



Epi Update

A newsletter for healthcare professionals in Platte County, MO

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SPECIAL POINTS OF INTEREST:

- Familiarize yourself with current antibiotic resistance threats in the U.S. and their risk factors
- Secondhand smoke continues to affect 15 million children in the U.S.
- Reported flu rates in Platte County dropped at the end of February

INSIDE THIS ISSUE:

Secondhand Smoke Stats	2
Influenza Report	2
February CD Report	3
References	3

For more information or questions about Epi Update, contact Erin Sanders, PCHD Epidemiology Specialist at: (816) 858-2412

Superbugs: Threat Level Urgent

Antibiotic resistance is a growing public health concern that has been highlighted in recent news headlines. A [2013 report](#) from the CDC lists the top antibiotic resistance threats in the United States, three of which have been labeled “Urgent.”¹

HAZARD LEVEL URGENT

These are high-consequence antibiotic-resistant threats because of significant risks identified across several criteria. These threats may not be currently widespread but have the potential to become so and require urgent public health attention to identify infections and to limit transmission.



Clostridium difficile A recent study released by the CDC estimates that in one year, *C. difficile* caused nearly half a million infections among patients in the U.S., two-thirds of which were associated with inpatient hospitalizations, while the rest were community-associated.² Another study found that over 80% of patients with community-associated infections had been exposed to outpatient healthcare settings before their diagnosis.³ *C. difficile* is naturally resistant to many drugs used to treat infections and can cause life-threatening diarrhea.^{1,4}



Carbapenem-Resistant Enterobacteriaceae (CRE) CRE have recently been in the news after duodenoscopes were implicated in transmitting CRE in several hospitalized patients in California.^{5,6} CRE are resistant to all or nearly all of the antibiotics we have today and kill nearly half of hospitalized patients who get bloodstream infections from CRE.^{1,7} The most common types of CRE are *Klebsiella* species and *E. coli*.¹



Drug-Resistant *Neisseria gonorrhoeae* The second most commonly reported notifiable infection in the United States, gonorrhea is showing resistance to antibiotics including cefixime, ceftriaxone, azithromycin, and tetracycline.^{1,4} As a result, the CDC recently updated its treatment guidelines to recommend only ceftriaxone plus either azithromycin or doxycycline as first-line treatment for gonorrhea.¹

What to do The CDC has outlined **4 core actions** to fight antibiotic resistance.⁸

- 1) **Prevention** Preventing new infections in the first place will reduce the amount of antibiotics that need to be used.
- 2) **Tracking** Gathering data on antibiotic-resistant infections enables experts to develop strategies to reduce their spread.
- 3) **Improving antibiotic prescribing/stewardship** It is estimated that up to half of antibiotic use in humans is unnecessary, so even some reduction in unnecessary antibiotic use will help slow the spread of antibiotic resistance.
- 4) **Developing new drugs/diagnostic tests** New drugs are needed to combat these antibiotic resistant bacteria, while new diagnostic tests are also needed to continue tracking them as they evolve.

Graphics: Centers for Disease Control and Prevention⁴

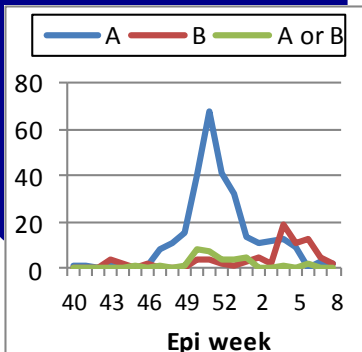
Percent of Platte County survey respondents that believe SHS causes:

Respiratory problems in children	94%
Heart disease in adults	69%
Sudden infant death syndrome	47%
Colon cancer in adults	23%

Source: MDHSS, 2011 County-Level Study, Secondhand Smoke Profile ¹⁰

Remember to fax your flu reports weekly to PCHD at (816) 858-2087

2014-15 Influenza Season: Reported Influenza Cases, Weeks 40-53, 1-8



Secondhand Smoke in the U.S.

Though prevalence of secondhand smoking (SHS) exposure in non-smokers has dropped over the past 10 years, a recent survey shows that 58 million people in the United States are still exposed to SHS.⁹

From 1999-2012, the National Health and Nutrition Examination Survey (NHANES) measured serum cotinine levels to determine SHS exposure in a sample of the nonsmoking population aged ≥3 years.⁹ In 2011-2012, 25% of the

population was estimated to have exposure to SHS, down considerably from 53% in 1999-2000.

