asthma Risk Tool (CHART) can identify children at high risk for asthma at as early as 3 years of age, according to a study published online Oct. 6 in *JAMA Network Open*.

Myrtha E. Reyna, from the Hospital for Sick Children in Toronto, and colleagues developed and evaluated the use of a symptom-based screening tool to detect children at high risk for asthma at age 3 years, persistent wheeze symptoms at 5 years, and health care burden.

The researchers found that CHART applied in the CHILD Study at 3 years of age outperformed physician assessments and the modified Asthma Predictive Index in predicting persistent wheeze (area under the receiver operating characteristic curve [AUROC], 0.94), asthma diagnosis (AUROC, 0.73), and health care use (emergency department visits or hospitalization for wheeze or asthma; AUROC, 0.70). In two external validation sets, CHART had a similar predictive performance for persistent wheeze in children at 5 years of age (AUROC, 0.82) and at 7 years of age (AUROC, 0.87).

"These findings suggest that CHART may be incorporated as a routine screening tool in primary care settings to trigger timely treatment initiatives and promote active disease monitoring," the authors write.

More information: [Abstract/Full Text](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9418904/)

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