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Impact of Absences due to Asthma on Total School Absences in Upstate New York Elementary Schools

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Rationale: Asthma absenteeism may be a useful indicator of asthma morbidity, but is difficult to track with available data. We estimated the impact of asthma absences on total school absences.

Methods: In response to a survey question, 1203 elementary school nurses in upstate NY reported the number of students who missed school due to asthma. The National Asthma Survey/NY State (unpublished data) estimated that students who missed school due to asthma averaged 8.6 asthma absences per year. We estimated the impact of asthma absenteeism by calculating the ratio of asthma absences (the number of students who missed at least one day of school due to asthma multiplied by the average number of days missed due to asthma) to total school absences (NY State Education Department attendance data).

Results: The ratio of estimated asthma absences to total school absences was 25.6 per 1000 absences (95% CI 24.0-27.2). The ratio varied by geographic location from 9.7 to 27.3 asthma absences per 1000 absences and increased with the number of school environmental triggers reported by school nurses (test for trend, $p<0.001$). A higher ratio of asthma absences to total absences was correlated with physical activity limitations ($r=0.54$) and visits to the health office ($r=0.50$) but not with asthma management practices.

Conclusions: The effect of asthma on total absenteeism may vary by school demographics and environmental conditions. Development of a model to estimate the impact of asthma absenteeism has proved challenging using existing data. Improved tracking and methods of estimating asthma absenteeism are needed.