

**MICROBIOLOGY SECTION – MILWAUKEE HEALTH DEPARTMENT**

**MONTHLY REPORT**

October 2007 Vol. 12, No. 10

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**MICROBIOLOGY REPORT:** The October 2007 issue of Microbiology Monthly Report, Volume 12, presents the laboratory diagnosis of some of the infectious diseases, the reference microbiology work done in this laboratory during September 2007 and new cases of syphilis in Milwaukee during August 2007. Information on the laboratory diagnosed mycobacterial infections in Wisconsin during August is also included.

**Legionnaires Disease (September 2007)**

No positive case(s) detected.

**Pertussis (Whooping cough) September 2007**

No positive case(s) detected.

**Syphilis (September 2007)**

Test	Number Positive	Test	Number Positive
RPR	0	TP-PA	9
VDRL	18	DARKFIELD	0

**New Cases of Syphilis**

The Wisconsin Division of Health has reported 7 new cases (early stages) of syphilis during August 2007 in Milwaukee. The median age of early syphilis cases is 37 years (range: 16 - 52 years). Morbidity distributions of the disease reported in this and the corresponding month of the previous year are as follows:

**New Cases of Syphilis (August 2007 and August 2006)**

Stage	Number of Cases	
	August 2007	August 2006
Primary syphilis	3	2
Secondary syphilis	1	4
Early latent	3	5
Late latent	0	1
Total	7	12

**Gonorrhea (September 2007)**

Number Tested	Decreased Susceptibility (DS) / Resistance (R) Antibiotics			
	Ciprofloxacin	Ceftriaxone	Spectinomycin	Azithromycin
151	11 I ; 12 R	0	0	1 DS

**Gonorrhea from Other Sources (Aurora Consolidated Labs) September 2007**

Number Tested	Decreased Susceptibility (DS) / Resistance (R) Antibiotics			
	Ciprofloxacin	Ceftriaxone	Spectinomycin	Azithromycin
3	0	0	0	0

**Isolates Other Than *N. gonorrhoeae* (September 2007)**

Organism	Site	Number Isolates	Organism	Site	Number Isolates
<i>Ureaplasma urealyticum</i>	Genital	0	<i>Mycoplasma hominis</i>	Genital	0

**Enteric Pathogens Identified (September 2007)**

Age	Sex	Pathogen	Number Cases
14	F	<i>Cryptosporidium sp.</i>	1
3	M	<i>Giardia lamblia</i>	1
11	F	<i>Giardia lamblia</i>	1
40	M	<i>Giardia lamblia</i>	1
40	F	<i>Giardia lamblia</i>	1
13	F	<i>Blastocystis hominis</i>	1
36	M	<i>Blastocystis hominis</i>	1
6	M	<i>Entamoeba coli</i>	1
38	F	<i>Entamoeba coli</i>	1
25	F	<i>Entamoeba coli</i>	1
51	F	<i>Entamoeba coli</i>	1
16	F	<i>Entamoeba coli</i> <i>Giardia lamblia</i>	1
32	F	<i>Entamoeba coli</i> <i>Strongyloides stercoralis</i>	1
12	F	<i>Entamoeba coli</i> <i>Iodamoeba buetschlii</i>	1
23	F	<i>Blastocystis hominis</i> <i>Trichuris trichiura</i> <i>Entamoeba coli</i>	1
8	M	<i>Giardia lamblia</i> Hookworm <i>Strongyloides stercoralis</i>	1
15	F	Hookworm	1
10	F	Hookworm	1

**Reference Cultures (September 2007)**

Age	Sex	Source	Culture Identification
50	F	Other	<i>Acinetobacter sp</i>
50	F	Blood	<i>Bacillus megaterium</i>
23	M	Surface wound	<i>Bacillus megaterium</i>
34	M	Stool	<i>Campylobacter sp</i>
31	F	Stool	<i>Escherichia coli</i>
83	M	Blood	<i>Lactococcus lactis</i>
21	F	Cervix	<i>Neisseria meningitidis</i>
22	M	Throat	<i>Neisseria meningitidis</i>
47	F	Vaginal	<i>Neisseria gonorrhoeae</i>
32	M	Rectum	<i>Neisseria gonorrhoeae</i>
20	F	Vaginal	<i>Neisseria gonorrhoeae</i>
28	M	Other	<i>Neisseria weaveri</i>

