MICROBIOLOGY SECTION – MILWAUKEE HEALTH DEPARTMENT

M O N T H L Y R E P O R T

July 2007 Vol. 12, No. 7 **AjaibSingh, D.V.M., Ph. D.**

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

Legionnaires Disease (June, 2007)

No positive case was detected.

Pertussis (Whooping cough) June 2007

No positive case was detected.

Syphilis (June 2007)

Test	Number Positive	Test	Number Positive
RPR	2	FTA-ABS	12
VDRL	23	DARKFIELD	0

New Cases of Syphilis

The Wisconsin Division of Health has reported 9 new cases (early stages) of syphilis during May 2007 in Milwaukee. The median age of early syphilis cases is 33 years (range: 18-45 years). Morbidity distributions of the disease reported in this and the corresponding month of the previous year are as follows:

New Cases of Syphilis (May 2007 and May 2006)

Stage	Number of Cases	
	May 2007	May 2006
Primary syphilis	0	0
Secondary syphilis	4	6
Early latent	3	2
Late latent	0	1
Total	7	9

Gonorrhea (June 2007)

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

Gonorrhea from Other Sources (Aurora Consolidated Labs) June 2007

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

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

Organism	Site	Number Isolates	Organism	Site	Number Isolates
Ureaplasma urealyticum	Genital	0	*Mycoplasma hominis*	Genital	1

Parasitic Enteric Pathogens (June 2007)

Age	Sex	Parasite	Number Cases
17	F	*Iodamoeba butschlii* *Blastocystis hominis*	1
19	M	*Giardia lamblia*	1
20	M	*Blastocystis hominis*	1
5	F	*Blastocystis hominis*	1

Mycobacterial Infections (June 2007)

Age	Sex	Test Results			Identification
		Sputum Smear	Culture	DNA Probe	
50	M	+	+	+	*M. tuberculosis* complex
					M. avium complex
27	M	-	+	ND	*M. xenopi*
32	M	-	+	ND	*M. mucogenicum*
		-	+	+	*M. avium* complex
45	M	-	+	+	*M. avium* complex
79	F	-	+	+	*M. avium* complex
67	M	-	+	+	*M. avium* complex
63	M	-	+	+	*M. avium* complex
76	M	+	+	+	*M. avium* complex
47	M	+	+	+	*M. avium* complex

Reference Cultures (June 2007)

Age	Sex	Source	Culture Identification
39	M	Blood	*Burkholderia gladioli*
82	M	Urine	*Alcaligenes xylosoxidans subsp. Xylosoxidans*
70	M	Surface wound	*Moraxella nonliquefaciens*
66	M	Blood	*Streptococcus salivarius sp/gp*
UNK	UNK	Urine	*Bacillus species,* NOT *Bacillus anthracis*
18	F	Blood	*Fusobacterium necrophorum*
		Blood	*Fusobacterium necrophorum*
34	M	Maxillary sinus	*Pseudomonas alcaligenes*
71	F	Sputum	*Corynebacterium striatum*

Bacterial Enteric Pathogens (June 2007)

Age	Sex	Pathogen	Age	Sex	Pathogen
47	M	*Salmonella* group B	69	F	*Salmonella (Group B) typhimurium*
39	F	*Salmonella* (Group C1) *hartford*			*Salmonella (Group B) typhimurium*
2m	F	*Salmonella* (Group C2) *newport*	3	M	*Salmonella subsp. I;serogroup B; I, monophasic*
18m	F	*Salmonella (Group C2) muenchen*	69	F	*Salmonella (Group B) typhimurium*
12m	M	*Salmonella* (Group D1) *enteritidis*	37	F	*Salmonella (Group C1) infantis*
		Salmonella (Group D1) *enteritidis*	48	F	*Salmonella (Group C1) infantis*
28	F	*Salmonella* (Group D1) *enteritidis*	51	F	*Salmonella* group C1
37	M	*Escherichia coli* O157:H7	28	F	Salmonella *(Group D1)* enteritidis
37	M	*Escherichia coli* O157:H7	6	F	*Shigella* (Group D) *sonnei*
37	M	*Escherichia coli* O157:H7	5	M	*Shigella* (Group D) *sonnei*
4	F	*Shigella* (Group D) *sonnei*	6	M	*Shigella* (Group D) *sonnei*
27m	M	*Shigella* (Group D) *sonnei*	34m	M	*Shigella* (Group D) *sonnei*
8	F	*Shigella* (Group D) *sonnei*	49	F	*Shigella* (Group D) *sonnei*
3	F	*Shigella* (Group D) *sonnei*	16m	F	*Shigella* (Group D) *sonnei*
8	F	*Shigella* (Group D) *sonnei*	4	M	*Shigella* (Group D) *sonnei*
16m	F	*Shigella* (Group D) *sonnei*	21	F	*Shigella* (Group D) *sonnei*
3	F	*Shigella* (Group D) *sonnei*	23	M	*Shigella* (Group D) *sonnei*
25m	M	*Shigella* (Group D) *sonnei*	8	F	*Shigella* (Group D) *sonnei*
4	F	*Shigella* (Group D) *sonnei*	27M	M	*Shigella* (Group D) *sonnei*
4	F	*Shigella* (Group D) *sonnei*	5	M	*Shigella* (Group D) *sonnei*
27m	M	*Shigella* (Group D) *sonnei*	7	F	*Shigella* (Group D) *sonnei*

