

Immunization Grant Surveillance Indicator Mid-Year Progress Report - 2012

The Centers for Disease Control and Prevention (CDC)-funded Immunization and Vaccines for Children Grant provides goals for vaccine-preventable disease (VPD) surveillance for the state of West Virginia. CDC requests a mid-year and end-of-year report on our progress on the surveillance Objectives and Performance Measures listed in Appendix A. Two of the three Performance Measures address the timeliness of submission and data completeness, based on surveillance indicators. The purpose of vaccine-preventable disease surveillance indicators in the United States is to ensure adequate performance of the essential components of surveillance and case investigation, and to identify components of each that need improvement¹, which is why it is so important to complete as much information as possible when investigating VPDs. This document contains the results of the 2012 mid-year progress report.

From January 1 – June 30, 2012, we have not done as well as in our reporting efforts as we did during 2011. We have met 12/16 individual surveillance indicator targets (see Appendix A for list), as opposed to 14/16 during January 1 – December 31, 2011. Targets we have missed during the first half of 2012 include:

- 3/4 meningococcal (**75%** as opposed to the target of **90%**) cases had complete vaccination history
- 3/4 meningococcal (**75%** as opposed to the target of **90%**) cases had known serogroup
- 1/2 mumps patients had complete vaccine history (**50%** as opposed to the target of **90%**)
- 6/9 invasive pneumococcal disease cases had serotyping and resistance testing done (**67%** as opposed to the target of **80%**)

CDC also requests that **70%** of certain VPD cases be submitted with complete surveillance indicator information within one month of diagnosis. This target has been lowered in 2012 from 90% during previous years due to anticipated issues with the new WVEDSS. Even so, we did not meet this goal in the first half of 2012.

- 32/57 (**56%**) of VPDs monitored by CDC for the Immunization grant had complete surveillance indicator information
- 12/57 (**21%**) were submitted to CDC within one month of diagnosis
- 5/57 (**8.8%**) were submitted with complete information within one month of diagnosis

Missing surveillance indicator information is outlined in the tables at the end of this document. While the transition to the new WVEDSS system is largely responsible for the delay in reporting to CDC, it should not have a large impact on our ability to submit complete information about VPDs to the CDC.

While no single surveillance indicator stands out as the cause of incomplete data, West Virginia has a relatively low incidence rate of VPDs and small numbers of missing surveillance indicators add up over time and lower our data completion rate. Please see the next page for some tips on increasing our surveillance indicator completion rate in the future.

¹ Centers for Disease Control and Prevention. Manual for the surveillance of vaccine-preventable diseases. Centers for Disease Control and Prevention, Atlanta, GA, 2008.

Tips for Improving Data Completeness

Race and Ethnicity

- Asking cases (or their parent/guardian) to identify race and ethnicity during the interview process. Most people will not be offended by these questions. However, if someone asks why you need that information, explain that CDC uses it to identify groups who are at higher risk for disease so appropriate prevention efforts can be made. It is better to ask and have a case refuse to answer than leave it blank because you did not want to offend someone. If you are concerned that asking for this information may jeopardize your ability to complete your interview, ask these questions last.
- Some people may not know what you're talking about if you ask them what their "ethnicity" is. You can simplify this question by asking whether or not they are Hispanic. There are many more ethnicities in simply "Hispanic or Latino" or not, but CDC is interested in this distinction since Hispanic and non-Hispanic Caucasians have different risks for different conditions.

Outbreak Information

- If there is no identified outbreak occurring in your county/region at the time, do not mark "Unknown" to reflect the fact that an outbreak may exist. If an outbreak situation evolves, it is very easy to go back in and change a "NO" response to a "YES".

Epi-linked Cases

- If a case (or their parent/guardian) cannot identify another epi-linked case, do not mark "Unknown" to reflect the fact that one must exist somewhere. With the exception of tetanus and influenza, VPDs are human diseases and are contracted from another person in some manner. This question refers to known individuals from whom the case may have contracted their disease.

Vaccine History

- Use available resources to obtain vaccination records for cases. If the information is not available in WVSIIS, these records may be obtained from a case's physician and/or school records. The state VPD epidemiologist is happy to assist in the effort to find vaccination records for VPD cases and can be reached at 304-558-5358.

If you have problems obtaining records on laboratory testing performed in another state, the VPD epidemiologist may be able to help and can be reached at 304-558-5358.

A list of surveillance indicators for selected VPDs likely to be seen in West Virginia can be found on the Division of Infectious Disease Epidemiology's Vaccine-Preventable Disease webpage at:

http://www.dhhr.wv.gov/oeps/disease/IBD_VPD/VPD/Documents/Surveillance%20Indicators%20for%200Selected%20Vaccine-Preventable%20Diseases.pdf and in the CDC's "Manual for the Surveillance of Vaccine-Preventable Diseases" at: <http://www.cdc.gov/vaccines/pubs/surv-manual/index.html>

In the future, VPD investigations submitted for state review with incomplete surveillance indicator information will be returned to the submitter(s) for completion. If there is a valid reason for missing data, please indicate the reason(s) in the notes section of the WVEDSS form.

