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General Information

Communicable Disease
and Epidemiology
(630) 221-7553

Environmental Health
(630) 682-7400

Immunizations
(630) 682-7400

Sexually
Transmitted Diseases
(630) 221-7553

HIV/AIDS
(630) 221-7553

Tuberculosis
(630) 221-7522

School Health
(630) 221-7300

Travel Clinic
(630) 682-7400

Animal Care & Control
(630) 407-2800

Please contact
Communicable Disease
and Epidemiology at
(630) 221-7553
with suggestions
or to be added to the
distribution list.

The purpose of this two-page surveillance update is to promote the control and prevention of **communicable disease (CD)** by providing clinically relevant information and resources to healthcare professionals in DuPage County.



Under the Microscope Shigellosis

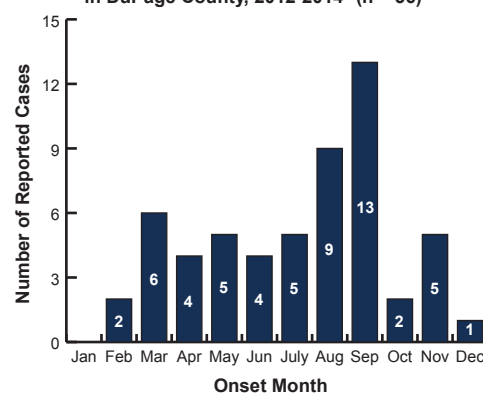
For questions or to report suspect and known cases of shigellosis, please call the DuPage County Health Department at (630) 221-7553.

Shigellosis is an infectious disease caused by a group of bacteria called *Shigella*. **Most people who are infected with *Shigella* develop diarrhea, fever, and stomach cramps one to two days after being exposed to the bacterium.** The diarrhea is often bloody. Shigellosis usually resolves in five to seven days. In some persons, especially young children and the elderly, the diarrhea can be so severe the patient needs to be hospitalized. A severe infection with high fever also may be associated with seizures in children younger than two years of age.¹

In the U.S., **groups at increased risk of shigellosis** include children in child-care centers and persons in custodial institutions, where personal hygiene is difficult to maintain; international travelers; men who have sex with men; and those in homes with inadequate water for handwashing.²

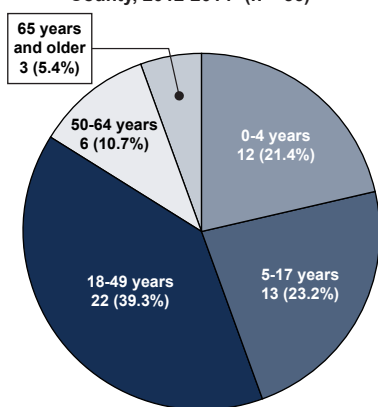
Some persons who are infected may have no symptoms at all, but may still pass the *Shigella* bacteria to others.¹ A small inoculum (10 to 200 organisms) is sufficient to cause infection.² As a result, *Shigella* can be transmitted easily from person to person and through contaminated food and recreational water. Outbreaks of shigellosis frequently are large and protracted.³ *Shigella* can also be transmitted by flies and sexual contact.²

Reported Cases of Shigellosis by Month of Illness Onset in DuPage County, 2012-2014* (n = 56)



Source: Illinois-National Electronic Disease Surveillance System
*2014 data are provisional

Reported Shigellosis Cases by Age Group in DuPage County, 2012-2014* (n = 56)



Source: Illinois-National Electronic Disease Surveillance System
*2014 data are provisional

There are four species of *Shigella*: *sonnei*, *flexneri*, *dysenteriae*, and *boydii*. Approximately 14,000 laboratory confirmed cases of shigellosis and an estimated 450,000 total cases (72% due to *S. sonnei*) occur in the U.S. each year. In the developing world, *S. flexneri* predominates. Epidemics of *S. dysenteriae* type 1 have occurred in Africa and Central America with case fatality rates of 5-15%.²

Although **diarrhea caused by *S. sonnei* typically resolves without treatment**, patients with mild illness often are treated with antimicrobial medications because they can reduce the duration of symptoms and shedding of shigellae in feces. However, **resistance to the oral antimicrobial medications ampicillin and trimethoprim/sulfamethoxazole is common among shigellae in the U.S., and resistance to fluorquinolones is increasing among shigellae globally.** Because only about 2% of shigellae isolated in the U.S. are resistant to fluorquinolones, ciprofloxacin is the first-line treatment for adults with shigellosis and is recommended as an empiric treatment for adult international travelers with diarrhea.³