Age	Sex	Pathogen	Age	Sex	Pathogen
6	M	*Shigella* (Group D) *sonnei*	6	F	*Shigella* (Group D) *sonnei*
4	M	*Shigella* (Group D) *sonnei*	61	M	*Shigella* (Group D) *sonnei*
6	F	*Shigella* (Group D) *sonnei*	28	F	*Shigella* (Group D) *sonnei*
27m	M	*Shigella* (Group D) *sonnei*	22	F	*Shigella* (Group D) *sonnei*
4	M	*Shigella* (Group D) *sonnei*	5	F	*Shigella* (Group D) *sonnei*
5	F	*Shigella* (Group D) *sonnei*	22m	M	*Shigella* (Group D) *sonnei*
29	F	*Shigella* (Group D) *sonnei*	25m	F	*Shigella* (Group D) *sonnei*
36	F	*Shigella* (Group D) *sonnei*	3	F	*Shigella* (Group D) *sonnei*
3	F	*Shigella* (Group D) *sonnei*	9	M	*Shigella* (Group D) *sonnei*
18m	M	*Shigella* (Group D) *sonnei*	49	M	*Shigella* (Group D) *sonnei*
34m	F	*Shigella* (Group D) *sonnei*	6	M	*Shigella* (Group D) *sonnei*
6	M	*Shigella* (Group D) *sonnei*	6	F	*Shigella* (Group D) *sonnei*
21	M	*Shigella* (Group D) *sonnei*	27	F	*Shigella* (Group D) *sonnei*
22m	M	*Shigella* (Group D) *sonnei*	9	M	*Shigella* (Group D) *sonnei*
5	F	*Shigella* (Group D) *sonnei*	6	F	*Shigella* (Group D) *sonnei*
28	F	*Shigella* (Group D) *sonnei*	31m	M	*Shigella* (Group D) *sonnei*
20m	M	*Shigella* (Group D) *sonnei*	3	F	*Shigella* (Group D) *sonnei*
5	F	*Shigella* (Group D) *sonnei*	3	M	*Shigella* (Group D) *sonnei*
28	F	*Shigella* (Group D) *sonnei*	37	F	*Shigella* (Group D) *sonnei*
20m	M	*Shigella* (Group D) *sonnei*	4	F	*Shigella* (Group D) *sonnei*
31	M	*Shigella* (Group D) *sonnei*	29m	M	*Shigella* (Group D) *sonnei*
6	F	*Shigella* (Group D) *sonnei*	6	F	*Shigella* (Group D) *sonnei*
4	M	*Shigella* (Group D) *sonnei*	4	F	*Shigella* (Group D) *sonnei*
11	F	*Shigella* (Group D) *sonnei*	5	F	*Shigella* (Group D) *sonnei*
30m	F	*Shigella* (Group D) *sonnei*	6	F	*Shigella* (Group D) *sonnei*
9	M	*Shigella* (Group D) *sonnei*	5	-	*Shigella* (Group D) *sonnei*
6	M	*Shigella* (Group D) *sonnei*	6	F	*Shigella* (Group D) *sonnei*
3	M	*Shigella* (Group D) *sonnei*	4	F	*Shigella* (Group D) *sonnei*
4	F	*Shigella* (Group D) *sonnei*	17m	F	*Shigella* (Group D) *sonnei*
22	F	*Shigella* (Group D) *sonnei*	6	F	*Shigella* (Group D) *sonnei*
6	F	*Shigella* (Group D) *sonnei*	9	M	*Shigella* (Group D) *sonnei*
5	M	*Shigella* (Group D) *sonnei*	30	F	*Shigella* (Group D) *sonnei*
6	F	*Shigella* (Group D) *sonnei*	22m	M	*Shigella* (Group D) *sonnei*
6	F	*Shigella* (Group D) *sonnei*	7	F	*Shigella* (Group D) *sonnei*
9	M	*Shigella* (Group D) *sonnei*	31	M	*Shigella* (Group D) *sonnei*
6	M	*Shigella* (Group D) *sonnei*			

