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CRITICAL LINK

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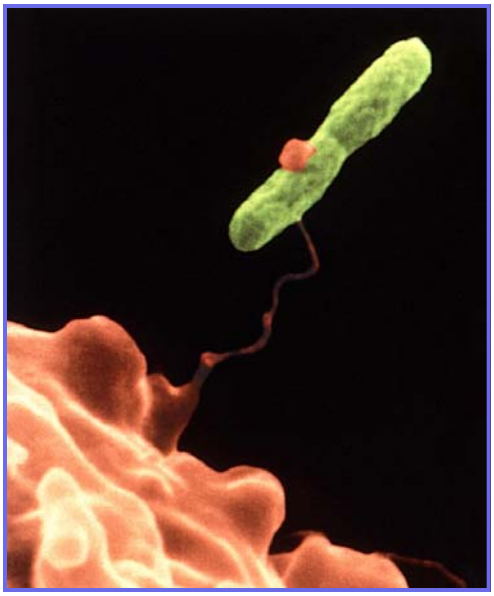
Legionellosis

Legionellosis or Legionaire Disease is caused by infection with Legionella bacteria. Legionnaires' disease acquired its name in 1976 when an outbreak of pneumonia occurred among attendees of an American Legion convention in Philadelphia. Later, the bacterium causing the illness was named *Legionella pneumophila* (pneumophila is Greek for lung-loving). Each year, between 8,000 and 18,000 people are hospitalized with Legionnaires' disease in the U.S. However, many infections are not diagnosed or reported, so this number may be higher.[1] European and North American studies indicated that *Legionella* was the cause of 2 to 15% of all sporadic community acquired pneumonias requiring hospitalization.[11]

Etiology

Legionellae are gram-negative, aerobic, non-sporeforming, rod-shaped, flagellated bacteria. There are 48 species and 70 serogroups in the genus *Legionella*. The species *Legionella pneumophila* causes approximately 90% of all reported cases in the United States. Among 15 different serogroups of *L. pneumophila*, serogroup 1(Lp-1) is reported to be the causative agent among 79% of all laboratory confirmed cases. Within Lp-1 are more than 50 subtypes that can be identified by phenotypic or molecular typing methods.[2] Legionella is widespread in nature with water being the major reservoir in the environment. These bacteria are relatively chlorine tolerant, enabling the organism to survive in all segments of community water distribution systems.[12] The bacterium can infect and replicate within protozoa such as *Acanthamoeba* and *Hartmanella* species, which are free-living amoebae found in both natural and municipal water systems. *Legionella* can survive and grow in the amebic cells, thereby enabling the organism to persist in nature. *Legionella* within the amebic cells can avoid the endosomal-lysosomal pathway and can replicate within the phagosome. When human infections occur, *Legionella* persist (reside) in human macrophages and monocytes, and intracellular replication of the bacterium is observed within these cells in the alveoli.[3]



This electron micrograph depicts an amoeba, *Hartmannella vermiformis* (orange) as it entraps a *Legionella pneumophila* bacterium (green) with an extended pseudopod Photo courtesy of the CDC Image Library.

Clinical Presentation

Legionellosis is associated with two clinically and epidemiologically distinct illnesses: Legionaire Disease (LD) and Pontiac fever. LD varies in severity from mild to

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severe pneumonia, characterized by fever, cough, and progressive respiratory distress. LD can be associated with chills; myalgias; and gastrointestinal tract, central nervous system, and renal manifestations. Respiratory failure and death may occur. These symptoms usually begin 2 to 14 days after being exposed to the bacteria. Pontiac fever is a milder febrile illness without pneumonia that occurs in outbreaks or clusters and is characterized by an abrupt onset and a self-limited, influenza-like manifestation. Fever usually lasts for two to five days and may be accompanied by headaches and muscle aches. Symptoms go away on their own without treatment and without causing further problems. Azithromycin, levofloxacin and erythromycin are the antibiotics currently recommended for treating persons with LD.[3] Death occurs in 10-15% of all LD cases or all "treated" cases. A substantially higher proportion of fatal cases occur during nosocomial (hospital acquired) outbreaks.[1]