Ciprofloxacin-resistant *S. sonnei* is being repeatedly introduced into the U.S. via travelers from various countries and is circulating domestically at rates that are higher than in the past. International travelers should be aware of the risks

for acquiring multidrug-resistant pathogens, wash their hands meticulously, adhere to food and water precautions, and try to **reserve antimicrobial medications for severe cases of travelers' diarrhea.**³

Clinicians should culture the stool specimens of patients with symptoms consistent with shigellosis, **reculture** the stool of patients who **fail to improve after antimicrobial therapy**, and test bacterial pathogens for **antimicrobial susceptibility**. Reserving antimicrobial treatment for immunocompromised patients and patients with severe shigellosis and using antimicrobial susceptibility data strategically to guide therapy might help preserve the utility of such medications.³

Patients with shigellosis should be advised to follow meticulous hygiene regimens while ill. Hygiene promotion and increased access to hygiene and sanitation infrastructure might help prevent transmission among vulnerable populations.³

References:

1. www.idph.state.il.us/public/hb/hbshigellosis.htm
2. www.cdc.gov/shigella/resources.html
3. www.cdc.gov/mmwr/preview/mmwrhtml/mm6412a2.htm?s_cid=mm6412a2_w

DUPAGE COUNTY HEALTH DEPARTMENT
CASES¹ OF REPORTABLE DISEASES*

* Last updated by the Illinois Department of Public Health in February 2014

CD REVIEW
Volume 11, No. 5 May 2015

Vaccine Preventable Diseases	Report Within	2015		2014		2013		2012		2011		Median	
		Apr	Jan-Apr	Jan-Apr	Total	Jan-Apr	Total	Jan-Apr	Total	Jan-Apr	Total	Jan-Apr	Total ('11-'14)
Chickenpox (varicella)	24 hrs	4	15	27	74	22	78	43	93	31	82	27	80
Diphtheria	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
<i>Haemophilus influenzae</i> , invasive	24 hrs	1	4	1	5	1	10	5	11	4	15	4	10.5
Hepatitis A	24 hrs	1	2	3	8	1	4	0	8	2	8	2	8
Hepatitis B	7 days	0	1	1	6	1	3	1	5	1	1	1	4
Hepatitis B (carriers)	7 days	9	48	26	109	41	110	38	101	34	113	38	109.5
Influenza, deaths in < 18 yrs old	7 days	0	0	0	0	1	1	0	0	0	0	0	0
Influenza, ICU admissions	24 hrs	7	35	36	140	52	78	5	64	23	24	35	71
Measles (rubeola)	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Mumps	24 hrs	0	2	1	1	0	0	1	1	1	3	1	1
<i>Neisseria meningitidis</i> , invasive	24 hrs	0	0	0	0	0	0	0	0	1	2	0	0
Pertussis (whooping cough)	24 hrs	2	8	9	22	13	43	87	195	48	268	13	119
Poliomyelitis	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Rubella	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
<i>Streptococcus pneumoniae</i> , invasive disease, in those < 5 yrs old	7 days	0	0	1	3	1	4	2	5	7	13	1	4.5
Tetanus	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Other Communicable Diseases													
Anaplasmosis ²	7 days	0	0	0	3	0	0	0	2	0	3	0	2.5
Anthrax	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Botulism, foodborne	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Botulism, other	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Brucellosis	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
California encephalitis ³	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Chikungunya fever ³	7 days	0	0	0	0	NR	NR	NR	NR	NR	NR	0	0
Cholera	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Creutzfeldt-Jakob disease	7 days	0	0	1	2	0	0	0	1	1	3	0	1.5
Cryptosporidiosis	7 days	0	2	0	2	0	7	1	2	0	5	0	3.5
Cyclosporiasis	7 days	0	0	0	1	2	4	0	0	0	0	0	0.5
Dengue fever ³	7 days	0	0	1	1	0	3	0	1	1	1	0	1
Ehrlichiosis ²	7 days	0	0	0	1	0	0	0	0	0	0	0	0
Enteric <i>E. coli</i> infections ⁴	24 hrs	1	3	2	18	4	54	5	19	6	22	4	20.5
Glomerulonephritis ⁵	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Hantavirus pulmonary syndrome	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Hemolytic uremic syndrome	24 hrs	0	0	0	2	0	0	0	1	0	1	0	1
Hepatitis C (cases & carriers)	7 days	23	84	89	238	59	182	67	171	62	189	67	185.5
Hepatitis D	7 days	0	0	0	0	0	0	0	0	0	1	0	0
Histoplasmosis	7 days	1	1	3	7	0	1	0	2	0	1	0	1.5
Influenza A, novel virus	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Legionellosis	7 days	2	3	5	26	4	39	5	25	1	14	4	25.5
Leprosy	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Leptospirosis	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Listeriosis	7 days	0	0	0	2	0	2	0	2	1	2	0	2
Lyme disease ²	7 days	0	0	1	22	0	39	1	27	0	32	0	29.5
Malaria	7 days	0	0	0	2	2	7	1	2	1	7	1	4.5
Ophthalmia neonatorum	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Plague	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Psittacosis	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Q fever	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Rabies, animal case	24 hrs	0	0	1	6	NR	NR	NR	NR	NR	NR	0.5	6
Rabies, human case	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Rabies, potential exposure	24 hrs	0	3	9	51	5	44	2	43	3	30	3	43.5
Reye syndrome	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Rheumatic fever ⁵	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Rocky Mountain spotted fever ²	7 days	0	0	0	0	0	0	0	1	0	0	0	0
Salmonellosis	7 days	10	27	14	115	22	128	25	123	28	95	25	119
Severe Acute Respiratory Syndrome	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Shigellosis	7 days	0	3	2	18	3	18	7	20	7	22	3	19
Smallpox	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Smallpox vaccination, complications	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
St. Louis encephalitis ³	7 days	0	0	0	0	0	0	0	0	0	0	0	0
<i>Staphylococcus aureus</i> , methicillin resistant (MRSA), in those < 61 days old	24 hrs	2	3	3	9	0	3	1	7	1	3	1	5
<i>Staphylococcus aureus</i> , methicillin resistant (MRSA), community cluster ⁶	24 hrs	1	1	0	0	0	0	1	1	0	0	0	0
<i>Staphylococcus aureus</i> (vancomycin-resistant)	24 hrs	0	0	0	0	0	0	0	0	0	1	0	0
Streptococcal infections, group A invasive disease ⁷	24 hrs	1	9	16	29	11	21	10	20	18	30	11	25
Toxic shock syndrome ⁸	7 days	0	0	0	0	0	1	0	0	1	1	0	0.5
Trichinosis	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Tuberculosis	7 days	4	6	4	33	10	35	5	26	7	23	6	29.5
Tularemia	3 hrs	0	0	0	0	0	0	0	1	0	0	0	0
Typhoid fever	24 hrs	0	1	1	5	0	2	1	2	3	3	1	2.5
Typhus	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Vibriosis (non-cholera)	7 days	1	1	0	3	0	2	1	4	0	3	0	3
West Nile virus disease ³	7 days	0	0	0	5	0	6	0	56	0	2	0	5.5
Yersiniosis	7 days	0	0	1	3	1	2	3	3	1	3	1	3
STDs, HIV and AIDS													
AIDS ⁹ (April - June)	7 days	--	**	7	15	16	25	9	17	7	16	8	16.5
Chancroid	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Chlamydia	7 days	158	634	662	1912	613	1883	583	1861	473	1599	613	1872
Gonorrhea	7 days	20	88	71	220	84	258	80	239	64	241	80	240
HIV infection ⁹ (April - June)	7 days	--	**	17	29	13	28	10	20	11	24	12	26
Syphilis ¹⁰	7 days	1	6	12	38	13	34	7	19	13	24	12	29

