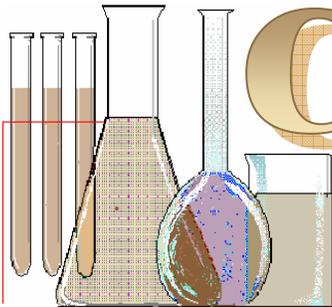




# Maryland Department of Health & Mental Hygiene

John M. Colmers, Secretary

A Publication of Maryland's State Public Health Laboratory



# CRITICAL LINK



November 2007

Volume 11, Number 11

## *Mycoplasma pneumoniae* Infection

This past September clinical examinations of children and a teacher from an elementary school yielded similar diagnoses of upper respiratory tract infection exhibiting symptoms suggesting a mycoplasma as the etiologic agent. The Laboratories Administration's Molecular Biology Division received a request to test five specimens from children and the teacher for mycoplasma. All five specimens were found to be positive by PCR for *Mycoplasma pneumoniae*.

### Introduction

*Mycoplasmas*, together with *Ureaplasma*, are genera that contain the smallest free-living bacteria. They are unique among bacteria in that they lack a cell wall. Lacking a cell wall makes mycoplasmas resistant to penicillins, cephalosporins, vancomycin and other antibiotics that interfere with cell-wall synthesis. Their small

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## Syphilis Trep-Sure EIA IgG/IgM Test

The Maryland State Laboratories Administration has replaced the confirmatory Syphilis FTA-ABS test with the confirmatory Syphilis Trep-Sure™ EIA IgG/IgM test. While this test will detect IgG and IgM antibodies directed toward *T. pallidum*, how much IgG and/or IgM antibody is present in a positive test result is unknown. This newer test methodology allows for objective instrument reading of confirmatory test results for syphilis treponemal antibody. We have found less "gray" or equivocal test results (i.e. Reactive Minimal FTA-ABS results) with the Trep-Sure™ test.

The Trep-Sure™ test is used to detect antibodies to *Treponema pallidum* in human serum or EDTA and citrated plasma. This test has not been validated for testing cerebral spinal fluid or other body fluids for anti-treponemal antibodies. It does not detect *T. pallidum* directly.

A "Positive" TrepSure™ result has the same significance as a "Reactive" FTA-ABS. A "Negative" Trep-Sure™ result has the same significance as a "Nonreactive" FTA-ABS. As is the case with the FTA-ABS test, this test is intended to aid in diagnosis only. As in all serological tests for syphilis, test results should be used in conjunction with the patient's clinical symptoms, medical history and other clinical and/or laboratory findings in achieving an overall clinical diagnosis.

Any questions concerning the confirmatory Syphilis Trep-Sure™ EIA IgG/IgM test should be addressed to the Syphilis Serology Laboratory by calling 410-767-6175.

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## *Mycoplasma pneumoniae* Infection

size (0.1-0.3  $\mu\text{m}$  in diameter) originally led researchers to believe they were viruses. However, they divide by binary fission, grow on artificial media supplemented with sterols, and contain RNA and DNA. Most mycoplasmas are facultatively anaerobic. Only *M. pneumoniae* is a strict aerobe.

The mycoplasmas grow slowly, requiring a generation time of one to six hours, and produce small colonies. Since they do not have a cell wall, major antigenic determinants are membrane glycolipids and proteins that cross-react with human tissues and other bacteria.

### Epidemiology

*M. pneumoniae* was first identified and described in the early 1960's. Pneumonia caused by *M. pneumoniae*, also known as primary "atypical pneumonia" and "walking pneumonia," occurs through the world and throughout the year. However, because pneumonia caused by *Streptococcus pneumoniae* and viruses is more common during the cold months, *M. pneumoniae* infection is proportionally more common during the summer and fall.

Disease is most common in school-age children and young adults but all age groups are susceptible. *M. pneumoniae* causes approximately 20% of all community acquired pneumonias in the general population,<sup>1</sup> and is estimated to cause two million cases of *M. pneumoniae* pneumonia and one hundred thousand pneumonia-related hospitalizations each year in the U.S.<sup>2</sup> However, true incidence is unknown because the infection is not a reportable disease. There is no real way to prevent *Mycoplasma* disease. Isolation is impractical because patients are usually infectious for a prolonged period, even when on appropriate antibiotics.

### Clinical Infection

Nasal secretions spread *M. pneumoniae* infection. The organism is an extracellular pathogen that adheres to respiratory epithelium. It then destroys the cilia and the ciliated cells, interferes with upper airway clearance, and leads to the lower respiratory tract becoming contaminated with microbes. This process causes a persistent cough in patients with symptomatic disease. The most typical clinical syndrome is tracheobronchitis, often accompanied by upper respiratory tract manifestations such as acute pharyngitis.<sup>3</sup> Erythromycin, tetracycline, doxycycline, and newer fluoroquinolones are equally effective in treating *M. pneumoniae* infections, although the tetracyclines and fluoroquinolones are re-

served for use in adults. Tetracyclines have the advantage of also being active against most other mycoplasmas and chlamydia.

Close contact is necessary for transmission. The infection usually occurs among classmates or family members and the attack rate is higher in children than adults.

The incubation period and time of infectivity are prolonged, allowing the disease to persist for months among classmates or family members. Symptoms (low fever, malaise, headache and dry, nonproductive cough), when they occur, develop two to three weeks after exposure, gradually worsen over the next few days, and can persist for two weeks or longer. More severe disease with lower respiratory tract symptoms occurs in fewer than 10% of cases. Pneumonia can also develop with a patchy bronchopneumonia appearing on chest X-rays that is typically more impressive than the physical findings.<sup>4</sup> Cases resolve slowly.

### Laboratory Diagnosis

#### Conventional Assays

Mycoplasmas have no cell wall so Gram staining and microscopy have no diagnostic value other than to exclude contaminating bacteria. *M. pneumoniae*, being a strict aerobe, allows it to be isolated from throat washings and bronchial washings, the preferred specimen types for culturing. However, culturing *M. pneumoniae* requires special media with a number of supplements, usually requires 21 days or more to grow,<sup>3</sup> and is not routinely available in most laboratories. Serologic tests (i.e., complement fixation, enzyme immunoassay, and cold agglutinin), which are available only for *M. pneumoniae*, all suffer from varying levels of poor sensitivity and/or specificity and require paired serum specimens collected at least two weeks apart.

#### PCR Assays

Currently polymerase chain reaction (PCR)-based assays have been developed that produce rapid, sensitive, specific results allowing early appropriate antibiotic therapy. A study<sup>3</sup> of an outbreak of *M. pneumoniae* in a religious community found that PCR was approximately twice as sensitive as culture. An additional advantage of PCR is that it allows detection of both viable and nonviable mycoplasmas.

A wide range of respiratory specimens, including throat swabs, are suitable for detection of *M. pneumoniae* by PCR. However, studies have shown that throat swabs are superior to nasopharyngeal swabs in the detection

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(Continued from page 2)

## *Mycoplasma pneumoniae* Infection

of *M. pneumoniae*,<sup>6</sup> and that throat swabs are superior to sputum and bronchoalveolar lavage.<sup>7</sup> Specimens should be transported to the laboratory as soon as possible and stored at 4°C, or frozen at -70°C.<sup>8</sup>

The Laboratories Administration's Molecular Biology Division employs an unvalidated real-time PCR assay for *M. pneumoniae*. This assay was developed in-house because reliable real-time PCR assays for *M. pneumoniae* are not available commercially. Though this assay cannot be used for clinical diagnostic purposes, it is useful in helping epidemiologists identify the causative agent in outbreak investigations.