Transmission

Direct inhalation is the most common method of transmission, with aerosol-generating systems playing a crucial role. Person-to-person transmission has not been documented. The highest incidence occurs during the warmer months, when air conditioning systems are used more frequently. Nosocomial acquisition likely occurs via aspiration, respiratory therapy equipment, or contaminated water. Transmission has also been linked to the use of humidifiers, nebulizers, and items that were rinsed with contaminated tap water. Increased colonization of *Legionella* in man-made water environments has been linked to: (a) temperature of 25-42°C, (b) stagnation, (c) biofilm, deposits, scale, and sediment, (d) presence of certain free-living aquatic amoebae capable of supporting growth of Legionellae, (e) water pH 5.0-8.5, and (f) other non–pathogenic bacteria in water (microbiota) that supply essential nutrients for growth.[4]

Epidemiology

LD is reportable in all 50 states. In 2005, over 2,300 LD cases were reported nationally, including 112 in Maryland. However, only 5-10% of all cases are reported to public health. LD mostly occurs as sporadic cases, with only 10-20% linked to outbreaks. LD cases are reported throughout the year, although more cases are reported in the late summer and fall months. Nationwide, since 2003, LD rates in the US have risen slightly for unknown reasons.[13]

Higher risk of acquiring LD has been identified[3] in patients who: are older or who smoke heavily; have weakened immune systems (such as cancer patients or HIV-infected individuals) or certain underlying medical conditions, such as diabetes or chronic renal failure on dialysis; take certain drugs such as corticosteroids; or drink alcohol heavily.

The mortality rate for nosocomial (healthcare-associated) LD may approach 50% in patients with an underlying disease. In untreated patients, the mortality rate may be as high as 80%. Generally, the mortality rate for nosocomial LD cases (40%) is twice that of community-acquired cases (20%). In some communities, community-acquired LD occurs more commonly than nosocomial LD.

Diagnosis

The clinical symptoms of LD are indistinguishable from the symptoms of other causes of pneumonia. Therefore accurate laboratory diagnostic methods are needed for identification of Legionella. The diagnosis is confirmed in the laboratory by culture, demonstration of antigen in body fluids (urine), or detection of antibody responses.

Culture/Isolation

Isolation by culture is the preferred diagnostic method. Culturing of seropositive patients with a fourfold rise in antibody titer (between acute convalescent sera), and a sensitivity of nearly 60% and a specificity of nearly 100%. A number of factors limit the sensitivity of culture. Ideally, a specimen for culture should be taken before antibiotic treatment is initiated. Respiratory secretions from sputum, bronchial alveolar lavage (BAL),

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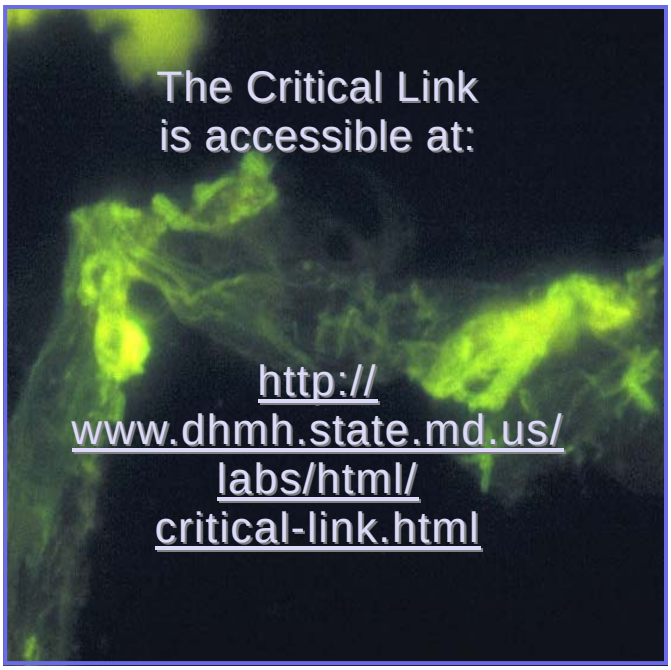

Positive indirect FA test for *Legionella pneumophila*. Photo courtesy of the CDC Image Library.