DuPage County healthcare providers and hospitals **must report any suspected or confirmed case of these diseases** to the local health authorities within the number of hours or days indicated.

REPORTING NUMBERS:

Communicable Diseases
(630) 221-7553
24 hours: (630) 682-7400

Tuberculosis
(630) 221-7522

STDs
(630) 221-7553

HIV/AIDS:
(630) 221-7553

- ¹ Provisional cases, based on date of onset
 - ² Listed in CD Rules and Regulations under "Tickborne Disease"
 - ³ Listed in CD Rules and Regulations under "Arboviral Infections"
 - ⁴ O157:H7, STEC, EIEC, ETEC, EPEC
 - ⁵ Listed in CD Rules and Regulations under "Streptococcal infections, group A invasive disease sequelae"
 - ⁶ Two or more laboratory-confirmed cases of community onset MRSA infection during a 14 day period
 - ⁷ Includes streptococcal toxic shock syndrome and necrotizing fasciitis
 - ⁸ Due to *Staphylococcus aureus*
 - ⁹ HIV/AIDS data are provided quarterly by IDPH and are provisional, based on date of diagnosis.
 - ¹⁰ Cases are provisional, based on test date per local health department investigation.
- NR = Not reported
** = Count of 5 cases or less

Websites

CDC:
www.cdc.gov

IDPH:
www.dph.illinois.gov

DuPage:
www.dupagehealth.org

Archived issues of *CD Review* are available at:
www.dupagehealth.org/publications