

Surveillance Indicator Evaluation of Selected Food and Waterborne Diseases

Evaluated the completeness of cases Salmonellosis, Campylobacteriosis, Shiga toxin-producing *E.coli* and Giardiasis reported during MMWR year 2014.

For evaluation of Hospitalization and Death questions, “Unknown” was considered a missing response.

For evaluation of risk factor questions, “Unknown” was considered a completed response.

The risk factor questions that were included to determine if a complete risk factor investigation was completed are detailed below for each disease.

Salmonellosis

1. Eat fresh shell eggs?
2. Eat raw eggs?
3. Eat raw or undercooked chicken, turkey or other fowl?
4. Eat raw fruits or vegetables?
5. Contact with birds, poultry, farm animals or reptiles?
6. Is case a member of a high risk occupation?

Campylobacteriosis

1. Eat undercooked chicken, turkey or other fowl?
2. Eat or drink raw or unpasteurized milk?
3. Eat unpasteurized dairy products?
4. Drink untreated/unchlorinated water?
5. Contact with poultry?
6. Is case a member of a high risk occupation?

Shiga toxin-producing E. coli

1. Eat raw or undercooked hamburger, red meat, or pork?
2. Eat or drink raw or unpasteurized milk?
3. Eat pasteurized dairy products?
4. Eat raw fruits or vegetables
5. Work with animals or animal products?
6. Drink untreated/unchlorinated water?
7. Visit a petting zoo, farm or pet shop?
8. Hike, camp, fish or swim?
9. Is case a member of a high risk occupation?

Giardiasis

1. Drink untreated/unchlorinated water?
2. Hike, camp, fish or swim?
3. Other recreational water exposure?
4. Travel to another state or country?

For evaluation of Lost to Follow Up, all investigations (including not a case) were included. An investigation was counted as lost to follow up when the question in WVEDSS had a “Yes” response.

SURVEILLANCE INDICATOR EVALUATION-COMPLETENESS OF CASES REPORTED 2014

	Salmonellosis			
	Number of Cases	Complete Risk Factor Investigation	Hospitalization	Death
STATEWIDE	180	71%	98%	97%
CENTRAL REGION	29	83%	97%	97%
Braxton	2	100%	100%	100%
Kanawha	14	100%	100%	100%
Lewis	1	0%	100%	100%
Putnam	8	75%	100%	100%
Upshur	3	67%	100%	100%
Webster	1	0%	0%	0%
EASTERN REGION	39	46%	95%	95%
Berkeley	20	45%	95%	95%
Grant	0			
Hampshire	2	50%	100%	100%
Hardy	2	100%	100%	100%
Jefferson	7	29%	100%	100%
Mineral	1	0%	100%	100%
Morgan	2	0%	100%	100%
Pendleton	1	100%	100%	100%
Pocahontas	0			
Randolph	3	67%	67%	67%
Tucker	1	100%	100%	100%
NORTHEASTERN REGION	25	72%	100%	96%
Barbour	1	100%	100%	100%
Doddridge	0			
Harrison	5	40%	100%	80%
Marion	5	80%	100%	100%
Monongalia	7	100%	100%	100%
Preston	5	40%	100%	100%
Taylor	2	100%	100%	100%
NORTHWESTERN REGION	33	82%	97%	97%
Brooke	2	50%	100%	100%
Calhoun	0			
Clay	2	50%	100%	100%
Gilmer	3	100%	100%	100%
Hancock	4	75%	100%	100%
Marshall	7	86%	86%	86%
Ohio	5	100%	100%	100%
Pleasants	1	100%	100%	100%
Ritchie	0			
Roane	1	100%	100%	100%
Tyler	1	100%	100%	100%
Wetzel	2	100%	100%	100%
Wirt	0			
Wood	5	60%	100%	100%

SURVEILLANCE INDICATOR EVALUATION-COMPLETENESS OF CASES REPORTED 2014

Salmonellosis				
	Number of Cases	Complete Risk Factor Investigation	Hospitalization	Death

SOUTHERN REGION	32	72%	100%	100%
Fayette	3	0%	100%	100%
Greenbrier	3	100%	100%	100%
McDowell	4	75%	100%	100%
Mercer	6	67%	100%	100%
Monroe	2	100%	100%	100%
Nicholas	0			
Raleigh	9	89%	100%	100%
Summers	2	50%	100%	100%
Wyoming	3	67%	100%	100%
WESTERN REGION	22	77%	100%	100%
Boone	5	80%	100%	100%
Cabell	2	50%	100%	100%
Jackson	5	80%	100%	100%
Lincoln	1	0%	100%	100%
Logan	4	75%	100%	100%
Mason	0			
Mingo	2	100%	100%	100%
Wayne	3	100%	100%	100%