*M. pneumoniae* real-time PCR testing is currently not available for routine diagnostic specimens. Please contact the Laboratories Administration if *M. pneumoniae* real-time PCR testing is needed for outbreak investigations. Additional questions related to PCR testing for *M. pneumoniae* may be directed to the Molecular Biology Division by calling 410-767-6157.

Material for this article compiled by  
Dr. Jack DeBoy and Naomi Barker.

<sup>1</sup> Waites, K.B. and D.F. Talkington. 2004. *Clin. Microbiol. Rev.*, 17:697-728.

<sup>2</sup> Murray, P.R., K.S. Rosenthal, and M.A. Pfaller. 2005. *Medical Microbiology*, Elsevier Mosby, Phila., PA, p. 445.

<sup>3</sup> Waites, K.B., and D. Taylor-Robinson. *Manual Clin. Microbiol.* 2007. ASM Press, Wash., DC, pp.1004-1020.

<sup>4</sup> Luby, JP. 1991. *Clin. Chest Med.*, 12:237-244.

## Laboratories Administration Hosts Foreign Laboratory Directors

On October 19, 2007, the Laboratories Administration provided a field site and staff to help train 13 public health laboratory directors from Botswana, Cote D'Ivoire, Egypt, Kenya, Mozambique, Namibia, Ethiopia, and Tanzania.

These visitors were participants in a two-week-long International Institute for Public Health Laboratory Management sponsored by the George Washington University (GWU) School of Public Health and the Association of Public Health Laboratories (APHL) from October 15-26, 2007.

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# MARYLAND

## Critical Link

is published monthly by the staff of the

### Laboratories Administration

Department of Health & Mental Hygiene

201 W. Preston Street, Baltimore, MD 21201  
(Phone 410-767-6909)

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Questions concerning technical content  
of this newsletter may be referred to  
Dr. Jack DeBoy at 410-767-6100

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Laboratories Administration Hosts  
Foreign Laboratory Directors

A dozen state public health laboratory directors from across the U.S. served as institute faculty to lecture and provide practice in a full range of leadership and management skills. In Baltimore, the foreign laboratory directors received lectures and in-laboratory practice opportunities in what to look for and how to conduct laboratory quality assurance and biological safety inspections.

Mr. Michael Wajda and Dr. Jack DeBoy lectured, Mr. Wajda, Dr. Asoka Katumuluwa, Dr. Robert Myers, and Dr. Julia Kiehlauch provided in-laboratory training and led discussions. Ms. Sheila DeLaquil coordinated the training and communications with GWU and APHL. Ms. Georgia Corso scheduled, ordered, and oversaw provision of meals and training supplies, and took photographs.

The employees of the Laboratories Administration always receive as much knowledge as they provide when given opportunities to interact with foreign visitors. However, the motivation and interest in public health laboratory practice expressed by these visitors made their training and discussions especially enjoyable for our staff.



In the above photo, Monica Saunders (center in white lab coat), a scientist in the nutrient laboratory in the Environmental Chemistry Division, explains drinking water testing procedures and quality controls to visiting laboratory directors. From left are Bedan Wamuti from Kenya, Margret Bafana from Botswana, Aytenew Ashenafi from Ethiopia, and Peter Tukei from Kenya.

# Laboratory Statistics

NS – Not Speciated  
NT – Non-Typeable  
VRE – Vancomycin Resistant  
SP – Species  
NG – No Growth

\* This genus has recently been given a new genus name. The genus name in parenthesis is the old name.  
\*\* Formerly a part of the *Trichosporon beigellii* complex.  
\*\*\* Alpha streptococci other than *S. pneumoniae* and *Enterococcus*

REPORTED 08/01/07 - 08/31/07

## ENTERIC BACTERIOLOGY

GENUS SEROVAR	SEX	AGE	#	JURISDICTION
<b>CAMPYLOBACTER COLI</b>				
F		15	1	ALLEGANY
F		4	1	MONTGOMERY
<b>CAMPYLOBACTER JEJUNI</b>				
F		51	1	BALTIMORE
F		60	1	BALTIMORE
M		61	1	BALTIMORE
F		21	1	FREDERICK
F		2	1	HARFORD
M		2	1	HARFORD
M		47	1	MONTGOMERY
M		70	1	OUT OF STATE
<b>ESCHERICHIA COLI O157:H7</b>				
F		47	1	BALTIMORE
M		3	1	BALTIMORE
M		12	1	BALTIMORE CITY
U		54	1	OUT OF STATE
<b>SALMONELLA AGONA</b>				
F		89	1	BALTIMORE CITY
<b>SALMONELLA BARDO</b>				
F		53	1	ALLEGANY
F		14	1	PRINCE GEORGE'S
U			1	WICOMICO
U		4	1	OUT OF STATE
<b>SALMONELLA BAREILLY</b>				
F			1	BALTIMORE
F		5	1	CHARLES
<b>SALMONELLA BLOCKLEY</b>				
F		18	1	ANNE ARUNDEL
<b>SALMONELLA BOVISMORBIFICANS</b>				
U		2	1	OUT OF STATE
<b>SALMONELLA BRAENDERUP</b>				
M		44	1	QUEEN ANNE'S
<b>SALMONELLA CONCORD</b>				
F		1	1	QUEEN ANNE'S
<b>SALMONELLA DERBY</b>				
M		18	1	PRINCE GEORGE'S
<b>SALMONELLA ENTERITIDIS</b>				
F		2	1	ANNE ARUNDEL
F		1	1	BALTIMORE
F		18	1	BALTIMORE
F		17	1	CARROLL
F		24	1	FREDERICK
M		1	1	HARFORD
M		39	1	HARFORD

M	46	1	HARFORD
M	43	1	HOWARD
M	42	1	KENT
F	70	1	MONTGOMERY
U		1	PRINCE GEORGE'S
M	44	1	QUEEN ANNE'S
F		1	BALTIMORE CITY
F	3	1	BALTIMORE CITY
F	23	1	BALTIMORE CITY
F	87	1	BALTIMORE CITY
M	4	1	BALTIMORE CITY
M	7	1	BALTIMORE CITY
M	10	1	BALTIMORE CITY
U		2	BALTIMORE CITY
F	19	1	OUT OF STATE
M	21	2	OUT OF STATE
M	41	1	OUT OF STATE
U	26	1	OUT OF STATE
U	40	1	OUT OF STATE
<b>SALMONELLA HADAR</b>			
M	32	1	PRINCE GEORGE'S
<b>SALMONELLA HEIDELBERG</b>			
F	2	1	BALTIMORE
F	35	1	MONTGOMERY
F	73	1	WASHINGTON
F	21	1	BALTIMORE CITY
U	33	1	OUT OF STATE
<b>SALMONELLA INFANTIS</b>			
M		1	BALTIMORE CITY
U	3	1	OUT OF STATE
<b>SALMONELLA IV 44:z4,z23:-</b>			
U		1	OUT OF STATE
<b>SALMONELLA JAVA</b>			
F	53	1	WASHINGTON
<b>SALMONELLA JAVIANA</b>			
M		1	ANNE ARUNDEL
F		1	MONTGOMERY
F	60	1	QUEEN ANNE'S
M	59	1	TALBOT
M	23	1	WICOMICO
M	54	1	WORCESTER
U	37	1	OUT OF STATE
<b>SALMONELLA LITCHFIELD</b>			
U	45	1	OUT OF STATE
U	47	1	OUT OF STATE
<b>SALMONELLA MISSISSIPPI</b>			
M	36	1	ANNE ARUNDEL
<b>SALMONELLA MONTEVIDEO</b>			
F	28	1	MONTGOMERY
M	21	1	MONTGOMERY
<b>SALMONELLA MUENCHEN</b>			
F	65	1	BALTIMORE CITY
<b>SALMONELLA MUENSTER</b>			
M	30	1	BALTIMORE CITY
<b>SALMONELLA NEWPORT</b>			
M	45	1	ALLEGANY
M	74	1	BALTIMORE
F	25	1	CARROLL
F	82	1	CARROLL
M	41	1	DORCHESTER
M	18	2	FREDERICK
M	20	1	HARFORD
F	28	1	PRINCE GEORGE'S
F	47	1	TALBOT
F	49	1	WASHINGTON
M	59	1	WASHINGTON

