



# Epi Update

A newsletter for healthcare professionals in Platte County, MO

VOLUME 2, ISSUE 6

JUNE 10, 2015

## SPECIAL POINTS OF INTEREST:

- Hospital visit rates for TBIs in Platte County residents are rising
- Know the pros and cons of different diagnostic tests for foodborne illness
- Learn how to check the air quality in your area before exercising outdoors

## INSIDE THIS ISSUE:

Diagnosing GI illness	2
Air Quality Index	2
May CD Report	3
References	3

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

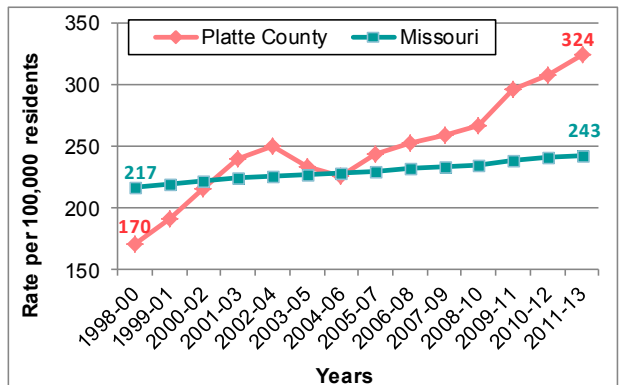
## Traumatic Brain Injuries

A traumatic brain injury (TBI) is caused by a bump, blow, or jolt to the head or a penetrating head injury that disrupts the normal function of the brain.<sup>1</sup> TBIs contribute to 30% of all injury deaths.<sup>1</sup> Here is how TBIs are affecting the health of Platte County residents:

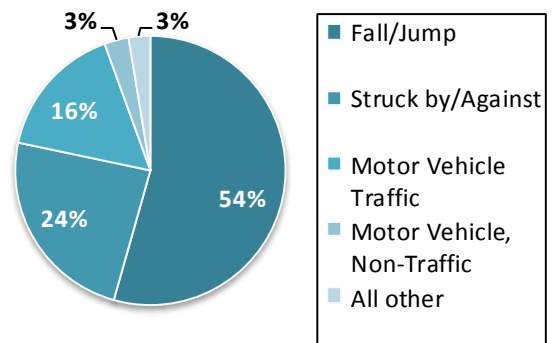
- In 2013, there were 309 hospital visits for unintentional TBIs in Platte County residents, including **3 patient deaths**.<sup>2</sup>
- Over the past 15 years, hospital visit rates for unintentional TBIs in Platte County residents have **nearly doubled**, despite a simultaneous decrease in hospital visit rates for unintentional injuries as a whole. Hospital visit rates for unintentional TBIs in Platte County were **40% higher than Missouri** rates in 2013.<sup>2</sup>
- Unintentional TBI rates in Platte County residents were **40% higher in males** than females from 2011-2013. Highest rates of TBIs were seen in males 85 and older, followed by males aged 15-17.<sup>2</sup>
- Over **80%** of diagnosed TBIs in Platte County residents in 2013 were Type 2 or **moderately serious**, while **16%** were Type 1 or **most serious**.<sup>2</sup>

To help these rates go down, learn more about how to prevent TBIs in all age groups at [www.cdc.gov/traumaticbraininjury/prevention.html](http://www.cdc.gov/traumaticbraininjury/prevention.html).<sup>3</sup>

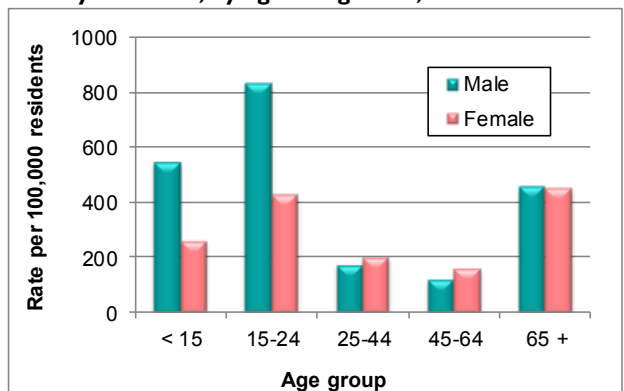
Three-year moving average rates of hospital visits\* for unintentional TBIs, Platte County and Missouri residents, 1998-2013<sup>2</sup>