SURVEILLANCE INDICATOR EVALUATION -COMPLETENESS OF CASES REPORTED 2014

	Campylobacteriosis			
	Number of Cases	Complete Risk Factor Investigation	Hospitalization	Death
STATEWIDE	271	83%	98%	97%
CENTRAL REGION	44	91%	100%	98%
Braxton				
Kanawha	27	89%	100%	96%
Lewis	1	100%	100%	100%
Putnam	7	100%	100%	100%
Upshur	9	89%	100%	100%
Webster	0			
EASTERN REGION	68	79%	94%	93%
Berkeley	30	87%	97%	97%
Grant	4	100%	100%	100%
Hampshire	7	71%	100%	100%
Hardy	9	56%	78%	78%
Jefferson	2	0%	50%	50%
Mineral	6	83%	100%	100%
Morgan	2	50%	100%	50%
Pendleton	3	100%	100%	100%
Pocahontas	3	100%	100%	100%
Randolph	2	100%	100%	100%
Tucker	0			
NORTHEASTERN REGION	30	83%	100%	97%
Barbour	1	100%	100%	100%
Doddridge	0			
Harrison	3	67%	100%	100%
Marion	1	100%	100%	100%
Monongalia	17	94%	100%	94%
Preston	8	63%	100%	100%
Taylor				
NORTHWESTERN REGION	33	82%	97%	100%
Brooke	2	100%	100%	100%
Calhoun	0			
Clay	1	0%	100%	100%
Gilmer	0			
Hancock	7	71%	86%	100%
Marshall	0			
Ohio	3	100%	100%	100%
Pleasants	3	100%	100%	100%
Ritchie	0			
Roane	2	50%	100%	100%
Tyler	1	100%	100%	100%
Wetzel	3	100%	100%	100%
Wirt	0			
Wood	11	82%	100%	100%

SURVEILLANCE INDICATOR EVALUATION -COMPLETENESS OF CASES REPORTED 2014

Campylobacteriosis				
	Number of Cases	Complete Risk Factor Investigation	Hospitalization	Death

SOUTHERN REGION	55	82%	98%	98%
Fayette	6	0%	100%	100%
Greenbrier	5	100%	100%	100%
McDowell	3	100%	100%	100%
Mercer	20	95%	95%	100%
Monroe	3	67%	100%	100%
Nicholas	3	67%	100%	67%
Raleigh	12	92%	100%	100%
Summers	0			
Wyoming	3	100%	100%	100%
WESTERN REGION	41	83%	100%	98%
Boone	5	80%	100%	100%
Cabell	4	100%	100%	100%
Jackson	3	67%	100%	100%
Lincoln	2	0%	100%	100%
Logan	12	83%	100%	100%
Mason	3	100%	100%	100%
Mingo	5	80%	100%	80%
Wayne	7	100%	100%	100%

SURVEILLANCE INDICATOR EVALUATION-COMPLETENESS OF CASES REPORTED 2014

	Shiga Toxin-producing <i>E.coli</i>				
	Number of Cases	Complete Risk Factor Investigation	Hospitalization	Death	PHA-Disease Education
STATEWIDE	33	91%	85%	97%	88%
CENTRAL REGION	4	75%	100%	100%	50%
Braxton	0				
Kanawha	0				
Lewis	0				
Putnam	0				
Upshur	4	75%	100%	100%	
Webster	0				
EASTERN REGION	6	83%	100%	100%	100%
Berkeley	0				
Grant	3	100%	100%	100%	
Hampshire	0				
Hardy	0				
Jefferson	1	100%	100%	100%	
Mineral	1	100%	100%	100%	
Morgan	0				
Pendleton	0				
Pocahontas	1	0%	100%	100%	
Randolph	0				
Tucker	0				
NORTHEASTERN REGION	4	100%	100%	100%	100%
Barbour	0				
Doddridge	0				
Harrison	1	100%	100%	100%	
Marion	0				
Monongalia	2	100%	100%	100%	
Preston	1	100%	100%	100%	
Taylor	0				
NORTHWESTERN REGION	4	100%	100%	100%	100%
Brooke	0				
Calhoun	0				
Clay	0				
Gilmer	0				
Hancock	0				
Marshall	0				
Ohio	0				
Pleasants	0				
Ritchie	0				
Roane	0				
Tyler	2	100%	100%	100%	
Wetzel	0				
Wirt	0				
Wood	2	100%	100%	100%	

SURVEILLANCE INDICATOR EVALUATION-COMPLETENESS OF CASES REPORTED 2014

Shiga Toxin-producing <i>E.coli</i>					
	Number of Cases	Complete Risk Factor Investigation	Hospitalization	Death	PHA-Disease Education
SOUTHERN REGION	12	92%	100%	92%	83%
Fayette	3	100%	100%	67%	
Greenbrier	2	100%	100%	100%	
McDowell	0				
Mercer	2	100%	100%	100%	
Monroe	2	100%	100%	100%	
Nicholas	1	100%	100%	100%	
Raleigh	0				
Summers	0				
Wyoming	2	100%	100%	100%	
WESTERN REGION	3	100%	100%	100%	100%
Boone	0				
Cabell	1	100%	100%	100%	
Jackson	1	100%	100%	100%	
Lincoln	0				
Logan	0				
Mason	0				
Mingo	0				
Wayne	1	100%	100%	100%	