F	45	1	WORCESTER
M	68	1	BALTIMORE CITY
F	48	1	OUT OF STATE
M	6	1	OUT OF STATE
M	7	1	OUT OF STATE
M	8	1	OUT OF STATE
M	11	2	OUT OF STATE
M	31	1	OUT OF STATE
M	50	1	OUT OF STATE
U	48	1	OUT OF STATE
U	59	1	OUT OF STATE
U	77	1	OUT OF STATE
<b>SALMONELLA ORANIENBURG</b>			
M	31	1	WASHINGTON
<b>SALMONELLA PANAMA</b>			
M	1	1	MONTGOMERY
U		1	BALTIMORE CITY
F	11	1	OUT OF STATE
U	11	1	OUT OF STATE
<b>SALMONELLA SAINTPAUL</b>			
U	24	1	OUT OF STATE
<b>SALMONELLA SANDIEGO</b>			
U		1	BALTIMORE CITY
<b>SALMONELLA SCHWARZENGRUND</b>			
U	1	1	ANNE ARUNDEL
U		1	OUT OF STATE
<b>SALMONELLA STANLEY</b>			
M	18	1	CECIL
U	1	1	OUT OF STATE
<b>SALMONELLA TYPHI</b>			
F	10	1	ANNE ARUNDEL
U		1	ANNE ARUNDEL
M		1	BALTIMORE CITY
M	33	1	BALTIMORE CITY
<b>SALMONELLA TYPHIMURIUM</b>			
U	1	1	ANNE ARUNDEL
U	27	1	ANNE ARUNDEL
M	52	1	BALTIMORE
M	7	1	CARROLL
M	22	1	MONTGOMERY
U	2	1	MONTGOMERY
F		1	WICOMICO
F	6	1	WICOMICO
F	12	1	WICOMICO
F		1	BALTIMORE CITY
M	2	1	BALTIMORE CITY
U		1	BALTIMORE CITY
M	52	1	OUT OF STATE
U	2	1	OUT OF STATE
U	3	1	OUT OF STATE
U	30	1	OUT OF STATE
<b>SALMONELLA TYPHIMURIUM VAR COPENHAGEN</b>			
F		1	BALTIMORE
F	38	1	BALTIMORE
M	60	1	BALTIMORE
F	49	1	CALVERT
M	1	1	FREDERICK
U	51	1	HARFORD
F	53	1	BALTIMORE CITY
M		1	BALTIMORE CITY
M	12	1	BALTIMORE CITY
F	57	1	OUT OF STATE
U		1	OUT OF STATE
U	67	1	OUT OF STATE
<b>SALMONELLA UGANDA</b>			
U	1	1	BALTIMORE

F	65	1	OUT OF STATE
<b>SALMONELLA UNTYPABLE</b>			
M	58	1	BALTIMORE CITY
<b>SALMONELLA VIRCHOW</b>			
U	62	1	OUT OF STATE
<b>SALMONELLA 13,23:b:-</b>			
F	63	1	BALTIMORE CITY
<b>SALMONELLA 4,5,12:i:-</b>			
F	7	1	WICOMICO
M	1	1	BALTIMORE CITY
<b>SHIGELLA FLEXNERI II:3,4</b>			
M	22	1	ANNE ARUNDEL
<b>SHIGELLA FLEXNERI IV</b>			
M	20	1	BALTIMORE CITY
<b>SHIGELLA SONNEI</b>			
M	25	1	ANNE ARUNDEL
U		1	ANNE ARUNDEL
F	3	1	HARFORD
M	4	1	HARFORD
F	4	1	OUT OF STATE
M	9	1	OUT OF STATE
U		1	OUT OF STATE
U	63	1	OUT OF STATE
<b>VIBRIO ALGINOLYTICUS</b>			
U	11	1	OUT OF STATE
<b>VIBRIO VULNIFICUS</b>			
F	49	1	CALVERT
<b>TOTAL</b>		<b>165</b>	

### ISOLATES – THROAT CULTURES

COUNTY	GROUP A <sup>1</sup>	NON-GROUP A
ALLEGANY	0	1
ANNE ARUNDEL	0	1
PRINCE GEORGE'S	0	1
WICOMICO	0	1
WORCESTER	0	3
<b>TOTAL</b>	<b>0</b>	<b>7</b>

<sup>1</sup> *Streptococcus pyogenes*

### BACTERIOLOGY IDENTIFICATIONS

#### Referrals

GENUS SPECIES SOURCE	#	JURISDICTION
<b>HAEMOPHILUS INFLUENZAE NON-TYPEABLE</b>		
BLOOD	1	PRINCE GEORGE'S
BLOOD	3	BALTIMORE CITY
<b>TOTAL</b>	<b>4</b>	

### ISOLATES – MISCELLANEOUS

GENUS SPECIES SOURCE	#	JURISDICTION
<b>ACINETOBACTER CALCOACETICUS-BAUMANNII COMPLEX</b>		
FOOT	1	FREDERICK
<b>ACINETOBACTER LWOFFII</b>		
TOE	1	FREDERICK
FOOT	1	FREDERICK
<b>BACILLUS SPECIES</b>		
TOE	1	FREDERICK
SCALP	1	MONTGOMERY