Laboratory Diagnosed Mycobacterial Infections in Wisconsin during May 2007

***Mycobacterium* species**		**Brown**	**Dane**	**Eau Claire**	**Kenosha**	**La Crosse**	**Marathon**	**Milwaukee**	**Outagamie**	**Racine**	**Washington**	**Waukesha**	**Winnebago**	**Wood**	**TOTALS**
M. tuberculosis complex	Pulm														**0**
	Extra														**0**
Total *M. tuberculosis* complex		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
M. avium complex	Pulm	2	7		2			55	1		1	3		2	**73**
	Extra							3							**3**
M. gordonae	Pulm	1	5	2			1	10	2				1	1	**23**
	Extra														**0**
M. abscessus	Pulm							5					1		**6**
	Extra														**0**
M. chelonae	Pulm							1							**1**
	Extra		1					3						1	**5**
M. fortuitum group	Pulm							4					1	1	**6**
	Extra		1					1						1	**3**
M. kansasii	Pulm							1							**1**
	Extra														**0**
M. marinum	Pulm														**0**
	Extra							2							**2**
M. mucogenicum	Pulm							1							**1**
	Extra							1							**1**
M. xenopi	Pulm							4		1					**5**
	Extra														**0**
M. chelonae/abscessus	Pulm														**0**
	Extra					1									**1**
TOTALS		**3**	**14**	**2**	**2**	**1**	**1**	**91**	**3**	**1**	**1**	**3**	**3**	**6**	**131**

Extra-Pulmonary Sources of Isolation:

M. avium complex Extra-pulmonary:	1 blood, 1 urine, 1 ankle
Other *Mycobacterium* species:	*M. chelonae*: 2 foot, 1 chest, 1 scalp, 1 skin; M. *chelonae/abscessus*: 1 skin; M. *fortuitum* group: 1 foot, 1 breast, 1 stool; *M. marinum*: 2 finger; *M. mucogenicum*: 1 blood