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and bronchial aspirates are considered the specimens of choice. *Legionella* survives poorly in respiratory secretions and immediate specimen processing of culture is critical. Pretreatment of the specimen with heat or acidification can reduce other microflora. Identification of Legionella spp. is carried out using buffered charcoal yeast extract (BCYE) agar containing L-cysteine. Supplements such as cefamandole, polymixin B or anisomycin are used to reduce the competing microflora and increase selectivity of media. Suspected colonies of *Legionella* species are identified by growth on selective and differential media and confirmed by direct fluorescent assay (DFA) antibody testing.[5]

Direct Fluorescent Assay

Microscopic detection of *Legionella* in body fluids and tissue by DFA is a rapid method for identifying *Legionella* species. However, the sensitivity of DFA ranges from 25-75%. DFA specificity is 80-90%. Serological cross-reactions with non-*Legionella* bacteria have been reported against several *Legionella* species.[3]

Serological Testing

Indirect immunofluorescence assay (IFA), enzyme immunofluorescence assay (EIA), and microagglutination have been used for detection of antibody for *L. pneumophila*. In the clinical setting serology has had limited usefulness because a fourfold rise in antibody titer from specimens obtained three to six weeks apart is necessary to make a definitive clinical diagnosis. Patients with non-legionellosis pneumonia and bacteremia have been found to demonstrate falsely-positive *Legionella* serology results. Antibodies produced in response to infections with *Bacteroides fragilis*, *Chlamydia psittaci*, mycobacteria, mycoplasmas, campylobacters, *Haemophilus influenzae, Coxiella burnetii, Rickettsia typhi, Proteus vulgaris OX19* and *Pseudomonas aeruginosa* in cystic fibrosis patients also have been shown to be cross-reactive in *Legionella* serological tests.[6] Cross-reactions occur more frequently with non-*L. pneumophila* species. The sensitivity of *Legionella* serological assays ranges between 70-90% and specificity ranges between 50-99%.[5]

Urine Antigen Detection

The use of EIA or the immunochromatographic assay for detecting *L. pneumophila* serogroup 1 antigen in urine is currently the most frequently used diagnostic test. Rapid testing of urine for *L. pneumophila* antigen is easy to perform and has excellent sensitivity (77-99%) and specificity (99-100%) for *L. pneumophila* serogroup 1. Urinary antigen testing has led to the recognition of outbreaks of LD and allows a rapid public health response.[7] In addition, urine antigen testing permits early diagnosis and initiation of appropriate antibiotic therapy. However, it can only detect infections with *L. pneumophila* serogroup 1.

Polymerase Chain Reaction (PCR)

The ribosomal RNA (rRNA) genes have been used for PCR assay targeting the *Legionella* genus, and the macrophage infectivity potentiator (*mip*) gene has been used as a specific assay for *L. pneumophila*. Currently there is insufficient data to reliably estimate PCR sensitivity and specificity or to compare PCR to other methods. Recently, several researchers have reported on the use of real-time PCR that utilizes hybridization probes to confirm the product identity for rapid detection of legionellae in clinical specimens.[8]

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Testing Environmental Samples

Isolation of *Legionella* from environmental samples helps to identify the source in outbreak investigations. It also helps assess the effectiveness of remedial action. Proper environmental samples should be collected for microbial analysis. It is necessary to concentrate the sample and suppress the competing background flora during primary culture. Culture results provide useful information about the degree of *Legionella* contamination in a water system. It is difficult to interpret the colony count values for Legionella in relation to disease risk. Higher colony counts per unit volume result in a higher exposure, which could be related to a higher infection risk.