<b>CITROBACTER BRAAKII</b>		
FOOT	1	FREDERICK
<b>CITROBACTER KOSERI</b>		
SCALP	1	MONTGOMERY
<b>CITROBACTER YOUNGAE</b>		
BLOOD	1	BALTIMORE CITY
<b>CORYNEBACTERIUM AFERMENTANS</b>		
BLOOD	1	BALTIMORE CITY
<b>CORYNEBACTERIUM SPECIES</b>		
BLOOD	2	BALTIMORE CITY
LESION	1	CECIL
FOOT	1	FREDERICK
<b>CORYNEBACTERIUM XEROSIS</b>		
BLOOD	1	BALTIMORE CITY
<b>ENTEROBACTER CLOACAE</b>		
FOOT	1	FREDERICK
<b>ENTEROCOCCUS FAECALIS</b>		
TOE	3	FREDERICK
FOOT	1	FREDERICK
WOUND	1	PRINCE GEORGE'S
<b>ESCHERICHIA COLI</b>		
BLOOD	3	BALTIMORE CITY
LUNG	1	BALTIMORE CITY
FOOT	3	FREDERICK
CERVICAL	1	PRINCE GEORGE'S
<b>KLEBSIELLA ORZAENAE</b>		
SKIN	1	MONTGOMERY
<b>KLEBSIELLA PNEUMONIAE</b>		
CSF	1	BALTIMORE CITY
PERITONEAL	1	BALTIMORE CITY
<b>LECLERCIA ADECARBOXYLATA</b>		
TOE	1	FREDERICK
<b>MORGANELLA MORGANII</b>		
FOOT	1	FREDERICK
TOE	1	FREDERICK
<b>PROPIONIBACTERIUM ACNES</b>		
BLOOD	1	BALTIMORE CITY
<b>PROTEUS MIRABILIS</b>		
BLOOD	1	BALTIMORE CITY
SPUTUM	1	FREDERICK
<b>PSEUDOMONAS AERUGINOSA</b>		
FOOT	1	FREDERICK
TOE	2	FREDERICK
<b>PSEUDOMONAS ORYZIHABITANS</b>		
TOE	1	FREDERICK
<b>PSEUDOMONAS SPECIES</b>		
SPUTUM	1	FREDERICK
<b>PSEUDOMONAS STUTZERI</b>		
FOOT	1	FREDERICK
<b>STAPHYLOCOCCUS AUREUS</b>		
WOUND	1	ALLEGANY
BLOOD	2	BALTIMORE CITY
LESION	1	CECIL
VAGINAL	1	CECIL
TOE	2	FREDERICK
SPUTUM	1	FREDERICK
SPUTUM	1	HOWARD
BUTTOCKS	1	MONTGOMERY
CARBUNCLE	1	MONTGOMERY
SCALP	1	MONTGOMERY
WOUND	1	PRINCE GEORGE'S
<b>STAPHYLOCOCCUS AURICULARIS</b>		
BLOOD	3	BALTIMORE CITY
<b>STAPHYLOCOCCUS EPIDERMIDIS</b>		
BLOOD	1	BALTIMORE CITY
<b>STAPHYLOCOCCUS SPECIES</b>		
BREAST MILK	1	ANNE ARUNDEL
BLOOD	2	BALTIMORE CITY
LUNG	1	BALTIMORE CITY
CSF	2	BALTIMORE CITY
FINGER	1	BALTIMORE CITY
FOOT	1	FREDERICK
TOE	5	FREDERICK

EYE	1	PRINCE GEORGE'S
<b>STENOTROPHOMONAS MALTOPHILIA</b>		
FOOT	1	FREDERICK
<b>STREPTOCOCCUS ALPHA-HEMOLYTIC</b>		
BLOOD	1	BALTIMORE CITY
TOE	1	FREDERICK
<b>STREPTOCOCCUS BETA-HEMOLYTIC GROUP B</b>		
VAGINAL	3	ANNE ARUNDEL
FOOT	1	FREDERICK
VAGINAL	2	PRINCE GEORGE'S
<b>STREPTOCOCCUS EQUINUS</b>		
BLOOD	1	BALTIMORE CITY
<b>STREPTOCOCCUS MITIS</b>		
BLOOD	1	BALTIMORE CITY
<b>STREPTOCOCCUS NON-GROUPABLE</b>		
BLOOD	1	BALTIMORE CITY
<b>STREPTOCOCCUS NON-HEMOLYTIC</b>		
BLOOD	4	BALTIMORE CITY
<b>STREPTOCOCCUS PNEUMONIAE</b>		
LUNG	1	BALTIMORE CITY
<b>STREPTOCOCCUS SALIVARIUS</b>		
CSF	1	BALTIMORE CITY
<b>TOTAL</b>	<b>92</b>	

## SEXUALLY TRANSMITTED DISEASES

GENUS SPECIES	SEX	#	JURISDICTION
<b>NEISSERIA GONORRHEAE</b>			
	M	3	ALLEGANY
	F	4	ANNE ARUNDEL
	M	4	ANNE ARUNDEL
	F	1	BALTIMORE
	M	1	CALVERT
	F	0	CAROLINE
	M	1	CAROLINE
	F	3	CHARLES
	M	1	CHARLES
	F	1	DORCHESTER
	M	2	DORCHESTER
	M	1	HARFORD
	F	2	KENT
	M	1	KENT
	F	2	MONTGOMERY
	M	5	MONTGOMERY
	F	27	PRINCE GEORGE'S
	M	49	PRINCE GEORGE'S
	F	0	QUEEN ANNE'S
	M	0	QUEEN ANNE'S
	F	1	SOMERSET
	M	1	SOMERSET
	F	2	TALBOT
	M	1	TALBOT
	F	1	WASHINGTON
	F	1	WICOMICO
	M	5	WICOMICO
	F	0	WORCESTER
	M	1	WORCESTER
	F	1	BALTIMORE CITY
	M	8	BALTIMORE CITY
<b>TOTAL</b>		<b>130</b>	
<b>SYPHILIS SEROLOGY</b>			
	M	3	ALLEGANY
	M	2	ANNE ARUNDEL
	F	4	BALTIMORE
	M	4	BALTIMORE
	U	1	BALTIMORE

F	6	BALTIMORE CITY
M	21	BALTIMORE CITY
U	1	BALTIMORE CITY
M	1	CAROLINE
F	2	CARROLL
M	2	CHARLES
F	1	FREDERICK
F	1	HARFORD
F	1	HOWARD
M	1	HOWARD
F	6	MONTGOMERY
M	6	MONTGOMERY
M	1	OUT OF STATE
F	8	PRINCE GEORGE'S
M	17	PRINCE GEORGE'S
U	1	PRINCE GEORGE'S
F	1	SOMERSET
M	2	TALBOT
F	4	WICOMICO
M	1	WICOMICO
U	2	WICOMICO
<b>TOTAL</b>	<b>100</b>	

## CHLAMYDIA TRACHOMATIS

F	4	ALLEGANY
M	2	ALLEGANY
F	18	ANNE ARUNDEL
M	10	ANNE ARUNDEL
F	19	BALTIMORE
M	9	BALTIMORE
F	3	CALVERT
M	1	CALVERT
F	1	CAROLINE
M	1	CAROLINE
F	3	CARROLL
M	3	CARROLL
F	1	CECIL
M	2	CECIL
F	10	CHARLES
M	7	CHARLES
F	1	DORCHESTER
M	3	DORCHESTER
F	12	FREDERICK
M	1	FREDERICK
F	9	HARFORD
M	7	HARFORD
F	4	HOWARD
M	3	HOWARD
F	1	KENT
M	1	KENT
F	13	MONTGOMERY
M	8	MONTGOMERY
F	56	PRINCE GEORGE'S
M	15	PRINCE GEORGE'S
F	2	QUEEN ANNE'S
F	2	ST. MARY'S
F	5	SOMERSET
M	1	SOMERSET
F	3	TALBOT
M	1	TALBOT
F	5	WASHINGTON
M	3	WASHINGTON
F	18	WICOMICO
M	10	WICOMICO
F	1	WORCESTER
F	7	BALTIMORE CITY
M	23	BALTIMORE CITY
F	4	OUT OF STATE
M	4	OUT OF STATE
<b>TOTAL</b>	<b>317</b>	

