Pilot Evaluation of Syndrome-Specific School Absenteeism Data for Public Health Surveillance

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OBJECTIVE

This is a pilot evaluation to determine the usefulness of syndrome-specific school absenteeism data for public health surveillance systems.

BACKGROUND

School absenteeism data could be used as an early indicator for disease outbreaks[1, 2]. The increase in absences, however, may be driven by non-sickness related factors. Reason for absence combined with syndrome-specific information might make absenteeism data more useful for early outbreak detection.

METHODS

Ten public elementary schools in Davis County in Utah were selected as sentinel schools to collect syndrome-specific school absenteeism in addition to reason for absence. Reasons for absence include *sick*, *other*, and *unknown*. If the absence was sickness-related, it was further categorized into one of the following groups: *respiratory*, *GI*, *rash*, *other*, and *unknown*. Absenteeism clerks entered daily absences through a web-based district information system, which the county surveillance coordinator has real-time access to. Data from September 1, 2007 to March 14, 2008 were extracted to generate descriptive statistics.

RESULTS

Average daily absence per 100 enrolled students was 4.02 for total absences, and 0.9 for *sick* absences. The most common reason for absence was *unknown* (59%), followed by *sick* (23%) and *other* (18%). *Other* sickness-related absences accounted for 38% of the *sick* absences, followed by *unknown* (26%), *GI* (18%), *respiratory* (16%), and *rash* (0.6%). There was a temporal trend of decreases in GI related absences, and an increase in respiratory absences going from fall to winter (Figure 1).

CONCLUSION

Davis County enhanced school absenteeism data provided timely information on reason for absence at the syndrome level for individual schools, which would be useful for targeted surveillance. Longer follow-up is required to evaluate the impact of non-sickness related factors such as school holidays on reason for absenteeism. Specificity of data could be improved by encouraging reports from parents.
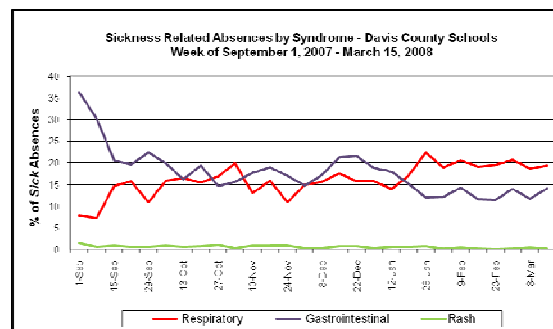
Figure 1. Percentage of sick absences by syndrome.

1. Besculides M, Heffernan R, Mostashari F, Weiss D. Evaluation of school absenteeism data for early outbreak detection, New York City. BMC Public Health. 2005;5:105.
2. Rodriguez D, Zhang G, Leguen F, O'Connell E, Bustamante M. Using Public School Absentee Data to Enhance Syndromic Surveillance in Miami-Dade County, 2007. Advances in Disease Surveillance. 2007;4:188.