



The A.C.D. Quarterly

PHILADELPHIA DEPARTMENT OF PUBLIC HEALTH

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Acute Communicable Diseases: Who We Are

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The purpose of the Acute Communicable Disease (ACD) program is to protect and educate the residents of Philadelphia by controlling the spread of infectious disease. To achieve these goals the ACD team investigates cases to better understand how and why individuals are becoming sick. ACD performs surveillance, whereby systematic data collection, analysis and data interpretation help us monitor community health. ACD also provides education on diseases, and materials on infection control. The staff consists of a CDC Career Epidemiologist Field Officer who oversees the

daily activities of ACD, Disease Surveillance Coordinators that focus on enteric disease, vaccine preventable diseases, and zoonotic diseases and disease surveillance investigators, whom conduct field work and actively investigate reportable diseases. There are respectively two program assistants who oversee departmental communications and community outreach efforts and two epidemiology support persons who monitor incoming disease data and findings.

Turn the page to find the list of reportable diseases and who to contact in order to report.

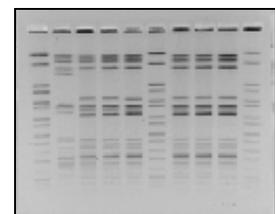
Seasonal Spotlight: Food Borne Disease Reporting and Tools

The summer season brings with it an increase of certain infectious diseases and a decrease in others. In Philadelphia flu and pertussis make way for new cases of West Nile Virus and Lyme Disease. Another summer threat is food-borne illnesses, such as *Salmonella* and *E coli*. The *E coli* O104:H4 outbreak in Europe this spring was a morbid reminder of the worldwide impact that foodborne bacteria can have. Germany's Robert Koch Institute reported 852 patients with hemolytic uremic syndrome- a type of kidney failure that is associated with Shiga toxin-producing *E. coli* or STEC infections- and 32 deaths associated with HUS. In the United States, 6 confirmed cases of STEC O104:H4 have been identified. One death has been reported.

This serves as an example of what we at the Philadelphia Health Department hope to avoid, yet it also highlights the vital role that public health departments must play in the face of a public health emergency. In Acute Communicable Diseases (ACD) we have a team of staff dedicated to the surveillance of foodborne and waterborne diseases. An epidemiologist, along with a team of staff investigates incidents related to any suspected food or waterborne diseases. There are several steps that occur before an investigation can take place. This is an example of a best case scenario:

Person becomes ill → Person seeks medical treatment promptly → Health care provider gets a stool culture and it is sent to lab → Positive lab results on reportable illnesses get reported to health department in a timely manner → Health department can start investigation

Figure 1: PFGE Result



Unfortunately, when we don't receive a sample specimen it is difficult to be made aware of, and we are unable to investigate a case. When there is a sample that can be observed, one of the tools that ACD uses to identify strains of bacteria is called pulsed field gel electrophoresis (PFGE). This is a technique used for the separation of large DNA molecules by applying an electric field that periodically changes direction to a gel matrix. This creates a pattern that is a molecular fingerprint of a specific type of bacteria strain. Each bacteria has their own unique PFGE pattern, and differentiating patterns from one another is crucial to their identification. Our membership with PulseNet allows us to perform such comparisons. PulseNet is a national network of public health agencies, coordinated by the CDC, which houses a virtual library of PFGE patterns submitted electronically from around the country. The database is available to us on-demand, making it possible to perform rapid comparisons of PFGE patterns. If identical pattern groups can be identified this information can be used to detect clusters or outbreaks of illness across a city, state or the entire country.

Flu Trends in Philadelphia 2010-2011

The influenza season came and went, though as one season ends, preparation for the next begins. The 2010-2011 season focused on mass vaccination and decreasing the spread of the virus. Through extensive public health campaigning, working with a variety of organizations and using resources throughout the City, tens of thousands of people were vaccinated; thus decreasing the spread of influenza.