## MYCOBACTERIOLOGY

GENUS SPECIES	SEX	AGE	#	JURISDICTION
<b>MYCOBACTERIUM TUBERCULOSIS</b>				
F		26	1	BALTIMORE
F		76	1	BALTIMORE
M		39	1	BALTIMORE
M		88	1	BALTIMORE
F		25	1	MONTGOMERY
F		62	1	MONTGOMERY
F		70	1	MONTGOMERY
M		24	2	PRINCE GEORGE'S
M		57	1	BALTIMORE CITY
<b>MYCOBACTERIUM TUBERCULOSIS COMPLEX</b>				
F		26	1	BALTIMORE
M		21	1	BALTIMORE
M		39	1	BALTIMORE
F		37	1	CHARLES
M		48	1	CHARLES
F		23	1	HARFORD
F		75	1	HARFORD
M		59	1	HOWARD
F		22	1	MONTGOMERY
F		25	1	MONTGOMERY
M		22	1	MONTGOMERY
M		26	1	MONTGOMERY
M		47	1	MONTGOMERY
F		18	1	PRINCE GEORGE'S
F		23	1	PRINCE GEORGE'S
F		30	1	PRINCE GEORGE'S
F		40	1	PRINCE GEORGE'S
M		18	1	PRINCE GEORGE'S
M		24	2	PRINCE GEORGE'S
M		47	1	PRINCE GEORGE'S
M		50	1	PRINCE GEORGE'S
M		64	1	PRINCE GEORGE'S
M		24	1	WORCESTER
F		25	1	BALTIMORE CITY
F		32	1	BALTIMORE CITY
M		58	1	BALTIMORE CITY
U		38	1	OUT OF STATE
<b>MYCOBACTERIUM ABSCESSUS</b>				
F		58	1	BALTIMORE
M		77	1	OUT OF STATE
<b>MYCOBACTERIUM AVIUM COMPLEX</b>				
F		79	1	ANNE ARUNDEL
F		83	1	ANNE ARUNDEL
F		61	1	BALTIMORE
M		58	1	BALTIMORE
M		57	1	CECIL
F		61	1	FREDERICK
F		68	1	FREDERICK
F		73	1	FREDERICK
F		81	1	FREDERICK
F		83	1	FREDERICK
M		64	1	FREDERICK
M		82	1	FREDERICK
F		77	1	HARFORD
M		47	1	MONTGOMERY
M		67	1	MONTGOMERY
F		60	1	WASHINGTON
M		76	1	WASHINGTON
F		77	1	WICOMICO
M		64	1	WICOMICO
F		32	2	BALTIMORE CITY
F		55	1	BALTIMORE CITY
F		87	1	BALTIMORE CITY
M		41	1	BALTIMORE CITY
M		46	1	BALTIMORE CITY
M		50	1	OUT OF STATE

<b>MYCOBACTERIUM CHELONAE</b>				
M		57	1	CECIL
M		28	1	PRINCE GEORGE'S
M		56	1	OUT OF STATE
M		77	1	OUT OF STATE
<b>MYCOBACTERIUM FORTUITUM</b>				
M		71	1	BALTIMORE
M		90	1	BALTIMORE
F		25	1	MONTGOMERY
M		4	1	PRINCE GEORGE'S
M		55	1	PRINCE GEORGE'S
U		51	1	OUT OF STATE
<b>MYCOBACTERIUM FORTUITUM COMPLEX</b>				
M		64	1	PRINCE GEORGE'S
M		36	1	OUT OF STATE
<b>MYCOBACTERIUM GORDONAE</b>				
F		69	1	BALTIMORE
M		78	1	FREDERICK
F		53	1	HARFORD
F		71	1	MONTGOMERY
M		37	1	OUT OF STATE
<b>MYCOBACTERIUM KANSASII</b>				
M		51	1	BALTIMORE
M		25	1	PRINCE GEORGE'S
M		63	1	PRINCE GEORGE'S
F		32	1	BALTIMORE CITY
<b>MYCOBACTERIUM MALMOENSE</b>				
M		26	1	MONTGOMERY
<b>MYCOBACTERIUM MARINUM</b>				
F		56	1	CARROLL
<b>MYCOBACTERIUM XENOPI</b>				
M		68	1	FREDERICK
M		35	1	BALTIMORE CITY
<b>TOTAL</b>			<b>91</b>	

## MYCOBACTERIUM SUSCEPTIBILITY RESULTS

DURING THE MONTH OF AUGUST, 2007, SUSCEPTIBILITY RESULTS ON 26 ISOLATES OF *M. TUBERCULOSIS* COMPLEX \* WERE IDENTIFIED.

### TOTAL: 9 DRUG RESISTANT STRAINS FOUND

#	COUNTY	DRUG
1 <sup>B</sup>	ALLEGANY	@ to PYRAZINAMIDE
1	BALTIMORE	@ to RIFAMPIN and CLARITHROMYCIN
1	BALTIMORE	@ to STREPTOMYCIN
2 <sup>A</sup>	MONTGOMERY	@ to ISONIAZID and STREPTOMYCIN
1	MONTGOMERY	@ to STREPTOMYCIN
1 <sup>C</sup>	MONTGOMERY	@ to STREPTOMYCIN, ISONIAZID, RIFAMPIN, and RIFABUTIN
2 <sup>A</sup>	PRINCE GEORGE'S	@ to STREPTOMYCIN

A Two isolates from the same patient

B Probable *M. bovis*

C Meets case definition of Multi-Drug Resistant Tuberculosis (MDRTB)

@ RESISTANT

\**Mycobacterium tuberculosis* complex consists of:

