
The Role of the School Nurse in Public Health Preparedness

October 24, 2015
Illinois Association of School Nurses
Annual Conference



Promoting A *Safer* and Healthier Community Since 1854

Conflicts of Interest

- There are no conflicts of interest to disclose.

Objectives

Participants will be able to:

- Identify the alignment between the Standards of School Nursing Practice/Standards of Professional Performance for School Nursing and Public Health Accreditation.
- State the role of the local health department in health protection.
- Differentiate between a cluster, outbreak, epidemic, and pandemic.
- State the role of the school nurse in routine and enhanced surveillance activities in their school system.
- Apply concepts of surveillance and notification to the school-age population.



3 Core Functions
10 Essential Services

Vision: Healthy people in a healthy community without health disparities

Public Health Accreditation

- 12 Domains
 - Domain 1: ***Conduct and disseminate assessments*** focused on population health status and public health issues facing the community.
 - Domain 2: ***Investigate health problems and environmental health hazards*** to protect the community.
 - Domain 3: ***Inform and educate*** about public health issues and functions.
 - Domain 4: ***Engage with the community*** to identify and address health problems.
 - Domain 5: Develop ***public health policies and plans***.
 - Domain 6: ***Enforce public health laws***.

Public Health Accreditation

- Domain 7: Promote strategies to improve ***access to health*** care services.
- Domain 8: Maintain a ***competent public health workforce***.
- Domain 9: ***Evaluate*** and ***continuously improve*** health department process, programs, and interventions.
- Domain 10: Contribute to and apply the ***evidence base of public health***.
- Domain 11: Maintain ***administrative and management*** capacity.
- Domain 12: Maintain capacity to engage the public health ***governing entity***.

Standards of School Nursing Practice

- Standard 1: Assessment
- Standard 2: Diagnosis
- Standard 3: Outcomes Identification
- Standard 4: Planning
- Standard 5: Implementation
- Standard 6: Evaluation

Standards of Professional Performance for School Nursing

- Standard 7: Ethics
- Standard 8: Education
- Standard 9: Evidence-Based Practice and Research
- Standard 10: Quality of Practice
- Standard 11: Communication
- Standard 12: Leadership
- Standard 13: Collaboration
- Standard 14: Professional Practice Evaluation
- Standard 15: Resource Utilization
- Standard 16: Environmental Health
- Standard 17: Program Management

Alignment Between School Nursing and Public Health

Dimension	School Nursing	Public Health
Assessment	Standard 1 – Assessment	Domain 1 - Assessment
Diagnosis	Standard 2 – Diagnosis	Domain 2 – Investigate
Focus on outcomes	Standard 3 – Outcomes	Domain 9 – Evaluate
Planning	Standard 4 – Planning	Domain 5 – Policies and Plans
Implementation	Standard 5 – Implementation 5A – Coordination of Care 5B – Health Teaching and Health Promotion 5C – Consultation 5D – Prescriptive Authority and Treatment	Domain 3 – Inform, Education and Empower Domain 4 – Community Engagement Domain 7 – Access to Care Domain 8 – Maintain a Competent Workforce
Evaluation	Standard 6 - Evaluation	Domain 9 – Evaluate

Alignment Between School Nursing and Public Health

Dimension	School Nursing	Public Health
Ethics	Standard 7 – Ethics	Domain 12 – Governance
Education	Standard 8 – Education	Domain 8 – Competent Public Health Workforce
Evidence-based Practice	Standard 9 – Evidence Based Practice and Research	Domain 10 – Evidence-based Practice
Quality	Standard 10 – Quality of Practice	Domain 9 – Continuous Quality Improvement
Communication	Standard 11 – Communication	Domain 3 – Inform, Educate, and Empower
Leadership	Standard 12 – Leadership	Domain 11 – Administration and Management Domain 12 – Governance
Collaboration	Standard 13 - Collaboration	Domain 4 – Community Engagement

Alignment Between School Nursing and Public Health

Dimension	School Nursing	Public Health
Performance Evaluation	Standard 14 – Professional Practice Evaluation	Domain 9 – Competent Workforce
Resource Management	Standard 15 – Resource Utilization	Domain 9 – Competent Workforce Domain 11 – Management and Administrative Capacity
Environmental Health	Standard 16 – Environmental Health	Domain 2 – Investigate Environmental Health Concerns Domain 5 – Public Health Policies and Plans Domain 6 – Enforce public health laws
Program Management	Standard 17 – Program Management	Domain 11 – Management and Administrative Capacity

School Nurse as a Public Health Practitioner

- Alignment of School Nursing Practice and Standards of Professional Performance with Public Health Core Functions and Essential Services (Accreditation Domains).
- Population of interest – school including students, faculty, and staff.
- Practice at all levels
 - Individual
 - Examples of practice
 - Family
 - Examples of practice
 - Community
 - Examples or practice

Role of Public Health in Communicable Disease

- Assessment (Domain 1) = Surveillance Activities
 - Reportable Diseases
 - INEDSS = Illinois National Electronic Disease Surveillance System
 - ESSENCE = Electronic Surveillance System for the Early Notification of Community-based Reporting of Epidemics
 - Laboratory Reporting Systems
 - Mandatory Provider Reporting
 - School Absenteeism Reports
 - Influenza Like Illness (ILI)
 - Gastrointestinal (GI)
 - Other
 - Sentinel Site Reporting
 - Influenza
 - West Nile Virus Vector
 - Community Health Professionals

Reportable Diseases

REPORTABLE DISEASES

REQUIRED BY THE ILLINOIS DEPARTMENT OF PUBLIC HEALTH



Public Health
PREVENT. PROMOTE. PROTECT.

401 Division Street
Rockford, IL 61104
815-720-4000
www.wchd.org



**Winnebago County
Health Department**

Winnebago County healthcare providers and hospitals must report any suspected or confirmed case of these diseases to the Winnebago County Health Department (phone numbers listed below) within the number of hours or days

IMMEDIATE: Within 3 hours call 815-720-4050
After hours call 815-720-4000

- Any suspected bioterrorist threat or event
- Any unusual case or cluster of cases that may indicate a public health hazard (including, but not limited to, glanders, orf, monkeypox, viral hemorrhagic fever)
- Anthrax
- Botulism, foodborne

- Brucellosis (if bioterrorism suspected)
- Plague
- Pollomyelitis
- Q Fever (if bioterrorism suspected)
- Severe Acute Respiratory Syndrome (SARS)
- Smallpox
- Tularemia (if bioterrorism suspected)

24 HOURS: Within 24 hours call 815-720-4050
After hours call 815-720-4000

- Botulism (infant, wound, other)
- Chickenpox (varicella)
- Cholera
- Diphtheria
- Escherichia coli infections (E. coli O157:H7 and other shiga-toxin producing E. coli, enterotoxigenic E. coli, enteropathogenic E. coli and enteroinvasive E. coli)
- Foodborne or waterborne illness
- Haemophilus influenzae (invasive)
- Hantavirus pulmonary syndrome
- Hemolytic uremic syndrome
- Hepatitis A
- Measles
- Mumps
- Neisseria meningitidis, meningitis and invasive disease
- Pertussis (whooping cough)