Serotyping /Subtyping of *L. pneumophila*

L. pneumophila serogroup 1 comprises a fairly heterogeneous group of organisms that accounts for most cases of legionellosis in the United States. *L. pneumophila* serogroup 1 can be divided into a number of subtypes by various phenotypic and genotypic techniques. These procedures are used to match environmental isolates with patient isolates obtained from outbreak investigations of Legionellosis.[9] Because of the diversity within *L. pneumophila* serogroup 1, clinical and environmental isolates must be matched by molecular techniques to adequately identify environmental sources of the disease. Molecular assays promise increased sensitivity and specificity, although further validation is required. Molecular techniques such as pulsed field gel electrophoresis (PFGE) and arbitrarily primed PCR (AP-PCR) are able to discriminate within monoclonal subtype of *L. pneumophila* serogroup 1 and identify the source of the disease causing strain.[10]

Available testing

The Laboratories Administration provides Legionella testing for both clinical specimens and environmental samples. Isolation and identification of *Legionella* by culture, serum antibody testing, and urine antigen tests are performed for clinical diagnostic purposes. Isolation and identification of *Legionella* from environmental water samples are conducted exclusively in support of investigations of suspected outbreaks. PFGE is performed only when both clinical and environmental Legionella isolates are obtained and are epidemiologically linked to the same suspected outbreak of Legionellosis. Questions concerning *Legionella* testing may be directed to subject matter experts the by calling (410)767-5837.

This article compiled by Dr. Leena Trivedi.

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[1] Legionellosis http://www.cdc.gov/ncidod/dbmd/diseaseinfo/legionellosis_g.htm [CDC website].

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Rabies Update by Species

From 2002 through 2006, the Laboratories Administration has confirmed one or more cases of rabies in 14 different animal species. However, both in Maryland and throughout the U.S., rabies is maintained in wildlife populations. Maryland data in Table 1 shows that the numbers of cases in primary species (bat, fox, raccoon, and skunk) accounted for 92.1% of all animals testing positive. This percentage matches very closely to CDC data from 2004 for the entire country. In that year, wild animals accounted for 92% of all cases of rabies reported nationally.[1] In Maryland, raccoons continue to make up the majority (68.4%) of animals known to have rabies.

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Rabies Update by Species

In Maryland, spillover species (species that are usually infected by contact with primary species) accounted for the remaining 7.9% of positive cases. Positive cats accounted for 4.7% of all cases testing positive in Maryland from 2002-2006. Along the East Coast, most cases of rabies in cats were reported from states in which the raccoon rabies virus variant is present.[1] There may be a positive correlation between rabies in raccoons and higher rabies spillover into cats.

Table 1. Laboratory confirmed cases of rabies in animals: Maryland 2002-2006.[2]

Species	2002	2003	2004	2005	2006	Totals
Bat	35	10	23	41	44	**153**
Beaver	0	0	1	1	0	**2**
Cat	11	21	14	28	15	**89**
Cow	2	1	2	1	2	**8**
Deer	1	0	1	0	1	**3**
Dog	1	2	1	0	1	**5**
Ferret	0	1	0	0	0	**1**
Fox	30	37	24	38	41	**170**
Groundhog	7	11	5	2	10	**35**
Horse	3	1	0	0	0	**4**
Opossum	0	1	0	0	0	**1**
Pig	0	1	0	0	0	**1**
Raccoon	272	269	244	242	272	**1299**
Skunk	34	16	22	26	27	**125**
Totals	**396**	**371**	**337**	**379**	**413**	**1896**

References

[1] Krebs, J.W., et al. 2005. *JAVMA*, 227(12):1912-1925.
[2] http://www.edcp.org/vet_med/rabies_tables-graphs.html

Rabies Zoonosis Laboratory Personnel, from left to right; Barbara Fremd, Naomi Barker, Algernon Prioleau, Anthony Valdez, Stephen Longdo, Laura Montague, and Dr. Robert Myers.