However, disparities in SHS exposure still exist for several population groups.⁹ 41% of children aged 3-11 were exposed to SHS, more than any other age group. Exposure to SHS was also highest among non-Hispanic blacks (47%), persons living in poverty (43%), and persons who rent their housing (37%). In particular, 67% of non-Hispanic black children

aged 3-11 were found to have SHS exposure.⁹

There is no risk-free level of SHS exposure, which can cause sudden infant death syndrome (SIDS), respiratory infections, ear infections, and asthma attacks in infants and children, and coronary heart disease, stroke, and lung cancer in adult nonsmokers.⁹ As seen in a 2011 survey of Platte County residents (left), there continues to be a need to educate people about the risks of SHS exposure.¹⁰

Platte County Influenza Report

February Flu Report		Epi Week				Month	YTD
Age Group	Type	5	6	7	8	total	(wks 40-53, 1-8)
0- 1	Type A	1				1	13
	Type B					0	1
	Type A or B					0	0
2 - 4	Type A					0	23
	Type B	1	2			3	7
	Type A or B					0	2
5 - 14	Type A	2				2	76
	Type B	9	6	2	1	18	45
	Type A or B					0	8
15 - 24	Type A	1		2		3	35
	Type B		1	2		3	5
	Type A or B		1			1	5
25 - 49	Type A	3		1	1	5	71
	Type B	1	2	1		4	12
	Type A or B					0	14
50 - 64	Type A	2			1	3	33
	Type B		1			1	5
	Type A or B					0	2
65 +	Type A					0	32
	Type B		1		1	2	4
	Type A or B		1			1	3

Notable this month:

396 cases of influenza have been reported to date this season.

After a slight peak in flu type B activity during weeks 4-6, reported flu activity dropped to pre-season rates by the end of February.

Though 71% of reported flu this season has been type A, flu type B was predominant in February.

Flu totals*

Weeks 5-8:

A	14
B	31
A or B	2

Year to date:

A	283
B	79
A or B	34

*Reflect total reports received as of 3/9/15.

Communicable Disease Report

Notable this month:

Animal bites: The number of animal bites reported to the health department in February was higher this year than in the past 5 years. Year-to-date, animal bite reporting is also well above the 5 year average.

Reportable Diseases February 2015		YTD*						5 YR AVG†
		2015	2014	2013	2012	2011	2010	
Animal Bites	7	9	9	3	6	5	1	5
Gastrointestinal Diseases	3	3	1	10	3	2	0	3
Hepatitis	4	11	9	13	21	15	10	14
STD	5	8	6	8	12	8	13	9
Tuberculosis	2	4	11	9	5	5	3	7
Other	6	12	8	13	20	10	4	11
TOTAL	27	47	44	56	67	45	31	49

*Year-to-date (counts reflect total cases January through February of the given year)

† Five year average is of YTD counts for years 2010-2014.

Please note that categories are grouped communicable diseases or conditions, most of which are mandatory by law to report (see links below). Totals reported for each category represent total number of reports and inquiries to the health department, not total number of cases.

Categories: Animal bites category includes any type of bite. Gastrointestinal Disease category includes all reportable GI diseases. Hepatitis category could include chronic or acute infections of Hepatitis A, B or C. Sexually Transmitted Disease category includes all reportable STDs other than Hepatitis. Tuberculosis category includes all reports, calls/inquiries, requests for previous records, etc., regarding active or latent cases of TB. Other category includes reports or inquiries regarding individual diseases that do not fit previous categories.

List of Reportable Diseases & Conditions: <http://health.mo.gov/living/healthcondiseases/communicable/communicabledisease/pdf/reportablediseaselist2.pdf>

Rules of Department of Health and Senior Services - Division 20—Division of Community and Public Health Chapter 20—Communicable Diseases: <http://www.sos.mo.gov/adrules/csr/current/19csr/19c20-20.pdf>

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Services Provided

- Disease Surveillance
- Emergency Preparedness
- Environmental Health
 - Restaurant & Septic Inspections
- Health Education
- Special Deliveries Program
- Women, Infants & Children (WIC)
- Vital Records
 - Birth & Death Certificates
- Family Healthcare Clinic
 - Physician
 - Nurse Practitioner
- Walk-In Clinic
 - Adult/Child /Travel Vaccinations
 - HIV/STD Testing
 - Pregnancy Testing

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