- Rabies, human
- Rabies, potential human exposure
- Rubella
- Complications of Staphylococcus aureus, methicillin resistant (MRSA) clusters of 2 or more laboratory confirmed cases occurring in community settings, methicillin resistant (MRSA), occurring in infants under 61 days of age
- Streptococcal infections, group A, invasive disease including streptococcal toxic shock syndrome and necrotizing fasciitis) and sequelae to group A streptococcal infections (rheumatic fever and acute glomerulonephritis)
- Tularemia (unless bioterrorism suspected, then immediately)
- Typhoid fever
- Typhus

7 Days: Call 815-720-4050
To Report HIV/STDs call numbers listed above
To Report TB Call: 815-720-4090

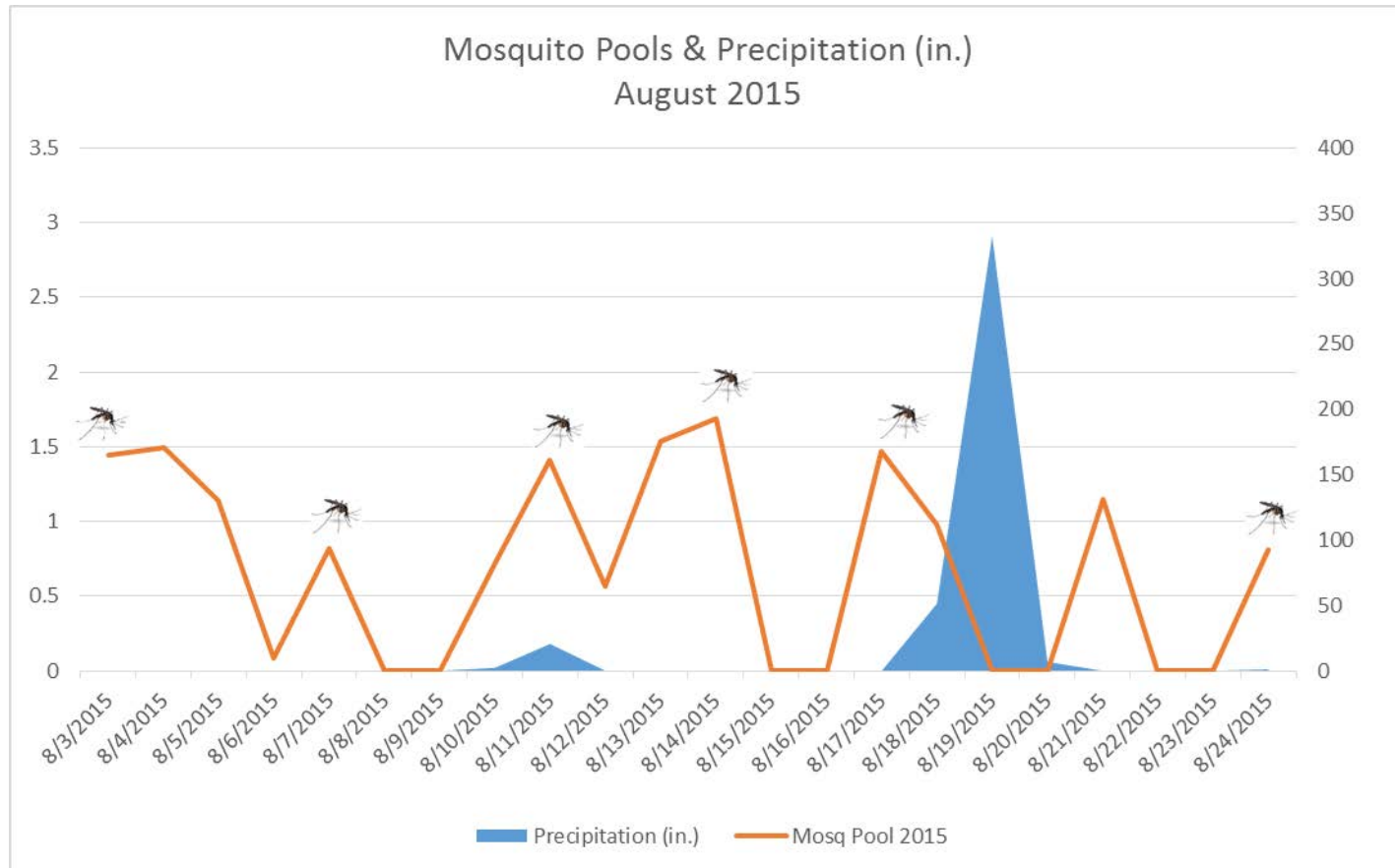
- AIDS
- Arboviral infections (including, but not limited to, West Nile Virus, California Encephalitis, and St. Louis Encephalitis)
- Brucellosis (unless bioterrorism suspected, then immediately)
- Chancroid
- Chlamydia
- Creutzfeldt-Jakob disease (CJD)
- Cryptosporidiosis
- Cyclosporiasis
- Gonorrhea
- Hepatitis B
- Hepatitis C
- Hepatitis D
- Histoplasmosis
- HIV Infection
- Listeriosis

- Malaria
- Ophthalmia neonatorum (gonococcal)
- Psittacosis
- Q fever (unless bioterrorism suspected, then immediately)
- Reye syndrome
- Salmonellosis, other than typhoid fever
- Shigellosis
- Streptococcus pneumoniae, invasive disease in children less than 5 years
- Syphilis
- Tetanus
- Tickborne disease (includes Lyme disease, Ehrlichiosis, anaplasmosis, and Rocky Mountain Spotted fever)
- Toxic shock syndrome due to staphylococcus-aureus
- Trichinosis
- Tuberculosis
- Vibriosis (non-cholera)
- Yersiniosis