44	M	Urine	<i>Oligella urethralis</i>
51	M	Tissue, L chest	<i>Rhodococcus equi</i>
56	F	Stool	<i>Salmonella anatum</i>
63	F	Stool	<i>Salmonella bovismorbificans</i>
52	M	Stool	<i>Salmonella enteritidis</i>
16	F	Stool	<i>Salmonella enteritidis</i>
57	M	Stool	<i>Salmonella hadar</i>
8	M	Stool	<i>Salmonella java</i>
68	M	Urine	<i>Salmonella</i> Group B monophasic 'i'
9	F	Stool	<i>Salmonella</i> Group B monophasic 'i'
8	M	Stool	<i>Salmonella</i> Group B monophasic 'i'
44	M	Stool	<i>Salmonella montevideo</i>
4	F	Stool	<i>Salmonella norwich</i>
37	F	Stool	<i>Salmonella newport</i>
22	M	Blood	<i>Salmonella typhi</i>
34m	M	Stool	<i>Shigella sonnei</i>
3	M	Stool	<i>Shigella sonnei</i>
5	M	Stool	<i>Shigella sonnei</i>
6	M	Stool	<i>Shigella sonnei</i>
4	F	Stool	<i>Shigella sonnei</i>
33m	M	Stool	<i>Shigella sonnei</i>
3	F	Stool	<i>Shigella sonnei</i>
5	F	Stool	<i>Shigella sonnei</i>
4	F	Stool	<i>Shigella sonnei</i>
3	F	Stool	<i>Shigella sonnei</i>
62	M	Stool	<i>Shigella sonnei</i>
3	F	Stool	<i>Shigella sonnei</i>
18	F	Stool	<i>Shigella sonnei</i>
21	F	Stool	<i>Shigella sonnei</i>
4	M	Stool	<i>Shigella sonnei</i>
20m	M	Stool	<i>Shigella sonnei</i>
23	F	Stool	<i>Shigella sonnei</i>
6	F	Stool	<i>Shigella sonnei</i>
31	F	Stool	<i>Shigella sonnei</i>
80	M	Blood	<i>Streptococcus anginosus</i> group

#### Bacterial Enteric Pathogens (September 2007)

Age	Sex	Pathogen	Age	Sex	Pathogen
25	F	<i>Shigella sonnei</i>	24	F	<i>Shigella sonnei</i>
4	F	<i>Shigella sonnei</i>	20m	F	<i>Shigella sonnei</i>
7	F	<i>Shigella sonnei</i>			

**Antimicrobial Susceptibility of *Shigella sonnei* Associated with 2007 Outbreak (September 2007)**

Number Tested	Decreased Susceptibility (DS) / Resistance (R) Antibiotics					
	SXT	NOR	C	GM	AM	TE
24	15	0	0	0	21	0

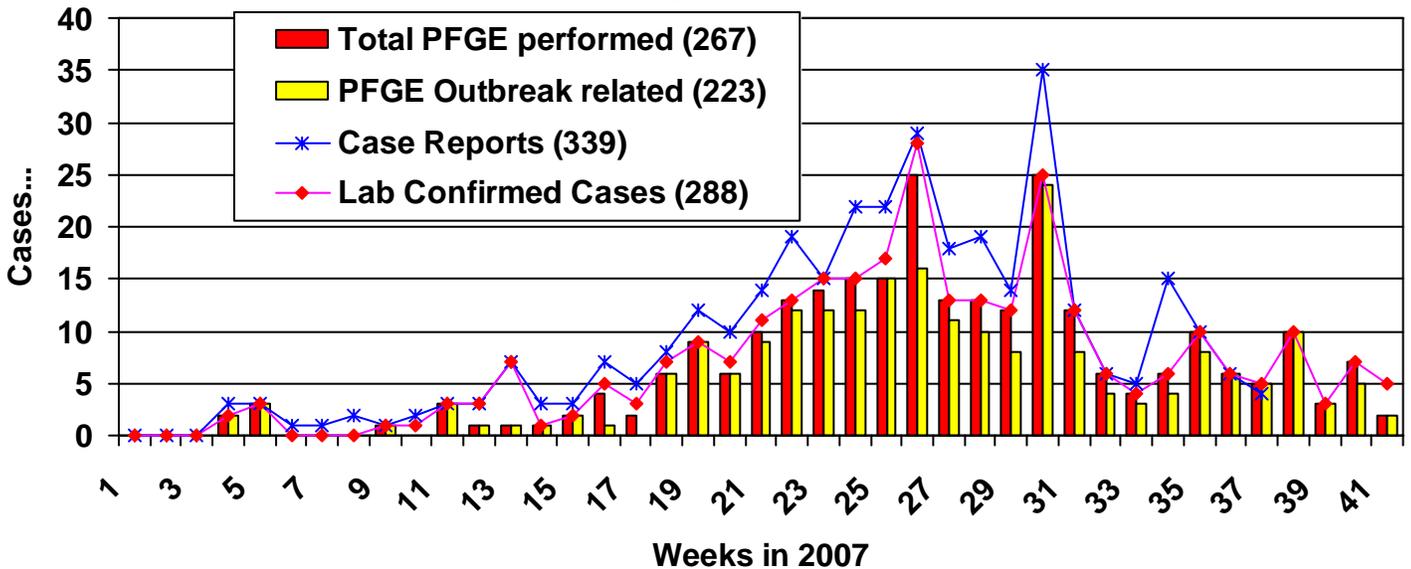
AM = Ampicillin  
 C=Chloramphenicol  
 SXT=Sulfamethoxazole/trimethoprim  
 TE=Tetracycline  
 GM=Gentamicin  
 NOR=Norfloxacin

