

Apr – 2005

EPI Gram is a monthly publication of the Stark County Public Health Coalition. It is a summary of provisional communicable disease reports and other key public health indicators in Stark County, Ohio. This report includes confirmed, probable and suspect cases. Some reportable conditions may be under investigation, and at any given time, data may fluctuate from month to month for a specific disease category.

Please refer to “Case Definitions for Infectious Conditions Under Public Health Surveillance,” MMWR (Morbidity and Mortality Weekly Report) 1997; 46 (No. RR-10), the Ohio Department of Health Infectious Disease Control Manual or visit [www.cdc.gov/epo/dphsi/casedef/index.htm](http://www.cdc.gov/epo/dphsi/casedef/index.htm) for case definitions.

**Table 1 – Summary of Select Reportable Diseases for Apr 2005 in Stark County, Ohio (provisional data only)**

	Alliance City Health			Canton City Health			Massillon City Health			Stark County Health			Stark County Totals			
	Apr 2005	YTD 2005	YTD 2004	Apr 2005	YTD 2005	YTD 2004	Apr 2005	YTD 2005	YTD 2004	Apr 2005	YTD 2005	YTD 2004	Apr 2005	YTD 2005	YTD 2004	5 Year annual average
Amebiasis													0	0	0	0.2
Campylobacteriosis				1	3				2	1	7	4	2	10	6	54.6
Creutzfeldt-Jakob Dis										1	1		1	1	0	0.4
Cryptosporidiosis					1							1	0	1	1	10
E Coli 0157													0	0	0	2.6
E Coli		1	2									1	0	1	3	1.8
Enceph., WNV													0	0	0	2.8
Enceph., Other												1	0	0	1	3.2
Giardiasis			1	1	2	2	1	2	1	1	8	13	3	12	17	54.6
Haemo. Influz., Bac					1	2					1	2	0	2	4	4.6
Hepatitis A											2	1	0	2	1	10
Hepatitis B*	2	5	3	3	12	9	1	1	3	1	7	11	7	25	26	62.5
Hepatitis C*	2	12	6	13	48	50	2	10	6	8	40	43	25	110	105	340**
Kawasaki Syndrome		1										1	0	1	1	3
Legionellosis				1	2						1		1	3	0	9
Listeriosis													0	0	0	1.4
Lyme Disease											1	3	0	1	3	2.8
Malaria											1		0	1	0	1
Meningitis, Asep		1			1	2					2		0	4	2	52.6
Meningitis Bac.												1	0	0	1	4.4
Meningococcal Dis.			1									2	0	0	3	2.8
Pertussis	3	6		1	3					7	13	1	11	22	1	7.2
Salmonellosis			1	1	3	2		1		4	7	5	5	11	8	47.4
Shigellosis						1					1		0	1	1	11.6
Strep Inv A GAS		1				2				1	2	2	1	3	4	10.2
Strep B Newborn					1	1							0	1	1	1.4
Strep Pneu ISP	2	4	3	4	8	7	3	3	1	3	18	14	12	33	25	25
Strep TSS												2	0	0	2	0.6
Typhoid Fever			1										0	0	1	0.2
Varicella													0	0	0	**
Vibriosis													0	0	0	0.2
Yersinosis													0	0	0	0.8

\*This includes all hepatitis reports; acute, chronic, and status not known. \*\*Incomplete 5 yr average due to a change in reporting requirements.

**Table 2 Summary of Air Quality Index, Pollen, and Mold Counts for Stark County, Ohio, April 2005, including limited historical data.**

	April 2005			April 2004			May 2004
	Monthly High	Monthly Low	Monthly Mean	Monthly High	Monthly Low	Monthly Mean	Monthly Mean
Pollen Count	1530	5	306	1030	0	229*	344
Mold Count	3900	320	2021	5860	235	2076	5698
Air Quality Index	86	27	48	46	23	36	52

Pollen and Mold counts are derived from rotorod samples on the 2<sup>nd</sup> story roof of Canton City Hall. The readings are taken from a 24 hour period/24 hour avg. on all work days.

The Air Quality Index (AQI) is derived by comparison to EPA standards from the following readings: Particulate Matter 10, Particulate Matter 2.5 continuous on CCHD 2<sup>nd</sup> floor roof top; Sulfur Dioxide at Malone College; and ozone monitors in Canton, Brewster, Alliance, and Middlebranch. This index is produced from March to October. AQI ratings are 151-200: unhealthy; 101-150: unhealthy for sensitive groups; 51-100: moderate; 0-50: good.