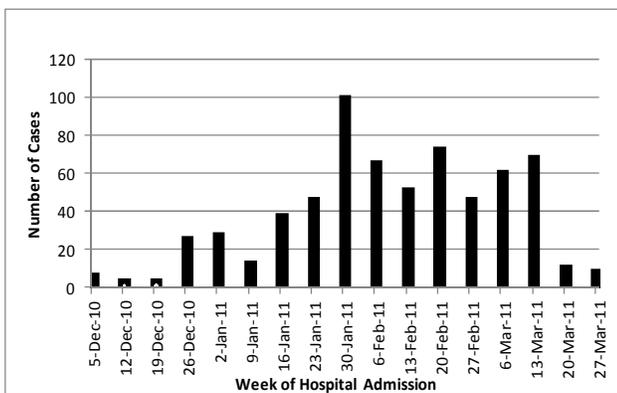
The 2010-2011 season saw 614 cases of reported cases of influenza; these were only individuals who were hospitalized. The pie graph below shows that the primary age range, which was affected by the virus was within the 0-4-age range; although the distribution of cases was relatively similar amongst all age groups. There were ten influenza-associated deaths recorded in the City of Philadelphia and 13 long-term care facilities outbreaks.

The State of Pennsylvania saw a total of 1,569 hospitalized cases of influenza during this season and 88 influenza related deaths.

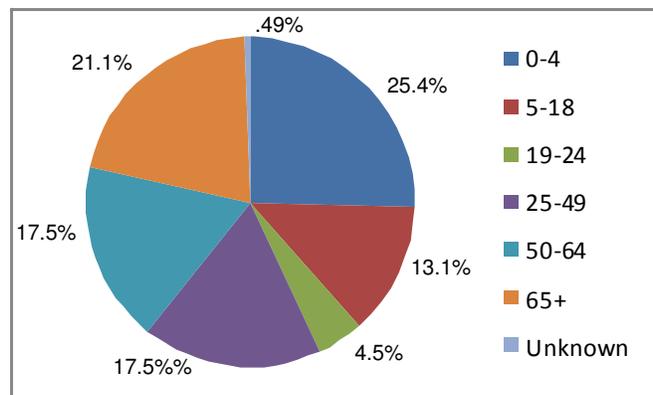
The City of Philadelphia has created an online questionnaire to determine the effectiveness of the weekly influenza report. Please take a moment and fill out this survey, which will allow us to create better materials tailored to the needs of our readers! Thank you.

www.surveymonkey.com/influenza2010-2011

Hospitalized Influenza Cases by Week of Admission (December 2010 - April 2011)



2010-2011 H1N1 Hospitalized Cases by Age Group



Disease Reporting in Philadelphia County

Disease reporting in Philadelphia is an important service that public health agencies and health care providers conduct to assure the health of the public in emergencies and non-emergencies. Timely reporting to the Philadelphia Department of Public Health (PDPH) of a suspected or confirmed communicable disease enables PDPH to identify the case, conduct an investigation, and prevent the spread of infectious disease to the public. In addition, disease reporting allows the health department to identify trends among diseases occurring within Philadelphia County.

In Philadelphia there are 65 diseases and conditions that are reportable to PDPH. Any unusual disease clusters or outbreaks should be reported immediately to PDPH's Acute Communicable

Disease Department (ACD) at 215-685-6748.

In many situations, health care providers are often the first to see an unusual disease or occurrence. Therefore, it is important for providers to recognize and report conditions that may have a significant impact on the community. PDPH not only collects information on reportable diseases, but is also available to provide guidance on treatment, testing, prophylaxis, and education for vulnerable populations.