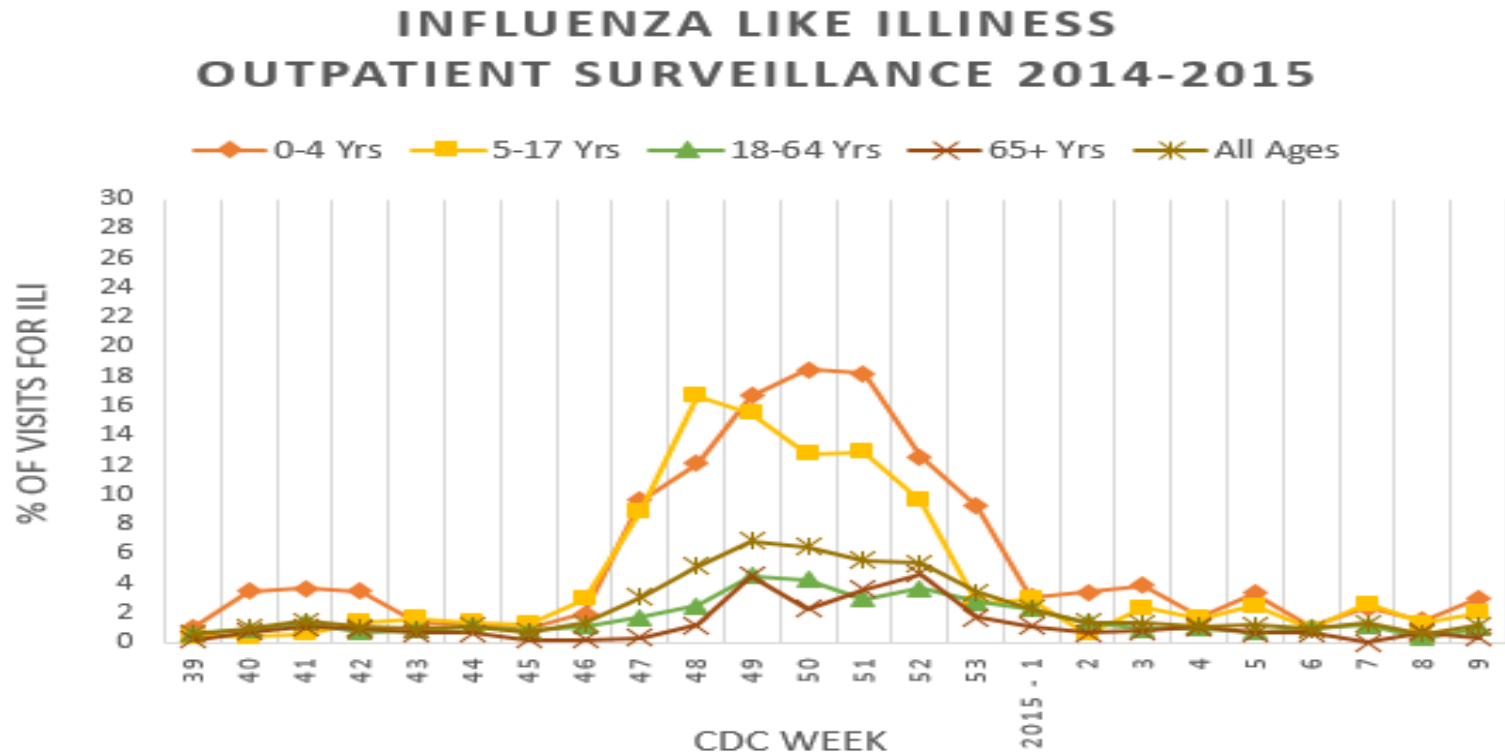


Report to the state Certified Local Health Department for your community.