**Table 3 Summary of Select Vital Statistics for Stark County, Ohio**

	Alliance City Health District			Canton City Health District			Massillon City Health District			Stark County Health District			Total in Stark County		
	Apr	YTD 2005	2004	Apr	YTD 2005	2004	Apr	YTD 2005	2004	Apr	YTD 2005	2004	Apr	YTD 2005	2004
Number of Live Births*	30	131	384	320	1426	4081			4	10	56	223	360	1613	4692
Number of Teenage births*	6	20	65	31	132	379				2	6	39	39	158	483
Number of Deaths*	38	150	326	169	886	1928	37	163	389	78	491	1266	322	1690	3909

\*These numbers represent occurrences within the jurisdiction and are not indicative of births and deaths of residents of each jurisdiction, therefore jurisdictional rates are not computed.

The 2002 Birth Rate for Stark County was 0.01266, 0.10262 for 2003 and 0.01243 for 2004. The 2002 Death Rate for Stark County was 0.01091, 0.0111 for 2003 and 0.0104 for 2004 (crude rates are based on US Census 2000 Stark County population of 377,438).

## **IN THE NEWS:**

### **Community Acquired-Methicillin-resistant *Staphylococcus aureus* (CA-MRSA)**

**What is MRSA?** Some staph bacteria are resistant to antibiotics. MRSA is a type of staph that is resistant to antibiotics called beta-lactams. Beta-lactam antibiotics include methicillin and other more common antibiotics such as oxacillin, penicillin and amoxicillin. While 25% to 30% of the population is colonized with staph, approximately 1% is colonized with MRSA.

**What is CA-MRSA?** Staph and MRSA can cause illness in persons outside of hospitals and healthcare facilities. MRSA infections that are acquired by persons who **have not** been recently (within the past year) hospitalized or had a medical procedure (such as dialysis, surgery, catheters) are known as CA-MRSA infections. Staph or MRSA infections in the community are usually manifested as skin infections, such as pimples and boils, and occur in otherwise healthy people.

**What settings has CA-MRSA been found?** CDC has investigated clusters of CA-MRSA skin infections among athletes, military recruits, children, Pacific Islanders, Alaskan Natives, Native Americans, men who have sex with men, and prisoners. Factors that have been associated with the spread of MRSA skin infections include close skin-to-skin contact, openings in the skin such as cuts or abrasions, contaminated items and surfaces, crowded living conditions, and poor hygiene.

**What are the clinical features of CA-MRSA?** CA-MRSA most often presents as skin or soft tissue infection such as a boil or abscess. Patients frequently recall a "spider bite". The involved site is red, swollen, and painful and may have pus or other drainage. Staph infections also can cause more serious infections, such as blood stream infections or pneumonia, leading to symptoms of shortness of breath, fever, and chills.

**What is the main way that staph or MRSA is transmitted in the community?** The main mode of transmission of staph and/or MRSA is via hands which may become contaminated by contact with a) colonized or infected individuals, b) colonized or infected body sites of other persons, or c) devices, items, or environmental surfaces contaminated with body fluids containing staph or MRSA. Other factors contributing to transmission include skin-to-skin contact, crowded conditions, and poor hygiene.

**How are CA-MRSA infections treated?** Staph skin infections, such as boils or abscesses, may be treated by incision and drainage, depending on severity. Antibiotic treatment, if indicated, should be guided by the susceptibility profile of the organism.

**How do CA-MRSA and HA-MRSA (hospital acquired) strains differ?** Recently recognized outbreaks of MRSA in community settings have been associated with strains that have some unique microbiologic and genetic properties compared with the traditional hospital-based MRSA strains, suggesting some biologic properties (e.g., virulence factors) may allow the community strains to spread more easily or cause more skin disease. Additional studies are underway to characterize and compare the biologic properties of HA-MRSA and CA-MRSA strains.

There are at least three different *S. aureus* strains in the United States that can cause CA-MRSA infections. CDC continues to work with state and local health departments to gather organisms and epidemiologic data from known cases to determine why certain groups of people get these infections.

**Are MRSA infections a reportable disease?** Yes, MRSA is a Class C reportable disease in the State of Ohio. If an unusual incidence or outbreak is identified or suspected, then the Health Department should be notified by the end of the next working day.

**Have there been recent outbreaks in the Stark County area.** Yes, MRSA has been identified in two community settings. The first was in a 17 to 22 year old population that received tattoos. The tattoo artist was illegally operating and has been ordered to cease and desist operations. Since the order no new cases have been identified. The other setting is in a court ordered holding facility where close contact, personal hygiene, and imported cases were suspected as being the source of the spread of the disease.

If you have any questions, including how to receive other copies of this report, please contact Matt Tillapaw at (330) 493-9928 x287 or [Tillapawm@starkhealth.org](mailto:Tillapawm@starkhealth.org) or Christina Henning at (330) 489-3454 or [Henningc@cantonhealth.org](mailto:Henningc@cantonhealth.org).