Surveillance Indicators for Confirmed/Probable* Mumps Cases (n=2)	Percent complete Jan 1 – Jun 30, 2012	Missing data
Demographics (Name, address, gender, race, ethnicity, date of birth)	100%	
Clinical Case Definition	100%	
Date of Symptom Onset	100%	
Date of Report to Public Health	100%	
Vaccination History	100%	
Hospitalization	100%	
Laboratory Testing	100%	
Transmission Setting	100%	
Epidemiologic Data – Outbreak Related	100%	
Epidemiologic Data – Epi-linked to Another Case	50%	Left blank
Epidemiologic Data – Contact Tracing Complete	100%	

*Suspected cases should also include all above listed information

Surveillance Indicators for Confirmed/Probable H. flu Cases (n=1 in children < 5 years of age*)	Percent complete Jan 1 – Jun 30, 2012	Missing data
Demographics (Name, address, gender, race, ethnicity, date of birth)	100%	
Clinical Case Definition	100%	
Date of Symptom Onset	100%	
Date of Report to Public Health	100%	
Vaccination History	100%	
Serotype	100%	
Specimen Source	100%	
Type of Infection	100%	

*Even though CDC only monitors completeness of data for children < 5 years of age, this information should be complete for all cases, regardless of age

Surveillance Indicators for Confirmed/Probable Meningococcal Cases (n=4)	Percent complete Jan 1 – Jun 30, 2012	Missing data
Demographics (Name, address, gender, race, ethnicity, date of birth)	100%	
Clinical Case Definition	100%	
Date of Symptom Onset	100%	
Date of Report to Public Health	100%	
Vaccination History	75%	Missing for 76 yr old
Serogroup	75%	Unable to serotype
Type of Infection	100%	

Surveillance Indicators for Confirmed Invasive <i>S. pneumonia</i> Cases (n=9 in children < 5 years of age*)	Percent complete Jan 1 – Jun 30, 2012	Missing data
Demographics (Name, address, gender, race, ethnicity, date of birth)	78%	Missing race & ethnicity for 2 cases
Clinical Case Definition	100%	
Date of Symptom Onset	100%	
Date of Report to Public Health	44%	No date of report to county or state for 5
Vaccination History	89%	Blank for 1 case
Type of Infection	100%	
Specimen Source	100%	
Underlying Medical Conditions	100%	
Antibiotic Sensitivity Profile	89%	Not done for 1 case
Capsular Type	78%	Not done for 2 cases

*Even though CDC only monitors completeness of data for children < 5 years of age, this information should be complete for all cases, regardless of age

Surveillance Indicators for Confirmed/Probable Pertussis Cases (n=43)	Percent complete Jan 1 – Jun 30, 2012	Missing data
Demographics (Name, address, gender, race, ethnicity, date of birth)	93%	3 missing race and ethnicity
Clinical Case Definition	100%	
Date of Symptom Onset	95%	Missing for 2 cases
Date of Report to Public Health	77%	No date of report to county or state for 10 cases
Vaccination History	91%	Missing for 4 cases – only 1 was an adult
Complications (including information on hospitalization, presence of whoop, post-tussive vomiting, and paroxysmal cough, apnea, chest x-rays for pneumonia, seizures and encephalopathy)	93%	At least one indicator missing or unknown for 3 cases
Antibiotic Treatment	100%	
Laboratory Testing	100%	Not all cases were tested, but forms indicated testing was not done where appropriate
Epidemiologic Data – Outbreak Related	63%	4 left blank, 12 marked “Unknown”
Epidemiologic Data – Epi-linked to Another Case	88%	Missing/ “Unknown” for 5 cases
Epidemiologic Data – Contact Tracing Complete	100%	

Appendix A

Performance Measure	2012 Objective
70%	Percent of case reports with complete information submitted to CDC within one month of diagnosis for the following: Congenital Rubella Syndrome (CRS), diphtheria, haemophilus influenzae, measles, meningococcal disease, mumps, pertussis, polio, invasive pneumococcal disease, rubella, tetanus, pediatric (<18 years of age) influenza deaths, and varicella.
70%	Percent of case reports with complete information submitted electronically to CDC within one month of diagnosis for the following: Congenital Rubella Syndrome (CRS), diphtheria, haemophilus influenzae, measles, meningococcal disease, mumps, pertussis, polio, invasive pneumococcal disease, rubella, tetanus, pediatric (<18 years of age) influenza deaths, and varicella.
90%	The proportion of Haemophilus influenzae invasive disease cases among children under 5 years of age with complete vaccination history.
90%	The proportion of Haemophilus influenzae isolates from cases under 5 years of age that were serotyped.
100%	The proportion of measles cases with complete vaccination history.
100%	The proportion of measles cases or chains of transmission that have an imported source.
90%	The proportion of meningococcal cases with complete vaccination history.
90%	The proportion of meningococcal cases with known serogroup.
80%	The proportion of mumps cases for which appropriate clinical specimens were obtained and submitted to the laboratory.
90%	The proportion of mumps cases with complete vaccination history.
60%	The proportion of pertussis cases from which clinical specimens are obtained.
70%	The proportion of probable and confirmed pertussis cases meeting the clinical case definition that is laboratory confirmed.
2%	The proportion of cases confirmed by isolation of B. pertussis by culture.
50%	The proportion of probable and confirmed pertussis cases with a complete vaccination history. 50 %
90%	The proportion of pneumococcal invasive disease cases among children under 5 years of age with complete vaccination history.
80%	The proportion of pneumococcal isolates from cases of invasive disease under 5 years of age that are serotyped and tested for antibiotic resistance.
100%	The proportion of confirmed rubella cases among women of child-bearing age with known pregnancy status.
100%	The proportion of confirmed rubella cases that are laboratory confirmed.
N/A	Percentage of varicella cases with complete information for age, vaccination history, and severity of disease.