Leading causes of unintentional TBIs resulting in hospital visits\* in Platte County residents, 2013<sup>2</sup>



Rates of hospital visits\* for unintentional TBIs in Platte County residents, by age and gender, 2011-2013<sup>2</sup>



\*hospital visits include ER visits and inpatient hospitalizations

# Diagnosing Foodborne Illness

Culture-independent diagnostic tests (CIDTs) are new methods for diagnosing gastrointestinal infections that are increasingly being used by clinical laboratories.<sup>4,5</sup> These tests can often test for several pathogens at once and provide results more quickly and easily than traditional stool cultures. However, unlike cultures, CIDTs do not produce isolates which are critical for public health surveillance.<sup>5</sup>

Culture isolates can undergo additional testing to identify an organism's DNA fingerprint, strain, or subtype. This information is used in public health

investigations to link cases and discover outbreaks, identify contaminated products, and prevent further illness.<sup>5</sup> Isolates can also be tested for antibiotic resistance, providing information to providers about treatment options and to public health investigators about emerging resistance patterns.<sup>5</sup>

The CDC found that nearly half of positive CIDTs reported to their FoodNet surveillance system in 2012-2013 were not confirmed by culture.<sup>4</sup> This could affect public health surveillance by limiting or delaying the ability to detect and solve outbreaks.<sup>4,5</sup> As a result, CDC is encouraging laboratories to do reflex culturing on positive CIDT results so this important information is available for public health surveillance.<sup>4,5</sup>

## Tests for Detecting Foodborne Illness

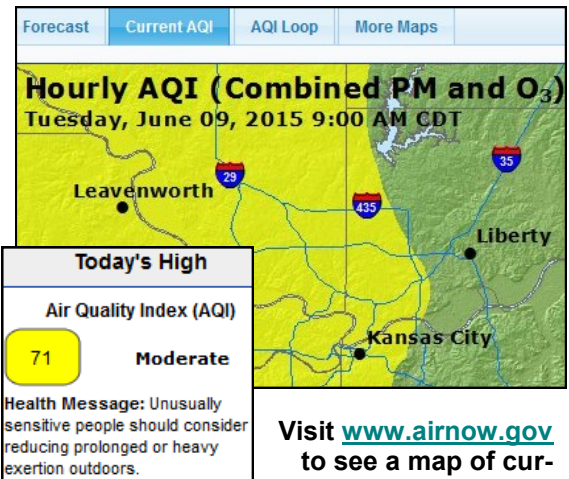
	Cultures	CIDTs
Accuracy rate	High	Low to High
Produces fast results		✓
Requires special knowledge to run	✓	
Produces isolates for subtyping	✓	
Produces isolates to test for antimicrobial susceptibility	✓	
May test for bacteria, viruses, and parasites at same time		✓
May be done at physician's office		✓

Source: CDC<sup>6</sup>

# Protect Health by Using the AQI

Air pollution is harmful to respiratory and cardiovascular health, particularly among children and teens, people with asthma or other lung diseases, and those with cardiovascular disease.<sup>7</sup> The Air Quality Index (AQI), provides information from the EPA on daily air pollution levels and possible health effects these levels may have.<sup>8</sup> The AQI is measured on a scale from 0 to 500 and color-coded according to health concern (see below).<sup>8,9</sup>

To avoid potentially harmful exposures to unhealthy air, check your local AQI before planning any outdoor exercise or activities, especially during the summer when ozone levels are highest.<sup>8-10</sup>



Visit [www.airnow.gov](http://www.airnow.gov) to see a map of current and forecasted air quality conditions in your area.

