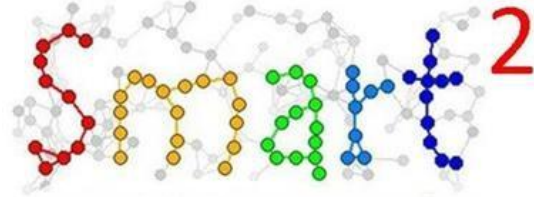


# SURVEILLANCE, MONITORING ABSENTEEISM and RESPIRATORY TRANSMISSION IN SCHOOLS UNIVERSITY OF PITTSBURGH

The SMART<sup>2</sup> research team is sending this report to thank the students, parents, administration and faculty of Canon-McMillan schools for participating this year. Substantial progress has been made to understand the connection between absences in K-12 schools and the spread of influenza in the community.



This will help improve our public health response to pandemic influenza and other respiratory diseases. For more information, please visit <http://www.smart.pitt.edu>

## WHAT WAS ACCOMPLISHED?

- Three schools participated in the 2015-2016 school year: Cecil, Borland Manor, and Hills Hendersonville Elementary. Student participation rate was 87%.
  - 1,821 absence events were identified during our study.
  - 276 students were found with Influenza-like Illness (ILI), which is defined as fever > 100°F coupled with a cough or sore throat.
- SMART2 enrolled 165 families from all participating school districts in a family cohort study. Families reported symptoms every week via an electronic reporting system. We found 200 ILI and 31 cases of flu through our cohort families.

## Laboratory Confirmed Influenza

Canon-McMillan	Students	ILI	% ILI**	Flu A	Flu B	Total Flu	% Flu**
Hills Hendersonville Elem	202	101	50%	11	13	24	11.9%
Cecil Elem	205	79	39%	3	8	11	5.4%
Borland Manor Elem	260	96	37%	2	2	4	1.5%
N Strabane Int*				0	2	2	
Total**	667	276	41%	16	25	41	5.8%

\* Found through our Cohort Study \*\* %-age does not include students from N Strabane

## WHAT WAS FOUND?

- SMART<sup>2</sup> has taken the first steps in creating a predictive model for influenza based on surveillance of school absenteeism. This can be used in school health planning, and in response to seasonal and pandemic influenza.
- Increased absenteeism in elementary schools or specific grades may reflect early increases influenza circulation. This could initiate school-based vaccination programs to reduce school and community influenza transmission.
- A preliminary look at data from the Family Cohort Study suggests that there may be statistically verifiable connections between absences at school and influenza at home.
- We continue to recommend annual influenza vaccination for all students, especially elementary students, unless they cannot receive the vaccine for a medical reason.

SMART<sup>2</sup> staff is currently in the process of analyzing this data, and writing reports for the school community and for scholarly publication. SMART<sup>2</sup> is planning to return for the 2016-17 school year to continue this study.

SMART Schools is a partnership of the University of Pittsburgh, Johns Hopkins University, the University of Florida, US Centers for Disease Control and Prevention with Canon-McMillan SD, Washington SD and Fox Chapel Area SD