M. tuberculosis complex First-Line Drug Susceptibility Testing*

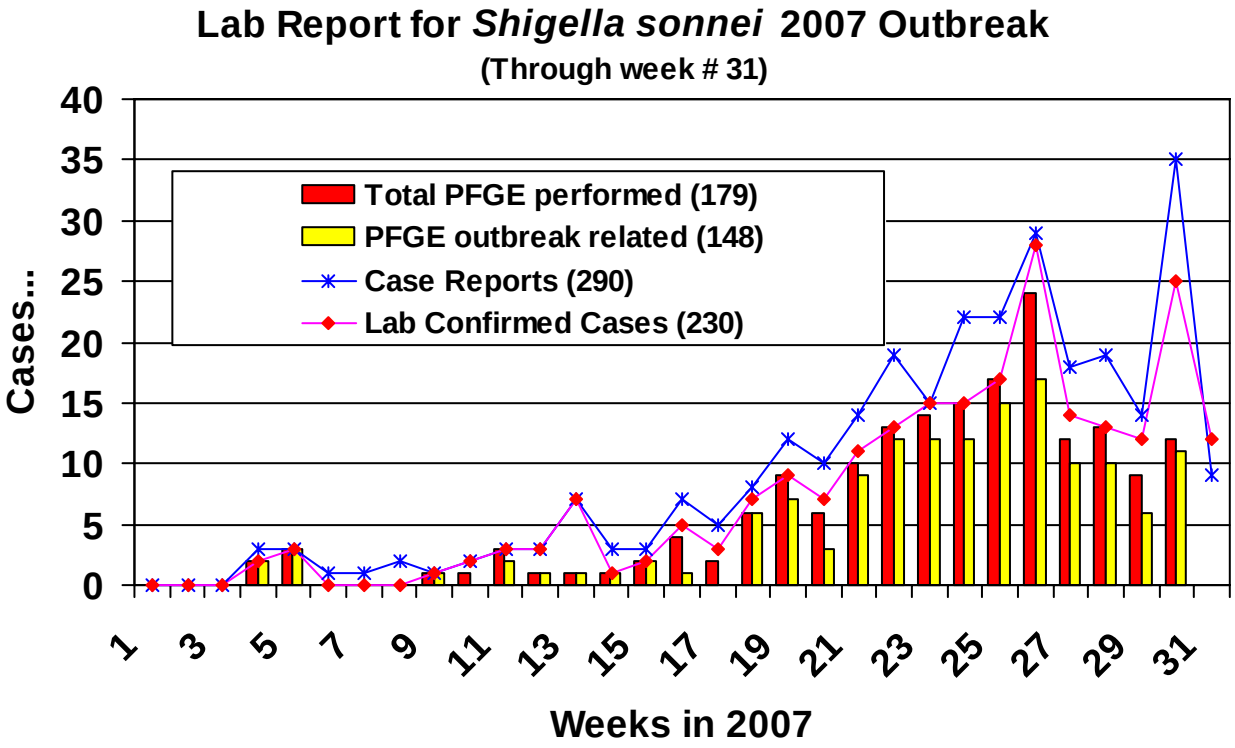
In May 2007, isolation of *M. tuberculosis* was not reported by the participating laboratories and thus, antimicrobial susceptibility tests were not performed.

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

The City of Milwaukee Health Department (MHD) continues the investigation of a six-fold increase in shigellosis cases compared to the same period in 2006. Latest figures show that MHD has confirmed 290 cases (230 confirmed by the City Lab) through week 31 of 2007.

Of 179 Shigella isolates studied by PFGE, 148 form a single cluster based on identical fingerprinting patterns. Also, 99.0% of this cluster are rhamnose negative and 93.0% are not susceptible to the antibiotic trimethorprim/sulfamethoxazole (SXT). The other 31 isolates have varying PFGE patterns (6 smaller clusters), with only 39.0% being rhamnose negative and 13.0% are not susceptible to SXT. Epidemiologic significance of strain variation is being evaluated.

Many of the cases are in young children, and are linked to clusters occurring within childcare settings.



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SUMMARY OF CONFIRMED INFECTIONS

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

WEBSITE: www.milwaukee.gov/healthlab July 2007 ISSUE # 1219

June 2007 Data

Agent	No. of Isolates	Age	Sex	Specimen	Symptoms
Enterovirus	1	3 mo	F	Colon swab	Autopsy
Enterovirus	1	13 mo	M	Colon swab	Autopsy
Rhinovirus	1	4 wks	F	NP	Autopsy
Rhinovirus	1	3	M	NP Referred isolate	NA
Rhinovirus	1	31 mo	F	NP Referred isolate	NA
Rhinovirus	2	4	F	NP Referred isolate	NA
Rhinovirus	1	4 mo	M	NP Referred isolate	NA
Rhinovirus	1	6 mo	F	NP Referred isolate	NA
Rhinovirus	1	57	F	BAL Referred isolate	NA
Herpes simplex, type 1	6				
Herpes simplex, type 2	4				

***N/A – Not Available**

Agent	Method	Tested	Positive	% Positive
Chlamydia trachomatis	ProbeTec	666	97	14.6%
Neisseria gonorrhoeae	ProbeTec/GenProbe	908	85	9.4%
Mumps virus	EIA	27	0	0%
Enterovirus	Real-time RT-PCR	19	2	10.5%

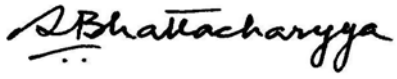
Important News

Real-time PCR-based tests are now being offered by the City lab for following agents:

1) Respiratory Syncytial Virus (RSV)
2) Adenovirus

Discontinuation of Tests:

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



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