City of Milwaukee Health Department Laboratory

*Shigella sonnei* 2007 Outbreak for week # 42 (10/15/07 – 10/19/07)

For Week #42 (10/15/07 to 10/19/07), MHD Laboratory has confirmed 12 stool samples positive for *Shigella sonnei*.

**Lab Report for *Shigella sonnei* 2007 Outbreak (Through week # 41)**



## ***E. Coli* O157:H7 – Cargill Hamburger Patty Recall Investigation**

**Nationally:** USDA announced on 10/6 that Cargill Meat Solutions Corporation was voluntarily recalling approximately 845,000 pounds of frozen ground beef patties produced at its Butler, Wis., location due to contamination with *E. coli* O157:H7. According to the CDC, 33 cases of *E. coli* O157:H7 associated with eating the hamburger have been identified in 10 states, Wisconsin and New York are tied for the most cases (4) each, followed by Ohio (2).

A PulseNet WebBoard search revealed 4 isolates from WI and 40 isolates from 11 other states isolated in the past 60 days that are associated with this outbreak. **Locally:** PFGE has been performed on 6 isolates with 2 matching the PFGE pattern associated with this outbreak.

**Wisconsin:** 4 cases are confirmed as being part of the outbreak including cases in Milwaukee (2), Waukesha (1), and Appleton (1)

**Milwaukee County:** Two City of Milwaukee cases have been confirmed via epidemiological investigation and PFGE testing, both cases are in MU students who attended a women’s soccer cook out. A third highly probably case is linked via epidemiologic investigation but PFGE testing is till pending, hence it is not included in the official Wisconsin numbers.

<b><i>E. Coli</i> O157:H7 – Cargill Hamburger Patty Recall Epi Information</b>				
	<b>City of Milwaukee</b>	<b>Milwaukee County</b>	<b>WI</b>	<b>National</b>
# of Cases	2 *	2	4	33
# of States/Counties/ Municipalities Affected	N/A	1	3	10
Hospitalizations	1	1	1	No Info

\*An additional highly probable case is epi-linked, but doesn’t have PFGE confirmation

## ***Salmonella* I,4,[5],12,i- – ConAgra Foods’ Pot Pie Recall Investigation**

**NATIONALLY:** ConAgra Foods voluntarily stopped production on 10/9/07 at the Missouri plant that makes its Banquet pot pies after health officials said the pies may be linked to 139 cases of salmonella in 30 states, including 23 that required hospitalization. Wisconsin had the most cases (19), followed by Pennsylvania (13). The USDA said the Marshall, Mo., plant made Banquet and generic store brand pot pies. All of the pot pies made at the plant in question have “P-9” printed on the side of the box as part of a code above the use-by date

**WISCONSIN:** The counties where the cases have occurred include Brown, Buffalo, Calumet, Fond du Lac, La Crosse, Langlade, Marathon, Milwaukee, Vernon, Walworth, Waukesha and Winnebago.

**LOCALLY-MILWAUKEE:** Through 10/16/07 59 locations have been checked and product found available for sale in the freezers in 31 of those locations. A total of 843 products have been found in the 31 stores where the product was available for sale. On October 11, 2007, ConAgra Foods agreed to voluntarily recall the product, including it Albertson’s, Food Lion, Great Value, Hill Country Fare, Kirkwood, Kroger, Meijer, and Western Family brands.

<b><i>Salmonella</i> I,4,[5],12,i- – ConAgra Foods’ Pot Pie Recall</b>				
	<b>City of Milwaukee</b>	<b>Milwaukee County</b>	<b>WI</b>	<b>National</b>
# of Cases	2	3	21	181
# of States/Counties/ Municipalities Affected	N/A	2	14	33
Hospitalizations	No Info	No Info	3	33