Sample Surveillance – West Nile Virus

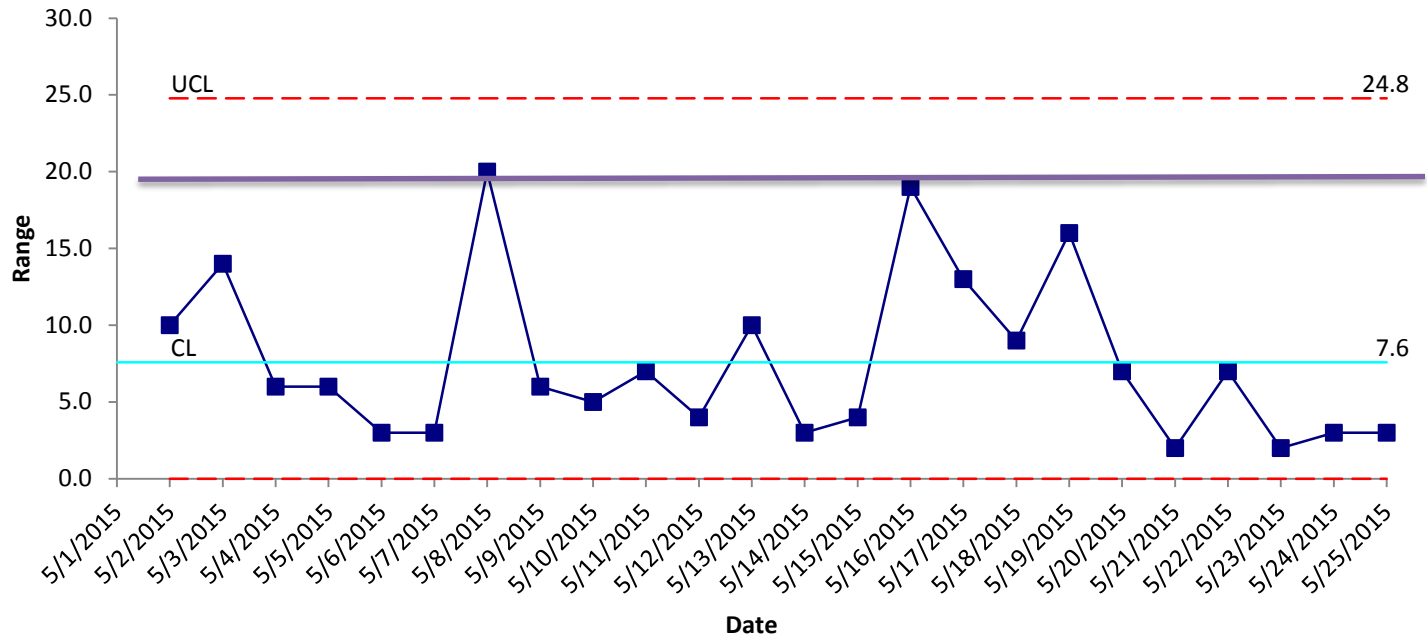


Sample Surveillance from ESSENCE - Influenza

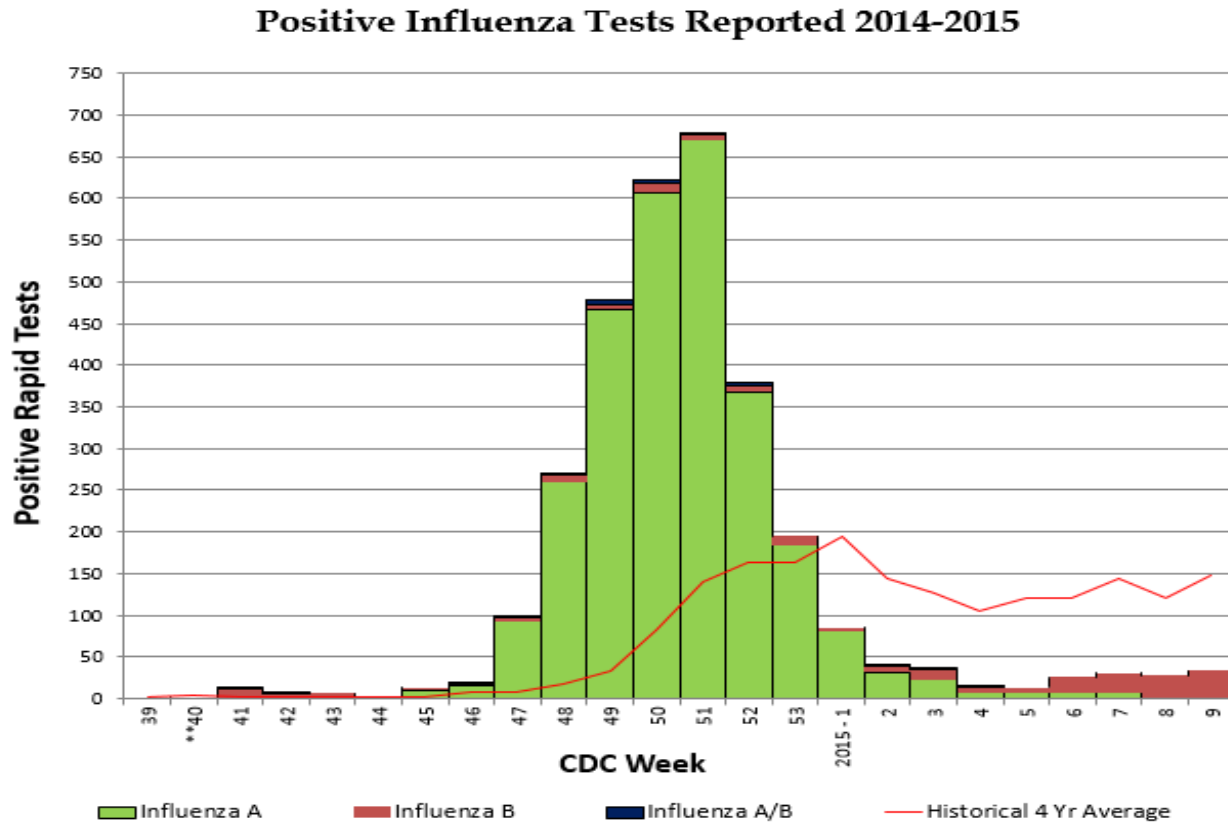


Sample Surveillance Essence – GI Complaint

R Chart - (Range) Essence GI Data



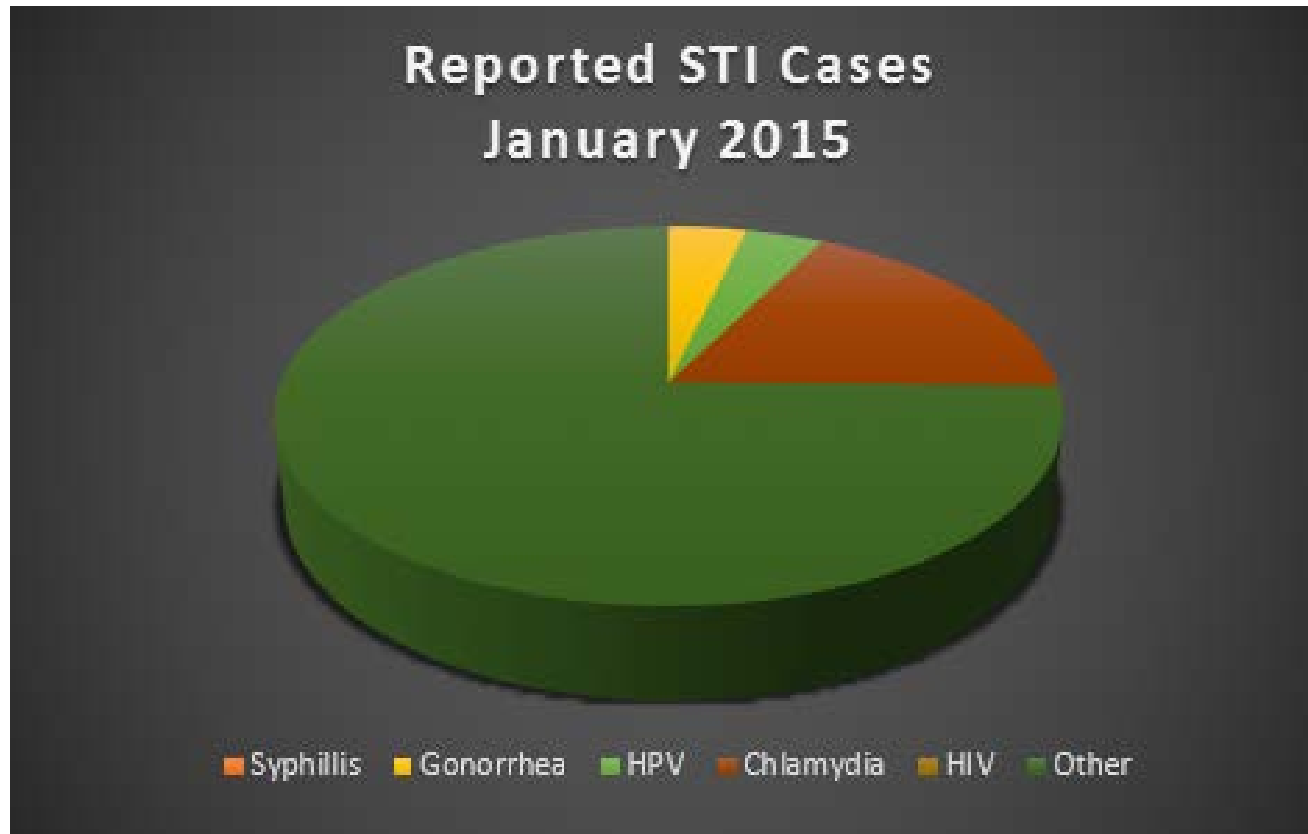
Sample Surveillance Laboratory Testing



Sample Surveillance from Skilled Nursing Facilities - Influenza

CDC Week Number	Outbreak Record #	Number of Residents with ILI Symptoms	Influenza Tests Completed	Number of Positive Tests	Vaccination Rate of Residents Tested	Number of Staff with ILI Symptoms
47	2014-0393	45	38	8	74%	3
48	2014-0442	51	13	8	73%	0
49	2014-0459	39	33	11	82%	24
50	2014-0462	2	2	2	50%	0
50	2014-0529	24	2	2	63%	8
50	2014-0460	18	18	6	56%	0
51	2014-0526	9	3	3	67%	0
51	2014-0533	6	1	1	83%	1
52	2014-0461	13	13	8	85%	5

Sample Surveillance - Laboratory Testing STD/STI




School ILI Reporting

Important to know if
and how
your school participates
in Influenza surveillance

Winnebago County Health Department

Promoting a Safer & Healthier Community Since 1854



WINNEBAGO COUNTY HEALTH DEPARTMENT

[Click here to read the School Absenteeism Frequently Asked Questions.](#)

General Information

Date Reported:

School Information

School District Name:

Name of School:

Student Enrollment:

Total Staff:

Influenza-like illness includes Fever \geq 100°F and Cough and/or Sore Throat, in the absence of a KNOWN cause other than influenza.