*M. tuberculosis*

*M. bovis*

*M. bovis, BCG*

*M. africanum*

*M. microti*

*M. canettii*

## MYCOLOGY

GENUS SPECIES	SEX	AGE	#	JURISDICTION
ACID FAST BACILLI				
M		71	1	BALTIMORE
ACREMONIUM SP				
F		50	1	WICOMICO
ALTERNARIA SP				
F		82	1	ALLEGANY
M		69	1	ALLEGANY
U			1	ANNE ARUNDEL
M		64	1	FREDERICK
F		41	1	TALBOT
M		4	1	TALBOT
M		32	1	TALBOT
M		60	1	BALTIMORE CITY
ASPERGILLUS FUMIGATUS				
F		70	1	ALLEGANY
F		41	1	CHARLES
F		67	1	DORCHESTER
M		62	1	DORCHESTER
M		57	1	TALBOT
F		46	1	BALTIMORE CITY
M			1	BALTIMORE CITY
M		78	1	OUT OF STATE
ASPERGILLUS NIGER				
F		61	1	ALLEGANY
F		73	1	ALLEGANY
F		87	1	ANNE ARUNDEL
M		75	1	CHARLES
F		73	1	PRINCE GEORGE'S
U			1	BALTIMORE CITY
BIPOLARIS SP				
U			1	WICOMICO
CANDIDA ALBICANS				
F		78	1	ANNE ARUNDEL
M		52	1	ANNE ARUNDEL
M		62	1	ANNE ARUNDEL
F		21	1	CECIL
F		34	1	CECIL
M		20	1	CECIL
F		86	1	FREDERICK
M		75	1	HOWARD
F		41	1	MONTGOMERY
F		58	1	MONTGOMERY
M		64	1	MONTGOMERY
F		63	1	PRINCE GEORGE'S
M		49	1	PRINCE GEORGE'S
M		55	1	PRINCE GEORGE'S
M		60	1	PRINCE GEORGE'S
M		61	1	PRINCE GEORGE'S
M		62	1	PRINCE GEORGE'S
M		71	1	PRINCE GEORGE'S
F		51	1	BALTIMORE CITY
F		55	1	BALTIMORE CITY
F		58	1	BALTIMORE CITY
F		60	1	BALTIMORE CITY
M		43	1	BALTIMORE CITY
M		48	1	BALTIMORE CITY
M		52	1	BALTIMORE CITY
M		54	1	BALTIMORE CITY
M		55	1	BALTIMORE CITY
M		67	1	BALTIMORE CITY
M		78	1	OUT OF STATE
CANDIDA GLABRATA				
F		45	1	CALVERT
F		86	1	FREDERICK
F		41	1	MONTGOMERY
F		76	1	MONTGOMERY
F		63	1	PRINCE GEORGE'S
M		60	1	PRINCE GEORGE'S
U		50	1	PRINCE GEORGE'S
M		36	1	BALTIMORE CITY
F		57	1	OUT OF STATE
U		60	1	OUT OF STATE
CANDIDA KRUSEI				
M		52	1	ANNE ARUNDEL
CANDIDA PARAPSILOSIS				
F		25	1	BALTIMORE
M		81	1	MONTGOMERY
F		71	1	PRINCE GEORGE'S
CANDIDA SP (NOT C. ALBICANS)				
M		81	1	FREDERICK
CANDIDA TROPICALIS				
M		52	1	ANNE ARUNDEL
F		86	1	FREDERICK
M		60	1	PRINCE GEORGE'S
U		50	1	PRINCE GEORGE'S
F		89	1	OUT OF STATE
CHAETOMIUM SP				
F		76	1	OUT OF STATE
CLADOSPORIUM SP				
M		43	1	MONTGOMERY
F		50	1	WICOMICO
CRYPTOCOCCUS NEOFORMANS				
F		49	1	PRINCE GEORGE'S
CURVULARIA SP				
F		57	1	TALBOT
F		63	1	TALBOT
EPICOCCUM SP				
F		78	1	ALLEGANY
M		5	1	CALVERT
FUSARIUM SP				
M		75	1	HOWARD
F		47	1	PRINCE GEORGE'S
F		41	1	TALBOT
U			1	WICOMICO
F		80	1	BALTIMORE CITY
M			1	BALTIMORE CITY
MALASSEZIA FURFUR				
U		60	1	CARROLL
NOCARDIA ASTEROIDES COMPLEX				
M		77	1	ANNE ARUNDEL
F		76	1	CARROLL
M		84	1	HARFORD
U			1	BALTIMORE CITY
NOCARDIA BRASILIENSIS				
M		87	1	BALTIMORE
NOCARDIA NOVA				
M		85	1	BALTIMORE CITY
PENICILLIUM SP				
F		49	1	PRINCE GEORGE'S
M			1	BALTIMORE CITY
PESTALOTIA SP				
M			1	BALTIMORE CITY
PITHOMYCES SP				
F		78	1	ALLEGANY
RHODOTORULA SP				
M			1	ANNE ARUNDEL
M		75	1	HOWARD
M		72	1	BALTIMORE CITY
SCEDOSPORIUM APOSPERMUM				
M		87	1	ANNE ARUNDEL
SCOPULARIOPSIS BRUMPTII				
F		37	1	CARROLL
STREPTOMYCES SP				
F		71	1	WICOMICO
TRICHOPHYTON RUBRUM				
M		42	1	ALLEGANY
M		55	1	ALLEGANY

M	43	1	TALBOT
M	67	1	TALBOT
<b>TRICHOPHYTON SP</b>			
M	4	1	TALBOT
<b>TRICHOPHYTON TONSURANS</b>			
F	5	1	TALBOT
<b>TOTAL</b>		<b>111</b>	

## PARASITOLOGY

GENUS SPECIES	#	JURISDICTION
<b>PROTOZOA</b>		
<b>ACANTHAMOEBA SPECIES</b>	1	BALTIMORE CITY
<b>BLASTOCYSTIS HOMINIS</b>	2	MONTGOMERY
	5	WASHINGTON
<b>ENDOLIMAX NANA</b>	7	MONTGOMERY
	1	PRINCE GEORGE'S
	2	WASHINGTON
<b>ENTAMOEBA COLI</b>	1	MONTGOMERY
	1	PRINCE GEORGE'S
	7	WASHINGTON
<b>ENTAMOEBA HARTMANNI</b>	1	MONTGOMERY
	1	PRINCE GEORGES
<b>GIARDIA LAMBLIA</b>	3	MONTGOMERY
<b>IODAMOEBA BUTSCHLI</b>	3	MONTGOMERY
<b>TOTAL</b>		<b>35</b>
<b>NEMATODES</b>		
<b>HOOKWORM</b>	1	FREDERICK
	1	MONTGOMERY
	1	PRINCE GEORGE'S
<b>TOTAL</b>		<b>3</b>
<b>CESTODES</b>		
<b>HYMENOLEPIS NANA</b>	4	MONTGOMERY
<b>TOTAL</b>		<b>4</b>

## FOOD SAFETY

### FOOD AND SHELLFISH MICROBIOLOGY

FOOD	# OF SAMPLES	NOTABLE PATHOGENS
FOOD	3	0
<b># STANDARDS EXCEEDED *</b>		
CRABMEAT	14	5
<b># STANDARDS EXCEEDED **</b>		
SHELLFISH	2	0
SHELLFISH GROWING WATERS	244	
<b>TOTAL</b>		<b>5</b>

### \* LISTERIA INNOCUOUS

### STANDARDS

\* CRABMEAT-FRESH  
*ESCHERICHIA COLI* = LESS THAN 36 MPN/100 GRAM  
 STANDARD PLATE COUNT = LESS THAN 100,000 PER GRAM

\*\* SHELLFISH  
 FECAL COLIFORMS = LESS THAN 230 MPN/100 GRAM  
 STANDARD PLATE COUNT = LESS THAN 500,000 PER GRAM

## ARTHROPOD IDENTIFICATION

NONE

## TICK IDENTIFICATION

NONE

## WATER MICROBIOLOGY

	# TESTED	# NON-COMPLIANT
COMMUNITY	0	0
NON-COMMUNITY	286	133
<b>TOTAL</b>		<b>133</b>

## VIRUS ISOLATION

ISOLATE	SEX	AGE	#	JURISDICTION
<b>INFLUENZA B</b>				
	F	21	1	OUT OF STATE
<b>SUBTOTAL</b>			<b>1</b>	
<b>HERPES SIMPLEX UNTYPABLE</b>				
	U	19	1	WICOMICO
	U	22	1	WICOMICO
	M	22	1	WORCESTER
	U	24	1	WORCESTER
<b>SUBTOTAL</b>			<b>4</b>	
<b>HERPES SIMPLEX I</b>				
	F	22	1	BALTIMORE
	M	23	1	CALVERT
	F	20	1	CHARLES
	F	31	1	HOWARD
	F	24	1	MONTGOMERY
	F	20	1	PRINCE GEORGE'S
	F	22	1	WICOMICO
	F	16	2	BALTIMORE CITY
	M	19	1	BALTIMORE CITY
<b>SUBTOTAL</b>			<b>10</b>	
<b>HERPES SIMPLEX II</b>				
	F	26	1	ALLEGANY
	F	20	1	ANNE ARUNDEL
	F	24	1	ANNE ARUNDEL
	F	36	1	ANNE ARUNDEL
	F	47	1	ANNE ARUNDEL
	F	20	1	BALTIMORE
	U	24	1	BALTIMORE
	U	34	1	BALTIMORE
	F	20	1	CALVERT
	M	19	1	CECIL
	F	18	1	CHARLES
	F	22	1	CHARLES
	F	16	1	FREDERICK
	F	21	1	FREDERICK
	F	22	1	FREDERICK
	F	41	1	HARFORD