AQI	Level of Health Concern	
0 – 50	Good	No advisories, air pollution poses little or no risk.
51-100	Moderate	Air quality is acceptable, but may be a concern for those unusually sensitive to air pollution. These people may want to avoid exercise outdoors.
101-150	Unhealthy for Sensitive Groups	General public unlikely to be affected, but children and people with respiratory or heart disease should limit prolonged outdoor exertion.
151-200	Unhealthy	Everyone may begin to experience some adverse health effects. Sensitive groups should avoid outdoor exertion, and other groups should limit prolonged outdoor exertion.
201-300	Very Unhealthy	Everyone may experience serious health effects.
301-500	Hazardous	Entire population is likely to be affected; everyone should avoid all physical activity outdoors.

Source: EPA<sup>8</sup>, American Lung Association<sup>9</sup>

# Communicable Disease Report

## Notable this month:

GI and animal bite reporting continues to be higher than expected for this time of year. Other numbers reflect expected reporting for the month of May.

Reportable Diseases May 2015		YTD*						5 YR AVG†
		2015	2014	2013	2012	2011	2010	
Animal Bites	4	22	14	8	16	20	3	12
Gastrointestinal Diseases	6	19	8	18	8	10	5	10
Hepatitis	8	33	23	32	42	29	15	28
STD	6	20	21	17	42	17	29	25
Tuberculosis	5	11	16	33	13	13	7	16
Other	5	28	40	30	49	21	8	30
<b>TOTAL</b>	<b>34</b>	<b>133</b>	<b>122</b>	<b>138</b>	<b>170</b>	<b>110</b>	<b>67</b>	<b>121</b>

\*Year-to-date (counts reflect total cases January through MONTH 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>

## References

1. CDC. Traumatic Brain Injury in the United States: Fact Sheet. Jan 12, 2015. Retrieved 2015, Jun 9, from [http://www.cdc.gov/traumaticbraininjury/get\\_the\\_facts.html](http://www.cdc.gov/traumaticbraininjury/get_the_facts.html)
2. MO DHSS. MICA. Injury MICA. Retrieved 2015, Jun 7, from <http://health.mo.gov/data/mica/InjuryMICA/>
3. CDC. Traumatic Brain Injury: Prevention. Sep 13, 2013. Retrieved 2015, Jun 4, from <http://www.cdc.gov/traumaticbraininjury/prevention.html>
4. CDC. Bacterial Enteric Infections Detected by Culture-Independent Diagnostic Tests — FoodNet, United States, 2012–2014. MMWR 2015;64:252-7. [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6409a4.htm?s\\_cid=mm6409a4\\_w](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6409a4.htm?s_cid=mm6409a4_w)
5. CDC. Foodborne Illness and Culture-Independent Diagnostic Tests (CIDTs). May 14, 2015. Retrieved 2015, Jun 4, from <http://www.cdc.gov/foodnet/reports/cidt-questions-and-answers-2015.html>
6. CDC. Tests for Detecting Foodborne Illness. May 29, 2013. Retrieved 2015, Jun 4, from <http://www.cdc.gov/pulsenet/next-generation-images.html>
7. CDC. Air Quality: Public Health Issues. Nov 4, 2014. Retrieved 2015, Jun 4, from [http://www.cdc.gov/air/air\\_health.htm](http://www.cdc.gov/air/air_health.htm)
8. EPA. Air Quality Index (AQI) Basics. Mar 16, 2015. Retrieved 2015, Jun 4, from <http://airnow.gov/index.cfm?action=aqibasics.aqi>
9. American Lung Association. Air Quality Index: Using Air Quality Information to Protect Yourself from Outdoor Air Pollution. Retrieved 2015, Jun 4, from <http://www.lung.org/healthy-air/outdoor/air-quality-index.html>
10. CDC. Outdoor Air: Air Contaminants. Sep 16, 2013. Retrieved 2015, Jun 4, from <http://ephtracking.cdc.gov/showAirContaminants.action>

## Platte County Health Department

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### South

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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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