Student Absences

Influenza-Like Illness: Other:

Staff Absences

Influenza-Like Illness: Other:

Totals

Students	Staff
Student Absences: <input type="text" value="0"/>	Staff Absences: <input type="text" value="0"/>

http://www.wchd.org/index.php?option=com_sfg&formid=8[9/14/2015 3:13:52 PM]

Epidemiology Definitions

- Cluster

- *A **disease cluster** is an unusually high incidence of a particular disease or disorder occurring in close proximity in terms of both time and geography. Typically, when clusters are recognized, they are reported to public health departments in the local area.*

Retrieved September 21, 2015 from https://en.wikipedia.org/wiki/Disease_cluster.

- Typically involve a relatively uncommon disease
 - e.g. brain cancer, leukemia
- Not due to chance – statistically significant



I have had 4 students from science class in my office this morning with sore throats.

Epidemiology Definitions

- Outbreak

- *An **outbreak** is a sudden increase in occurrences of a disease in a particular time and place. It may affect a small and localized group or impact upon thousands of people across an entire continent. Two linked cases of a rare infectious disease may be sufficient to constitute an outbreak.*

Retrieved September 21, 2015 from <https://en.wikipedia.org/wiki/Outbreak>.

- *An epidemic confined to a local area (Oleckno, 2002)*



Report on over 100 confirmed cases of mumps at the University of Illinois – Champaign Urbana

Retrieved September 21, 2015 from <http://peoriapublicradio.org/post/more-mumps-cases-eiu#stream/0>

Epidemiology Definitions

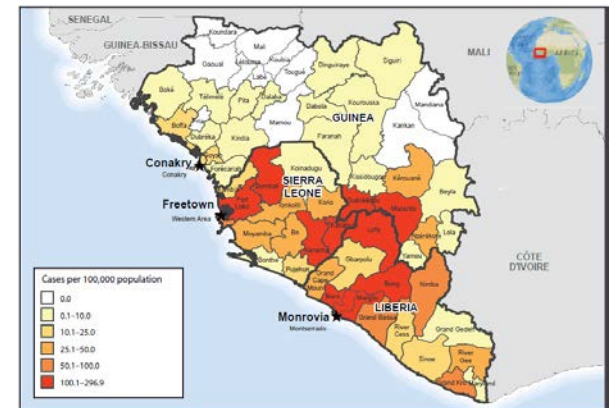
- Epidemic

- ***Epidemic** refers to an increase, often sudden, in the number of cases of a disease above what is normally expected in that population in that area.*

Retrieved September 21, 2015 from <http://www.cdc.gov/opphss/csels/dsepd/ss1978/lesson1/section11.html>

- Causes include:

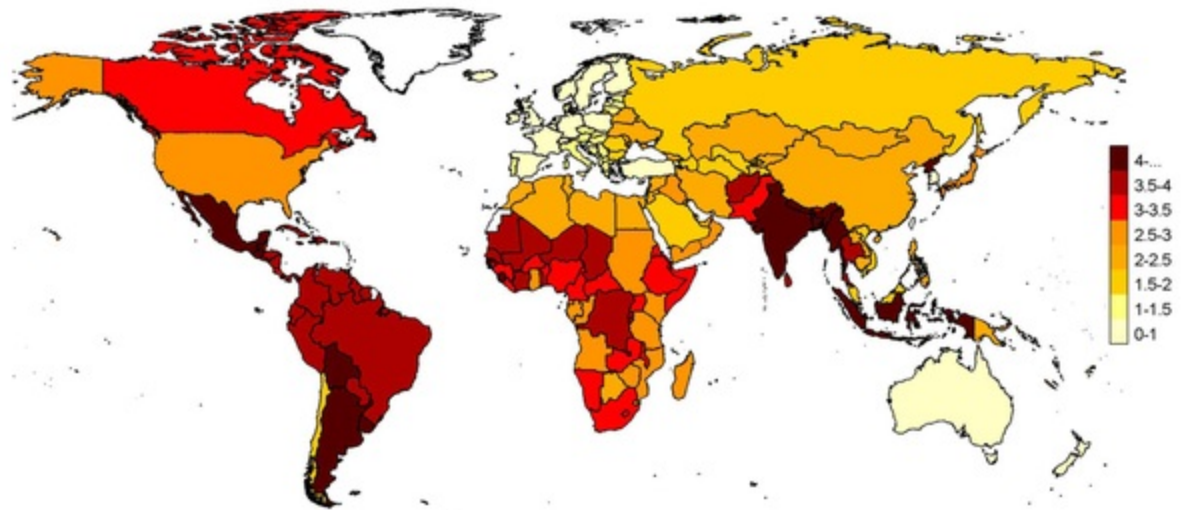
- An increase in the amount or virulence of the agent
- Novel agent
- An enhanced mode of transmission
- A change in the susceptibility of the host
- Factors that increase exposure and/or portals of entry.



Epidemiology Definitions

- Pandemic
 - *Pandemic* refers to an epidemic that has spread over several countries or continents, usually affecting a large number of people.

Retrieved September 21, 2015 from <http://www.cdc.gov/ophss/csels/dsepd/ss1978/lesson1/section11.html>



So.....

- Report any cluster, outbreak, epidemic or pandemic to the local health department.