For more questions regarding disease reporting call ACD at 215-685-6741. More information for specific program departments can be found on the following website: www.phila.gov/health/

PHILADELPHIA DEPARTMENT OF PUBLIC HEALTH DIVISION OF DISEASE CONTROL (DDC)

Report: 215-685-6748

Fax: 215-238-6947

For after hours immediate reporting & consultation: 215-686-4514 – ask for Division of Disease Control on-call staff

REPORTABLE DISEASES AND CONDITIONS

Acquired Immune Deficiency Syndrome (AIDS/HIV) ‡	Listeriosis *
Amebiasis	Lyme disease
Animal bites (wild/stray/domestic)	Malaria
Anthrax *	Measles (rubeola) *
Botulism *	Meningitis - all types
Brucellosis *	Meningococcal infections *
Campylobacteriosis	Mumps
<i>Chlamydia trachomatis</i> including lymphogranuloma venereum (LGV)	Pelvic inflammatory disease
Chancroid	Pertussis (whooping cough)
Cholera *	Plague *
Creutzfeldt-Jakob disease	Poliomyelitis *
Cryptosporidiosis	Psittacosis (ornithosis)
Cyclosporiasis	Rabies *
Diphtheria *	Rickettsial diseases
Ehrlichiosis	Rubella (German Measles) & Congenital Rubella *
Encephalitis including all arboviruses *	Severe Acute Respiratory Syndrome (SARS) *
<i>Escherichia coli</i> O157:H7 *	Salmonellosis
Food poisoning *	Shigellosis
Giardiasis	Smallpox *
Gonococcal infections	<i>Staphylococcus aureus</i> , vancomycin insensitive
Guillain-Barré syndrome	Streptococcal disease, invasive group A
<i>Haemophilus influenzae</i> , invasive disease *	<i>Streptococcus pneumoniae</i> , invasive disease
Hantavirus Pulmonary Syndrome *	Syphilis
Hepatitis A	Tetanus
Hepatitis B	Toxic Shock Syndrome
Hepatitis C	Trichinosis
Hepatitis, other viral	Tuberculosis §
Histoplasmosis	Tularemia *
Influenza – pediatric mortality and institutional outbreaks	Typhoid (<i>Salmonella typhi</i> and <i>paratyphi</i>) *
Lead poisoning	West Nile Virus *
Legionnaires' disease *	Varicella, including zoster
Leprosy (Hansen's disease)	Yellow Fever and other viral hemorrhagic fevers *
Leptospirosis (Weil's disease)	

* Report suspected and confirmed cases within 24 hours

‡ Report to AIDS Activities Coordinating Office at 215-685-4781

All other cases should be reported within 5 days

§ Report to TB Control Program at 215-685-6744 or -6873

All unusual disease clusters, disease outbreaks, and unusual disease occurrences should be reported immediately

To Report a Case Call, Fax or Submit through NEDSS the Following Information to DDC:

Condition | Patient Name, Age/DOB, Sex, Address & Phone | Clinician Name, Address & Phone

PDPH Offers Free In-Service Presentations to Providers

The Philadelphia Department of Public Health, Division of Disease Control has developed an infection control in-service presentation for provider practices. We would like to come to your practice to briefly review standard precautions, reportable diseases and disease reporting procedures with your providers and administrative staff. Our presentation is 30-minutes or less and we could present during office meetings, lunch breaks or before clinic time. If you are interested in an in-service at your practice, please contact Alanna Butler at 215-685-6750 or email alanna.butler@phila.gov

Thank you for your continued support of our disease surveillance and control efforts.



Be Informed: Join the Philadelphia Health Alert Network

The Philadelphia Department of Public Health (PDPH) invites Philadelphia-area physicians to subscribe to the Health Alert Network (HAN). The HAN is a system that lets you receive email and/or fax messages about critical, time-sensitive public health information on emerging health threats, new PDPH guidance and ongoing disease outbreaks. All contact information collected is confidential and is used for the HAN only. Visit hip.phila.gov to learn more about the HAN, current disease surveillance and disease reporting.

To begin receiving health alert messages, email hip@phila.gov or call 215-685-6783



Philadelphia Department of Public Health's Quarterly Acute Communicable Disease Update

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Department Listings for the Division of Disease Control

- Acute Communicable Disease
- Bioterrorism & Public Health Preparedness
- Epidemiology
- Immunization
- Sexually Transmitted Disease Control
- Tuberculosis Control
- Data & Records

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