F	40	1	MONTGOMERY
M	23	1	MONTGOMERY
U		1	MONTGOMERY
F	18	1	PRINCE GEORGE'S
F	20	2	PRINCE GEORGE'S
F	21	2	PRINCE GEORGE'S
F	23	1	PRINCE GEORGE'S
F	35	1	PRINCE GEORGE'S
F	41	1	PRINCE GEORGE'S
M	19	1	PRINCE GEORGE'S
M	45	1	PRINCE GEORGE'S
F	18	1	TALBOT
F	51	1	WICOMICO
F		1	BALTIMORE CITY
F	16	1	BALTIMORE CITY
F	24	2	BALTIMORE CITY
F	25	3	BALTIMORE CITY
F	33	1	BALTIMORE CITY
F	42	1	BALTIMORE CITY
M	19	1	BALTIMORE CITY
M	24	1	BALTIMORE CITY
M	26	1	BALTIMORE CITY
M	33	1	BALTIMORE CITY
M	34	1	BALTIMORE CITY
M	40	1	BALTIMORE CITY
M	60	1	BALTIMORE CITY
U		1	BALTIMORE CITY
U	18	1	BALTIMORE CITY
U	20	1	BALTIMORE CITY
U	21	1	BALTIMORE CITY
U	24	1	BALTIMORE CITY
U	25	2	BALTIMORE CITY
U	26	1	BALTIMORE CITY
U	27	2	BALTIMORE CITY
U	34	2	BALTIMORE CITY
U	35	1	BALTIMORE CITY
U	37	2	BALTIMORE CITY
U	39	1	BALTIMORE CITY
U	55	1	BALTIMORE CITY
M	22	1	OUT OF STATE
<b>SUBTOTAL</b>		<b>65</b>	
<b>TOTAL</b>		<b>80</b>	

## VIRAL HEPATITIS

ORGANISM	# OF SPECIMENS	POSITIVES	JURISDICTION
HEPATITIS A			
	12	0	BALTIMORE
	1	0	BALTIMORE CITY
	1	0	CAROLINE
	4	0	MONTGOMERY
	2	0	WICOMICO
	1	0	WORCESTER
<b>SUBTOTAL</b>	<b>21</b>	<b>0</b>	
HEPATITIS B			
	64	0	ALLEGANY
	65	0	ANNE ARUNDEL
	48	19	BALTIMORE
	467	19	BALTIMORE CITY
	2	0	CALVERT
	2	0	CAROLINE
	34	1	CARROLL

	110	1	CECIL
	2	0	CHARLES
	97	0	FREDERICK
	17	0	GARRETT
	37	0	HARFORD
	35	2	HOWARD
	3	0	KENT
	224	6	MONTGOMERY
	428	9	PRINCE GEORGES
	2	0	QUEEN ANNES
	1	0	SAINT MARYS
	2	0	SOMERSET
	24	0	TALBOT
	1	0	UNKNOWN
	64	1	WASHINGTON
	124	1	WICOMICO
	1	0	WORCESTER
<b>SUBTOTAL</b>	<b>1,854</b>	<b>40</b>	
HEPATITIS C			
	62	6	ALLEGANY
	78	25	ANNE ARUNDEL
	57	3	BALTIMORE
	486	125	BALTIMORE CITY
	1	0	CALVERT
	1	0	CAROLINE
	36	7	CARROLL
	59	6	CECIL
	2	0	CHARLES
	104	3	FREDERICK
	19	0	GARRETT
	21	1	HARFORD
	15	2	HOWARD
	4	1	KENT
	26	2	MONTGOMERY
	182	2	PRINCE GEORGES
	2	0	QUEEN ANNES
	2	0	SAINT MARYS
	1	1	SOMERSET
	23	0	TALBOT
	1	0	UNKNOWN
	58	12	WASHINGTON
	15	0	WICOMICO
	1	0	WORCESTER
<b>SUBTOTAL</b>	<b>1,256</b>	<b>196</b>	
<b>TOTALS</b>	<b>3,131</b>	<b>236</b>	

## CHLAMYDOPHILIA (CHLAMYDIA) PSITTACI

REPORTED QUARTERLY  
NO REPORT THIS MONTH

## CD4 FLOW CYTOMETRY WORKLOAD

REPORTED QUARTERLY  
NO REPORT THIS MONTH

## PENICILLIN RESISTANT GONORRHEA STATISTICS

REPORTED QUARTERLY  
NO REPORT THIS MONTH

## RABIES

SOURCE	#	JURISDICTION	
BAT	2	BALTIMORE	
	1	CARROLL	
	1	FREDERICK	
	1	KENT	
	3	MONTGOMERY	
	2	PRINCE GEORGE'S	
	1	WICOMICO	
	5	BALTIMORE CITY	
	BEAVER	1	BALTIMORE
		1	CARROLL
		1	HARFORD
	CAT	1	SOMERSET
		1	WICOMICO
	FOX	1	ANNE ARUNDEL
		1	FREDERICK
		1	MONTGOMERY
		1	SOMERSET
1		TALBOT	
1		WASHINGTON	
1		ANNE ARUNDEL	
GROUNDHOG RACCOON	1	BALTIMORE	
	2	CAROLINE	
	1	CARROLL	
	1	CHARLES	
	2	DORCHESTER	
	1	FREDERICK	
	5	HARFORD	
	1	KENT	
	2	MONTGOMERY	
	1	PRINCE GEORGE'S	
	1	QUEEN ANNE'S	
	2	WICOMICO	
	1	WORCESTER	
	1	BALTIMORE CITY	
	1	UNKNOWN	
SKUNK	1	CAROLINE	
	1	PRINCE GEORGE'S	
	1	ST. MARY'S	
<b>TOTAL POSITIVES</b>	<b>54</b>		
<b>TOTAL SPECIMENS</b>	<b>645</b>		

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## NEWBORN & CHILDHOOD SCREENING

STATISTICS FOR AUGUST 2007

PRESUMPTIVE POSITIVES	
DISORDERS	#
PHENYLKETONURIA	1
MAPLE SYRUP URINE DISEASE	14
HOMOCYSTINURIA	5
TYROSINEMIA	4
ARGININEMIA	0
CITRULLINEMIA	0
GALACTOSEMIA	2
BIOTINIDASE DEFICIENCY	1
HYPOTHYROIDISM	94
HEMOGLOBIN -DISEASE	9
HEMOGLOBIN -BENIGN	425
CONGENITAL ADRENAL HYPERPLASIA (CAH)	50
CYSTIC FIBROSIS	2
FATTY ACID OXIDATIONS	22
ORGANIC ACIDEMIAS	1
ACYLCARNITINE - BORDERLINE	8
ACYLCARNITINE - OTHERS	4