SURVELLANCE INDICATOR EVALUATION-COMPLETENESS OF CASES REPORTED 2014

	Giardiasis			
	Number of Cases	Complete Risk Factor Investigation	Hospitalization	Death
STATEWIDE	66	95%	97%	92%
CENTRAL REGION	6	100%	100%	100%
Braxton	1	100%	100%	100%
Kanawha	2	100%	100%	100%
Lewis	0			
Putnam	3	100%	100%	100%
Upshur	0			
Webster	0			
EASTERN REGION	17	100%	94%	94%
Berkeley	3	100%	100%	100%
Grant	0			
Hampshire	2	100%	100%	100%
Hardy	1	100%	100%	100%
Jefferson	2	100%	50%	50%
Mineral	3	100%	100%	100%
Morgan	1	100%	100%	100%
Pendleton	1	100%	100%	100%
Pocahontas	0			
Randolph	3	100%	100%	100%
Tucker	1	100%	100%	100%
NORTHEASTERN REGION	18	89%	94%	83%
Barbour	1	100%	100%	100%
Doddridge	1	100%	100%	100%
Harrison	7	86%	100%	86%
Marion	2	100%	100%	100%
Monongalia	3	67%	67%	67%
Preston	2	100%	100%	50%
Taylor	2	100%	100%	100%
NORTHWESTERN REGION	5	100%	100%	100%
Brooke	0			
Calhoun	1	100%	100%	100%
Clay	0			
Gilmer	0			
Hancock	1	100%	100%	100%
Marshall	0			
Ohio	1	100%	100%	100%
Pleasants	0			
Ritchie	0			
Roane	0			
Tyler	0			
Wetzel	1	100%	100%	100%
Wirt	0			
Wood	1	100%	100%	100%

SURVELLANCE INDICATOR EVALUATION-COMPLETENESS OF CASES REPORTED 2014

	Giardiasis			
	Number of Cases	Complete Risk Factor Investigation	Hospitalization	Death
SOUTHERN REGION	10	100%	100%	100%
Fayette	1	100%	100%	100%
Greenbrier	1	100%	100%	100%
McDowell	1	100%	100%	100%
Mercer	3	100%	100%	100%
Monroe	0			
Nicholas	0			
Raleigh	2	100%	100%	100%
Summers	1	100%	100%	100%
Wyoming	1	100%	100%	100%
WESTERN REGION	10	90%	100%	90%
Boone	1	100%	100%	100%
Cabell	1	100%	100%	0%
Jackson	0			
Lincoln	5	100%	100%	100%
Logan	1	0%	100%	100%
Mason	0			
Mingo	1	100%	100%	100%
Wayne	1	100%	100%	100%

Cases Lost to Follow Up for Selected Foodborne Conditions*

Jurisdiction	# Cases Lost to F/U	Total investigations	Percent Lost to F/U
STATEWIDE	61	554	11%
Barbour	0	3	0%
Berkeley	6	54	11%
Boone	0	11	0%
Braxton	0	3	0%
Brooke	0	4	0%
Cabell	3	9	33%
Calhoun	0	1	0%
Clay	1	3	33%
Doddridge	0	1	0%
Fayette	0	13	0%
Gilmer	0	3	0%
Grant	0	7	0%
Greenbrier	1	11	9%
Hampshire	1	11	9%
Hancock	4	12	33%
Hardy	3	12	25%
Harrison	3	16	19%
Jackson	0	9	0%
Jefferson	4	12	33%
Kanawha	2	43	5%
Lewis	0	2	0%
Lincoln	2	8	25%
Logan	2	17	12%
Marion	2	8	25%
Marshall	1	7	14%
Mason	0	3	0%
McDowell	0	8	0%
Mercer	2	31	6%
Mineral	3	11	27%
Mingo	1	8	13%
Monongalia	3	29	10%
Monroe	0	7	0%
Morgan	1	5	20%
Nicholas	2	4	50%
Ohio	0	9	0%
Pendleton	0	5	0%
Pleasants	0	4	0%
Pocahontas	0	4	0%
Preston	0	16	0%
Putnam	1	18	6%
Raleigh	1	24	4%
Randolph	1	8	13%

Cases Lost to Follow Up for Selected Foodborne Conditions*

Jurisdiction	# Cases Lost to F/U	Total investigations	Percent Lost to F/U
Ritchie	0	0	NA
Roane	2	3	67%
Summers	0	3	0%
Taylor	1	4	25%
Tucker	0	2	0%
Tyler	0	4	0%
Upshur	3	16	19%
Wayne	0	12	0%
Webster	1	2	50%
Wetzel	0	6	0%
Wood	4	19	21%
Wyoming	0	9	0%

*Selected Conditions include: Salmonellosis, Campylobacteriosis, STEC, Giardiasis