***Day or Night – 24/7
Your local health department is on call***

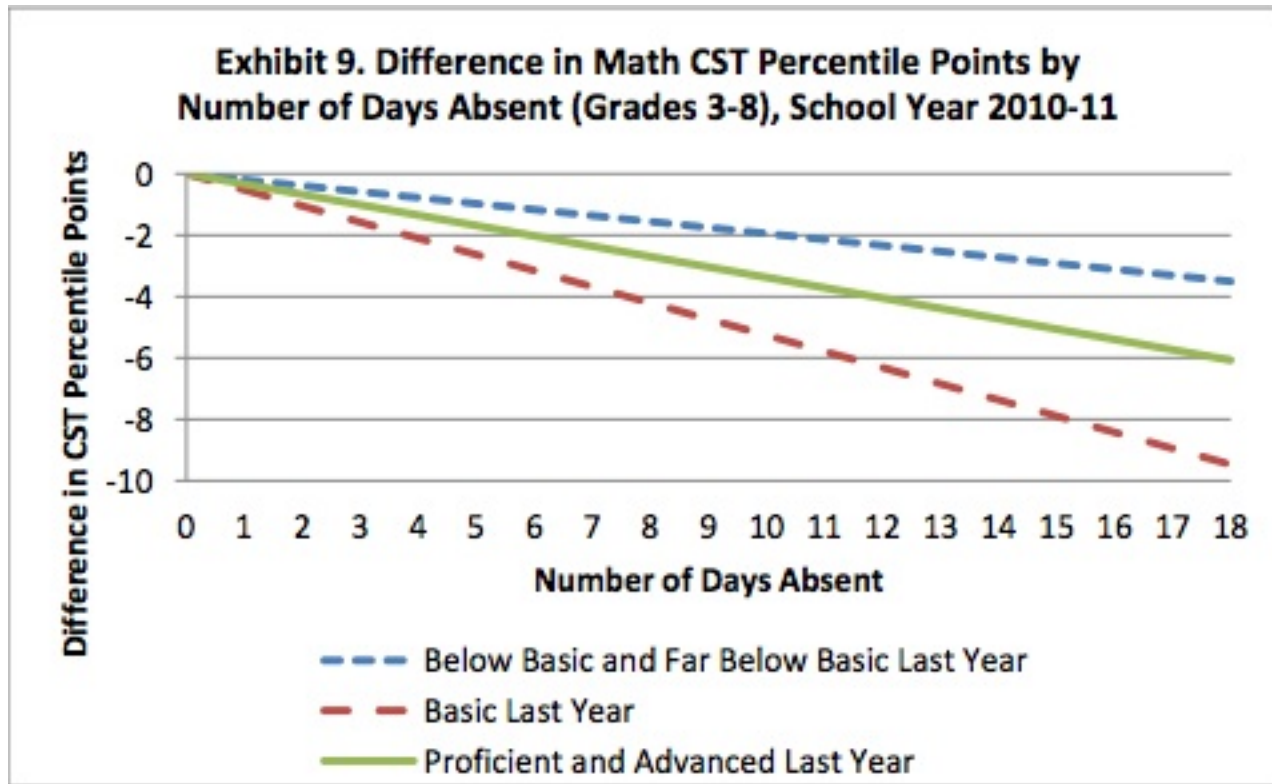


School Nurse Surveillance

- Individual Health Plans (IHP)
- Utilization of School Nurse (Logs, sign-in, etc.)
- Immunization Rates
- Certificate of Child Health Examination
- Occurrence/Accident Reports
- Grade Reports
- Achievement Tests
- Others?

School Nurse Surveillance

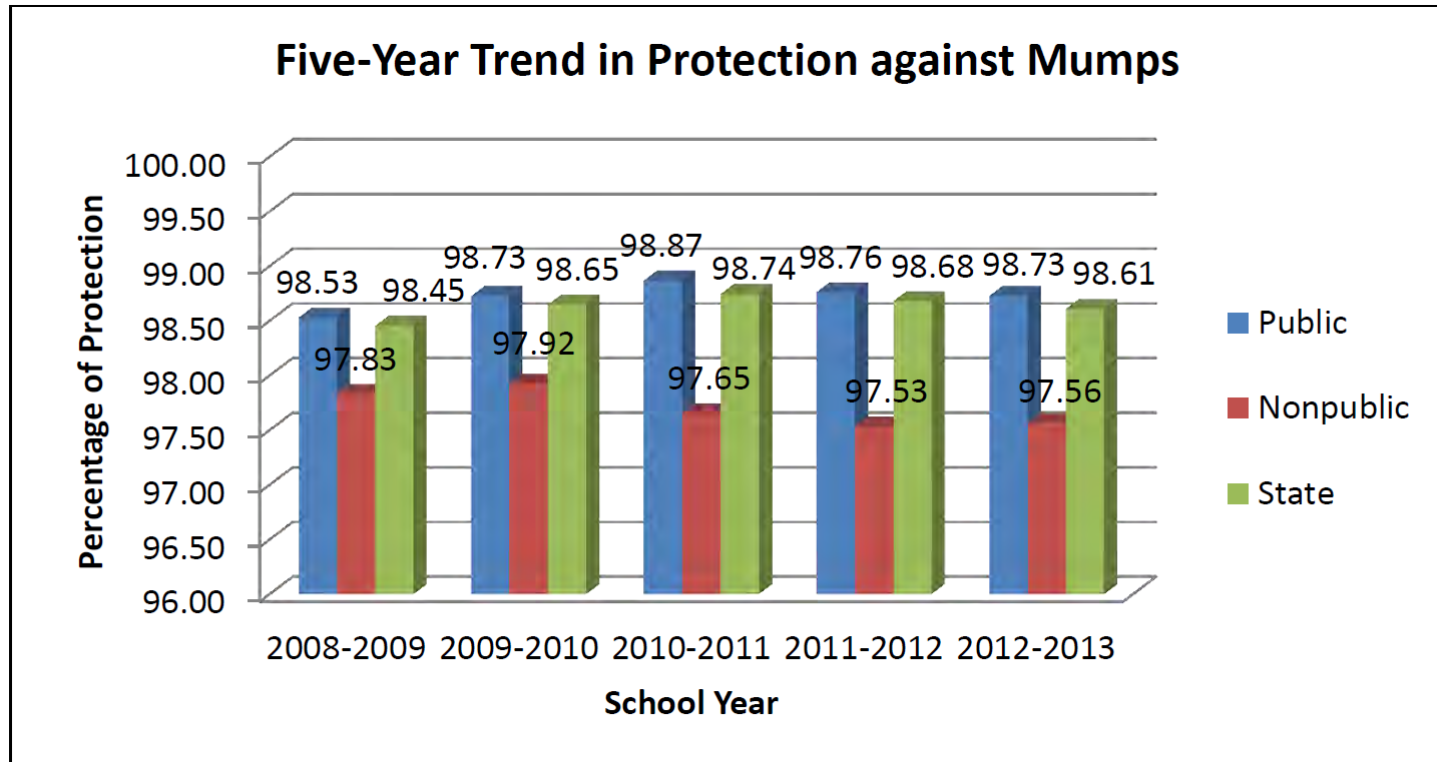
- Attendance Records



Retrieved September 14, 2015 from <http://edsources.org/2013/state-agencies-aim-to-collaborate-to-fight-chronic-absenteeism/32861>

School Nurse Surveillance

- Immunization Records



Retrieved September 16, 2015 from <http://www.isbe.net/research/htmls/immunization.htm#immu>

School Nurse Surveillance Data

- BMI – Obesity Data

2013-14 School year		6th Graders with BMI Value n=1750			
Category	Count RPS Student	/1000	Percent	National	Difference
Healthy weight	902	515.4	51.5%		
Overweight	291	166.3	16.6%	14.9%	1.7%
Obese	502	286.9	28.7%	16.9%	11.8%
Underweight	55	31.4	3.1%		
Unknown	378		0.0%		
Grand Total	2128	1000	100.0%		

School Nurse Surveillance Data

- BMI – Obesity Data

2014-15 School Year		6th Graders with BMI Value n=1556			
Category	Count RPS Student	/1000	Percent	National	Difference
Healthy weight	779	500.6	50.1%		
Overweight	269	172.9	17.3%	16.9%	0.4%
Obese	435	279.6	28.0%	14.9%	13.1%
Under weight	73	46.9	4.7%		
Unknown	405				
Grand Total	1961	1000.0	100.0%		

Evidence

[Am J Public Health](#). 2014 Jan;104(1):e50-6. doi: 10.2105/AJPH.2013.301411. Epub 2013 Nov 14.