MONTHLY TOTALS	
# OF SPECIMENS SCREENED	11,777
NUMBER OF TESTS	977,707
% OF UNSATISFACTORY SPECIMENS	4.5

YEAR-TO-DATE CONFIRMED CASES	
CONDITIONS	# CONFIRMED
MCAD	2
3MCC	1
SCAD	1
VLCAD	1
GA-I	0
3-HYDROXY 3 METHYLGLUTARYL COA LYASE DEFICIENCY (HMG)	1
MAPLE SYRUP URINE DISEASE	1
PKU- CLINICALLY SIGNIFICANT	2
VARIANT HYPERPHENYLALANINEMIA - NOT CLINICALLY SIGNIFICANT	2
GALACTOSEMIA- CLASSICAL GALT DEFICIENCY	1
GALACTOSEMIA - VARIANT	1
BIOTINIDASE DEFICIENCY	0
GALACTOSE EPIMERASE DEFICIENCY	0
GALACTOSE TRANSFERASE DEFICIENCY (GALT CLASSICAL)	1
PARTIAL BIOTINIDASE DEFICIENCY	2
CAH- CLASSICAL SALT WASTING	2
CAH-NON-CLASSICAL	0
HYPOTHYROIDISM - PRIMARY	7
HYPOTHYROIDISM - SECONDARY	1
OTHER HYPOTHYROIDISM	3
SICKLE CELL DISEASE -SS	10
SICKLE CELL DISEASE -SC	5
SICKLE CELL DISEASE -S BETA	2
THALASSEMIA	2
CYSTIC FIBROSIS	2

## HIV ANTIBODY SCREENING – BLOOD (AUGUST 2007)

SPECIMEN SOURCES	TOTAL	POSITIVE EIA	%	POSITIVE WB	%
HEALTH DEPARTMENTS AND CLINICS	2,595	97	3.74%	86	88.66%
HOSPITALS	143	6	4.20%	5	83.33%
DETENTION CENTERS	804	15	1.87%	14	93.33%
PRIVATE PHYSICIANS	7	0	0.00%	0	0.00%
STUDENT HEALTH CLINICS	64	0	0.00%	0	0.00%
EMPLOYEE HEALTH CLINICS	3	0	0.00%	0	0.00%
AUTOPSIES	317	18	5.68%	10	55.56%
ORGAN/TISSUE DONORS	78	3	3.85%	1	33.33%
<b>TOTAL</b>	<b>4,011</b>	<b>139</b>	<b>3.47%</b>	<b>116</b>	<b>83.45%</b>

### ENVIRONMENTAL CHEMISTRY

SAMPLES	# NON-COMPLIANT	# TESTED
<b>ASBESTOS</b>		
AIR	0	0
BULK	3	7
<b>AIR QUALITY</b>		
PM <sub>2.5</sub>	0	420
PM <sub>10</sub>	0	0
<b>RADIATION</b>		
AIR/CHARCOAL FILTERS	0	74
MILK	0	5
WIPES	0	105
RAW WATER	0	12
VEGETATION	0	0
OTHER	0	12
<b>DRINKING WATER</b>		
<b>METALS</b>		
COMMUNITY	4	10
NON-COMMUNITY	0	1
PRIVATE WELLS	86	313
<b>PESTICIDES &amp; PCBs</b>		
COMMUNITY	0	22
NON-COMMUNITY	0	9
PRIVATE WELLS	0	12
<b>VOLATILE ORGANIC COMPOUNDS</b>		
COMMUNITY	2	505
NON-COMMUNITY	0	66
PRIVATE WELLS	0	131
<b>RADIATION</b>		
COMMUNITY	26	55
NON-COMMUNITY	0	0
PRIVATE WELLS	5	13
<b>INORGANICS</b>		
COMMUNITY	1	5
NON-COMMUNITY	3	48
PRIVATE WELLS	6	240
<b>FOOD CHEMISTRY</b>		
SUSPECTED TAMPERING	0	0
MICROSCOPIC FILTH	0	0
LABELING	0	0
SURVEILLANCE	0	1
CHEMICAL CONTAMINATION	0	2
<b>TOTAL</b>	<b>136</b>	<b>2,068</b>

### LEAD ENVIRONMENTAL

TEST	#	ELEV	BRL	UNSAT
TOTAL PAINT	12	6	1	0
TOTAL SOIL	9	5	0	0
DUST FLOOR	507	32	447	0
SILL	562	16	455	0
WELL	317	28	195	1
OTHER	36	7	26	0
<b>TOTAL DUST</b>	<b>1,422</b>	<b>83</b>	<b>1,123</b>	<b>1</b>
<b>GRAND TOTAL</b>	<b>1,443</b>	<b>94</b>	<b>1,124</b>	<b>1</b>

#### INTERPRETATION OF RESULTS:

# = Number of Samples Received

ELEV= Elevated

BRL= Below Reporting Limit

UNSAT = Unsatisfactory

PAINT Positive in excess of 0.5%

SOIL Action level 400 - 5,000 ppm

DUST Clearance limits: Floor/Other 40 ug/sq ft  
Window Sill 250 ug/sq ft  
Window Well 400 ug/sq ft

### LEAD SCREENING - BLOOD LEAD

CLASS	RANGE ug/dl	TESTS # of
<b>MARYLAND</b>		
I	<10	229
IIA	10-14	16
IIB	15-19	15
III	20-44	16
IV	45-69	0
V	>69	0
<b>TOTAL</b>		<b>276</b>
<b>WASHINGTON DC</b>		
I	<10	0
IIA	10-14	1
IIB	15-19	0
III	20-44	0
IV	45-69	0
V	>69	0
<b>TOTAL</b>		<b>1</b>

# CRITICAL LINK

Get on the email list. Send your address to: [criticallink@dhmh.state.md.us](mailto:criticallink@dhmh.state.md.us)

The Critical Link is also available on the web:  
<http://www.dhmh.state.md.us/labs/html/critical-link.html>

## VIRAL LOAD SPECIMENS (AUGUST 2007)

HIV-1 RNA Copies/ml	<10 <sup>3</sup>	10 <sup>3</sup> - 10 <sup>4</sup>	10 <sup>4</sup> - 10 <sup>5</sup>	>10 <sup>5</sup>	TOTALS
ALLEGANY COUNTY HEALTH DEPT.	13	0	1	1	15
CARROLL COUNTY HEALTH DEPT.	1	0	0	0	1
FREDERICK COUNTY HEALTH DEPT.	0	0	1	0	1
MONTGOMERY COUNTY HEALTH DEPT.	99	15	20	10	144
PRINCE GEORGE'S COUNTY HEALTH DEPT.	71	12	15	8	106
SOMERSET COUNTY HEALTH DEPT.	1	0	0	0	1
WASHINGTON COUNTY HEALTH DEPT.	2	1	0	0	3
WICOMICO COUNTY HEALTH DEPT.	2	0	1	1	4
<b>SUBTOTALS</b>	<b>189</b>	<b>28</b>	<b>38</b>	<b>20</b>	<b>275</b>
DEPT. OF CORRECTIONS	90	15	45	17	167
<b>TOTALS</b>	<b>279</b>	<b>43</b>	<b>83</b>	<b>17</b>	<b>442</b>



MAILING LABEL

Maryland Department of Health & Mental Hygiene  
 J. Mehnen Joseph Public Health Laboratory  
 201 West Preston Street  
 Baltimore Maryland 21201