**Laboratory Diagnosed Mycobacterial Infections in Wisconsin during August 2007**

<i>Mycobacterium</i> species		Brown	Dane	Eau Claire	Kenosha	La Crosse	Marathon	Milwaukee	Outagamie	Racine	Rock	Trempealeau	Washington	Waukesha	Winnebago	Wood	TOTALS
<i>M. tuberculosis</i> complex	Pulm		1					2				1					4
	Extra							3								1	4
<b>Total <i>M. tuberculosis</i> complex</b>		<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>8</b>
<i>M. avium</i> complex	Pulm		3		1	3		36	1	1	1		1		3	2	52
	Extra							1									1
<i>M. goodii</i>	Pulm	1	3	1			1	12					1	1		2	22
	Extra																0
<i>M. abscessus</i>	Pulm					1		3									4
	Extra															1	1
<i>M. chelonae</i>	Pulm	1	1			2		3								1	6
	Extra															1	3
<i>M. fortuitum</i> group	Pulm		2		1			1									4
	Extra																0
<i>M. kansasii</i>	Pulm		2	1											1		4
	Extra																0
<i>M. marinum</i>	Pulm																0
	Extra																0
<i>M. mucogenicum</i>	Pulm							2									2
	Extra							2									2
<i>M. xenopi</i>	Pulm							7						1			8
	Extra																0
<i>M. scrofulaceum</i>	Pulm							1									1
<i>M. immunogenum</i>	Pulm								1								1
<b>TOTALS</b>		<b>2</b>	<b>11</b>	<b>2</b>	<b>2</b>	<b>6</b>	<b>1</b>	<b>68</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>4</b>	<b>7</b>	<b>111</b>

**Extra-Pulmonary Sources of Isolation:**

<i>M. tuberculosis</i> Extra-pulmonary:	1 stool ( <i>M. bovis</i> ), 1 urine, 1 thoracic fluid, 1 pleural fluid
<i>M. avium</i> complex Extra pulmonary:	1 nasal
Other <i>Mycobacterium</i> species	<i>M. abscessus</i> : 1 blood; <i>M. chelonae</i> : 1 eye, 2 arm abscess; <i>M. mucogenicum</i> : 1 ankle, 1 catheter

***M. tuberculosis* complex First-Line Drug Susceptibility Testing\*:**

<b>Drug Resistance</b>	<b>Number of Isolates</b>
Susceptible to all first-line drugs	5
Resistant to PZA, PZA indeterminant, or PZA pending	2 <sup>#</sup>
Multi-drug resistant	1 <sup>§</sup>
<b>TOTAL</b>	<b>8</b>

(\*): Drugs tested: isoniazid = INH (0.2 ug/ml and 1.0 ug/ml), rifampin (1.0 ug/ml), ethambutol (5.0 ug/ml), and pyrazinamide = PZA (100 ug/ml)

(#): 1 isolate was *M. bovis*

(§) Isolate was resistant to all first line drugs (INH, rifampin, ethambutol, and PZA).

Source: Mycobacteriology Laboratory Network Data Report, Wisconsin State Laboratory of Hygiene, Madison, WI

## SUMMARY OF CONFIRMED INFECTIONS

Virology & Molecular Diagnostic Section  
City of Milwaukee Health Department Laboratory  
(414) 286-3526

WEBSITE: [www.milwaukee.gov/healthlab](http://www.milwaukee.gov/healthlab) October 2007 ISSUE # 1222

### September 2007 Data

Agent	No. of Isolates	Age	Sex	Specimen	Symptoms
Adenovirus	1	9 mo	F	NP Referred isolate	NA
Coxsackie B1	1	2 wk	M	NP Referred Isolate	NA
Enterovirus, NOS	1	8 wk	M	CSF	Autopsy
Parainfluenza 3	1	2 mo	M	NP Lung swab	Autopsy
Parainfluenza 3	1	2 mo	M	Lung swab	Autopsy
Parechovirus 1 (formerly Echovirus 22)	1	4 mo	M	Colon swab	Autopsy
Rhinovirus	1	4 mo	M	NP Referred isolate	NA
Rhinovirus	1	3 mo	F	NP Referred isolate	NA
Rhinovirus	1	7 mo	M	NP Referred isolate	NA
Herpes simplex, type 1	10				
Herpes simplex, type 2	8				

\*N/A – Not Available

Agent	Method	Tested	Positive	% Positive
<i>Chlamydia trachomatis</i>	ProbeTec	585	73	12.5%
<i>Neisseria gonorrhoeae</i>	ProbeTec/GenProbe	781	95	12.2%
Mumps virus	EIA	31	0	0%
Enterovirus	Real-time RT-PCR	13	4	30.8%
Influenza	Real-time RT-PCR	2	0	0%
HSV	Real-time PCR	3	0	0%
Adenovirus	Real-time PCR	2	1	50%
Parainfluenza	Real-time RT-PCR	2	2	100%
Parechovirus	Real-time RT-PCR	1	0	0%

### Important News

The following new Real-time PCR-based tests are now being offered by the City laboratory:

- 1) Respiratory Syncytial Virus (RSV)
- 2) Adenovirus
- 3) Parainfluenza virus

### Discontinuation of Tests:

As of July 10, 2007, the City lab will no longer offer *Legionella* IFA serology.



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