Description of a school nurse visit syndromic surveillance system and comparison to emergency department visits, New York City.

[Wilson EL](#)¹, [Egger JR](#), [Konty KJ](#), [Paladini M](#), [Weiss D](#), [Nguyen TQ](#).

Author information

¹Elisha L. Wilson, Marc Paladini, Don Weiss, and Trang Q. Nguyen are with the Bureau of Communicable Disease, New York City Department of Health and Mental Hygiene, Queens, NY. Joseph R. Egger and Kevin J. Konty are with the Bureau of Epidemiology Services, New York City Department of Health and Mental Hygiene.

Abstract

OBJECTIVES: We compared school nurse visit syndromic surveillance system data to emergency department (ED) visit data for monitoring illness in New York City schoolchildren.

METHODS: School nurse visit data recorded in an electronic health record system are used to conduct daily surveillance of influenza-like illness, fever-flu, allergy, asthma, diarrhea, and vomiting syndromes. We calculated correlation coefficients to compare the percentage of syndrome visits to the school nurse and ED for children aged 5 to 14 years, from September 2006 to June 2011.

RESULTS: Trends in influenza-like illness correlated significantly (correlation coefficient = 0.89; $P < .001$) and 72% of school signals occurred on days that ED signaled. Trends in allergy (correlation coefficient = 0.73; $P < .001$) and asthma (correlation coefficient = 0.56; $P < .001$) also correlated and school signals overlapped with ED signals on 95% and 51% of days, respectively. Substantial daily variation in diarrhea and vomiting visits limited our ability to make comparisons.

CONCLUSIONS: Compared with ED syndromic surveillance, the school nurse system identified similar trends in influenza-like illness, allergy, and asthma syndromes. Public health practitioners without school-based surveillance may be able to use age-specific analyses of ED syndromic surveillance data to monitor illness in schoolchildren.

PMID: 24228684 [PubMed - indexed for MEDLINE]

School Health: A Novel School Nurse Clinic Surveillance Project in Coastal Georgia

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Objective

This project was designed to demonstrate the feasibility of school-based nurse clinic visit syndromic surveillance. Additional objectives include using clinic visit data to identify opportunities for health interventions at participating schools and to characterize the type and number of student visits to the school nurses. An electronic module was developed in the State Electronic Notifiable Disease Surveillance System (SendSS) to facilitate data entry by participating school nurses and data management by the Georgia Department of Public Health.

Introduction

The Syndromic Surveillance Program (SSP) of the Georgia Department of Public Health collects chief complaint data from hospitals to characterize health trends in near real time. These data were critical for situational awareness during the 2009 H1N1 pandemic. In 2012, SSP and the Effingham County Schools began a project to collect syndromic surveillance data from school clinics. The hypothesis was that these data may be used to inform interventions during a pandemic, guide school health programs, elucidate health priorities in school-age populations, and quantify nursing staff needs in schools. Analysis of data from the first two pilot years has provided a novel look at the disparate burden of disease among students across schools in the county.

Methods

Every day during the 2012-2013 and 2013-2014 school years, 12 nurses from 12 schools in Effingham County entered data into a web-based module for clinic visits that met the following syndromic definitions: Influenza-Like Illness, Rash/Fever, Gastrointestinal, Injury, Asthma, Diabetes, and Total Daily Visits. At the end of the 2012-2013 school year, the school nurses were asked to review the syndromes. As a result, "Asthma" and "Diabetes" were modified to include "Acute Asthma" and "Acute Diabetes" counts. These new categories captured urgent visits while "Asthma" and "Diabetes" captured routine management. Additionally, "Oral Health" and "Mental Health" were added to the syndrome list. Given the modification of syndromes, for this abstract, only data from the 2013-2014 school year were analyzed using Microsoft Excel and SAS.

Results

During the 2013-2014 school year, Effingham County school nurses provided care for 79,906 total student visits; 24,301 (30.4%) met at least one of the syndrome case definitions. Injury (6,469, 26.6%) was the most common chief complaint, followed by diabetes management (4,477, 18.4%). Visits for asthma ranged from 10.6% of surveillance related visits in Elementary Schools to 2.5% of visits in High Schools. The proportion of visits related to asthma varied from 0.1% at one elementary school to 18.8% at another elementary school. Similarly, one middle school reported 21.3% of visits were related to

diabetes, while the other two middle schools had less than 2% of visits related to diabetes.

Conclusions

This project demonstrated that school clinics are a significant resource for primary healthcare among school-aged children and that clinic syndromic surveillance is valuable for preparedness and education programs. Baseline burdens of both infectious and chronic diseases may be established, which can be used to identify trends or outbreaks in the future. These data also show that priority targets for school and community programs include injury prevention, asthma, and diabetes control. Evidence of poor chronic disease management among some students provided an opportunity for collaboration with chronic disease programs at DPH, perhaps leading to future funding for school-based intervention programs. Further analysis will be done to look at environmental factors and socioeconomic status of each school's population to determine the possible effect on disease burden and management of chronic disease. This information may be used to inform decisions for school inclusion in intervention programs.

Keywords

School Health; Syndromic Surveillance; State and Local Collaboration; Novel surveillance system; Student Health Surveillance

Acknowledgments

We would like to thank the school nurses and Marsha Cornell of Effingham County for their dedication and contribution to the success of this project.

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Conclusions

This project demonstrated that school clinics are a significant resource for primary healthcare among school-aged children and that clinic syndromic surveillance is valuable for preparedness and education programs. Baseline burdens of both infectious and chronic diseases may be established, which can be used to identify trends or outbreaks in the future.



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Online Journal of Public Health Informatics * ISSN 1947-2579 * <http://ojphi.org> * 7(1):e128, 2015

Evidence

Conclusions

The system (ESSENCE) has shown potential, if used with other biosurveillance systems and data, to help public health monitor community health trends and respond to findings in a focused partnership with schools. As participation grows, the system will be increasingly useful for both its current and future applications.

North Texas School Health Surveillance: First-Year Progress and Next Steps

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¹University of North Texas Health Science Center, School of Public Health (Fort Worth, TX)
²Southwest Center for Advanced Public Health Practice (Fort Worth, TX)

Objective

This oral presentation will share key findings and next steps following the first year of a pilot project in which Tarrant County, Texas schools used a Web-based system to share their daily health data with Tarrant County Public Health (TCPH) epidemiologists, who can use ESSENCE¹ to analyze the data. The project's ongoing goal is to reduce the magnitude of flu outbreaks by focusing on school-aged children and youth, where infectious diseases often emerge first and spread rapidly.²

Background

Recognizing the threat of pandemic influenza and new or emerging disease such as SARS, the U.S. Department of Health and Human Services has recommended that schools work in partnership with their local health departments "to develop a surveillance system that would alert the local health department to substantial increases in absenteeism among students."³ Tarrant County's pilot project system meets that need and transcends absenteeism data; it seeks to quantify ILI in schools and lets school nurses view daily maps of changing disease patterns, access flu prevention resources, and receive and respond to action items suggested by TCPH.

While the focus is on seasonal flu, best practices for mitigating seasonal flu also apply to pandemic flu. Because the system uses open source software⁴, it's affordable and replicable for other public health agencies seeking to strengthen their school partnerships as well as their local or regional biosurveillance capabilities.

Methods

The evaluation report that is the basis for this presentation⁵ follows guidance from the Centers for Disease Control and Prevention (CDC) on evaluating public health surveillance systems⁶ to evaluate operational aspects of the system and also reflects "key informant" interviews.

Results

The Web-based communications portal was found to be a viable way to collect school health data in a

rapid, automated manner. More than 200 school nurses in seven of Tarrant County's 16 Independent School Districts (ISDs) were trained to use a system that let them share data via an online report form they could complete in less than five minutes.

Based on the program's first-year success, the system is being expanded regionally, covering three of the four largest counties in the Dallas-Fort Worth area, while work continues to engage more Tarrant County schools in sharing health data. School-based health clinics and child care centers are being approached to participate, too. Finally, plans call for broadening the system to address diseases other than flu.

Conclusions

The system has shown potential, if used with other biosurveillance systems and data, to help public health monitor community health trends and respond to findings in a focused partnership with schools. As participation grows, the system will be increasingly useful for both its current and future applications.

References

1. Learn more about the Electronic Surveillance System for the Early Notification of Community-based Epidemics, developed by the John Hopkins APL, at: <http://essence.jhuapl.edu/ESSENCE/>.
2. CDC. Prevention and Control of Influenza: Recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR*. 2003;52 (No.RR-8):1-34
3. HHS. School District (K-12) Pandemic Influenza Planning Checklist. www.pandemicflu.gov/plan/school/schoolchecklist.html.
4. For information about DotNetNuke or to download the software, visit www.dotnetnuke.com.
5. Powell T. Tarrant County School Health Surveillance Project, First Year Evaluation Report, 5-31-08. Accessible at: www.texasapc.net/Portals/0/Surveillance/Schools/TCSHSS_Evaluation_Report.pdf.
6. CDC. Guidelines for Evaluating Public Health Surveillance Systems. *MMWR Supplements*. May 6, 1988. 37(S-5); 1-18.

Case Study

Note: All school names have been changed.

- August 28 – Ridgemont High Football team plays Metro High Football Team.
- September 10 – 4 student football players (Ridgemont High) present to School Nurse (SN) for suspected impetigo.
 - SN sends remaining 20 football players home with note to be evaluated by primary care provider (PCP).
 - All 20 football players return next day (September 11) with required follow-up from PCP.
 - SN works with janitors to sanitize desks, weight, and locker rooms used by football players.
- September 11 – Ridgemont High Football Team plays Central High Football team.
- September 12 – 5 student football players from Central High are diagnosed with impetigo.

Case Study - continued

- September 18 – Local county health department receives call from a concerned parent from Ridgemont High regarding “outbreak” of impetigo in their school. Local media also calls regarding impetigo.
- September 21 – Illinois Department of Public Health sends out alert to school nurses.
 - SN from Ridgemont High reports a total of 30 students infected.
- September 22 – Media reports on total of 12 infected students at Central High School and references infection control efforts being taken at Metro High School.

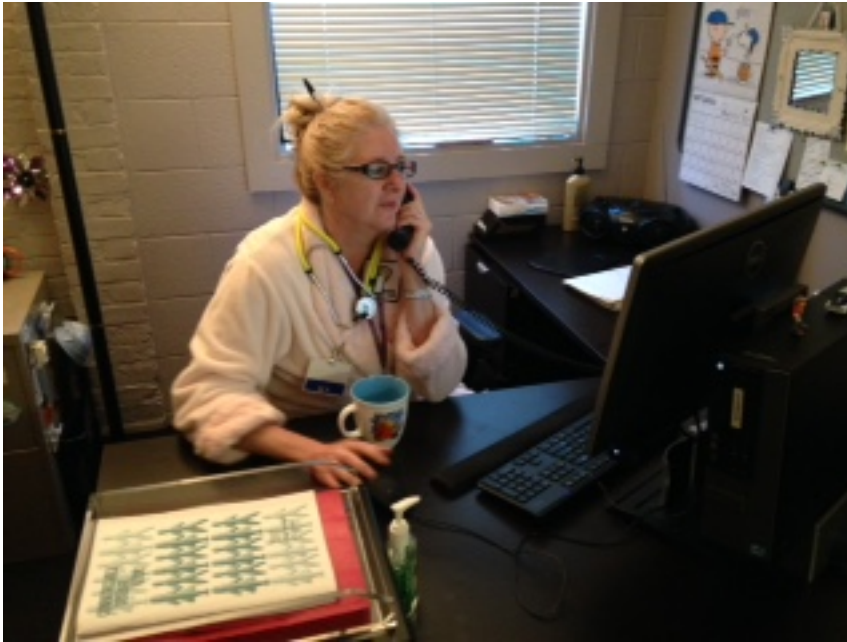
Case Study - continued

- Considerations
 - Impetigo is not a “reportable” communicable disease.
 - Mode of transmission: contact with infected lesions
 - Causative agents:
 - Staphylococcus aureus
 - Streptococcus pyogenes
 - Incubation period:
 - Staphylococcus aureus: 4 – 10 days
 - Streptococcus pyogenes: 1 – 2 days
 - Treatment: oral or topical antibiotics; covering of lesions

Case Study – AAR/Improvement Plan

- Strengths – what went well
 - Surveillance by SN
 - Management of impacted students
 - Early identification of potential
 - Early notification for prevention
 - Sanitation of environment for prevention
 - Others????
- Opportunities for Improvement – what could have been done better
 - No contact to local health department
 - No notification to other schools
 - No overall management of media
 - Others????

Closing Thoughts



Your local health department is there to **partner** with your school to protect the public's health through:

- Surveillance
- Guidance
 - Management of illness
 - Prevention of additional cases
- Communication
 - Students and parents
 - Faculty and staff
 - Media
- Education
- Follow-up



Public Health
Prevent. Promote. Protect.

Questions and Comments

Thank you for your contribution to public health through your work in the schools!

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