Laboratory Statistics

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

* 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 beigelii* complex.
***Alpha streptococci other than *S. pneumoniae* and *Enterococcus*

REPORTED 2/01/07 - 2/28/07

ENTERIC BACTERIOLOGY

GENUS SEROVAR	SEX	AGE	#	JURISDICTION
CAMPYLOBACTER JEJUNI				
	F	15	1	ALLEGANY
	M	55	1	BALTIMORE
	F		1	GARRETT
	F	35	1	HARFORD
	M	26	1	MONTGOMERY
	F	40	1	UNKNOWN
ESCHERICHIA COLI O157:H7				
	U		1	BALTIMORE
SALMONELLA ADELAIDE				
	M		1	PRINCE GEORGE'S
SALMONELLA AGONA				
	M	1	1	CAROLINE
SALMONELLA BARDO				
	M	25	1	ST. MARY'S
SALMONELLA BERTA				
	F	3	1	BALTIMORE
	M		1	BALTIMORE
	M	3	1	BALTIMORE
SALMONELLA ENTERITIDIS				
	F	1	1	BALTIMORE
	M	3	1	BALTIMORE
	M	9	1	BALTIMORE
	M	44	1	BALTIMORE
	F	28	1	MONTGOMERY
	F	18	1	PRINCE GEORGE'S
	F	34	1	PRINCE GEORGE'S
	M	15	1	PRINCE GEORGE'S
	F		2	BALTIMORE CITY
	F	1	2	BALTIMORE CITY
	F	21	1	BALTIMORE CITY
	M		1	BALTIMORE CITY
	M	33	1	BALTIMORE CITY
	U		2	BALTIMORE CITY
	F	66	1	OUT OF STATE
SALMONELLA I 47:z4,z23:-				
	F	58	1	MONTGOMERY
	F		1	OUT OF STATE
SALMONELLA II 58:c:z6				
	M	1	1	ANNE ARUNDEL
	M		1	CALVERT
SALMONELLA JAVIANA				
	M		1	BALTIMORE CITY
SALMONELLA MIAMI				
	M	50	1	BALTIMORE
SALMONELLA MONTEVIDEO				
	F	16	1	FREDERICK
	M	58	1	GARRETT
	M	26	1	MONTGOMERY
SALMONELLA NEWPORT				
	M	21	1	MONTGOMERY

SALMONELLA ORANIENBURG			
M	19	1	BALTIMORE
M		1	WICOMICO
M	1	1	WICOMICO
U		1	BALTIMORE CITY
SALMONELLA PARATYPHI A			
F	42	1	BALTIMORE
SALMONELLA STANLEYVILLE			
F	3	1	HARFORD
SALMONELLA TENNESSEE			
U	47	1	OUT OF STATE
SALMONELLA THOMPSON			
M	9	1	HARFORD
F	50	1	OUT OF STATE
SALMONELLA TYPHI			
F	56	1	CHARLES
SALMONELLA TYPHIMURIUM			
F	3	1	BALTIMORE
M	1	1	CALVERT
M	3	1	CALVERT
M	1	1	FREDERICK
M	1	1	HOWARD
M		1	MONTGOMERY
F		1	PRINCE GEORGE'S
M	1	1	WICOMICO
M		1	BALTIMORE CITY
M	1	1	BALTIMORE CITY
U		1	OUT OF STATE
U	42	1	OUT OF STATE
SALMONELLA TYPHIMURIUM VAR COPENHAGEN			
F	1	1	WICOMICO
U	8	1	BALTIMORE CITY
U		2	OUT OF STATE
SALMONELLA UGANDA			
U	35	1	OUT OF STATE
SALMONELLA URBANA			
M		1	MONTGOMERY
SALMONELLA 4,12:i:-			
M	67	1	OUT OF STATE
SALMONELLA 4,5,12:i:-			
U		1	OUT OF STATE
SHIGELLA SONNEI			
F	58	1	ALLEGANY
M	11	1	MONTGOMERY
U	18	1	PRINCE GEORGE'S
U	7	1	OUT OF STATE
U	8	1	OUT OF STATE
TOTAL		**76**	

ISOLATES – THROAT CULTURES

COUNTY	GROUP A[1]	NON-GROUP A
ALLEGANY	6	17
ANNE ARUNDEL	0	1
BALTIMORE CITY	0	2
BALTIMORE	2	1
MONTGOMERY	1	0
PRINCE GEORGE'S	0	5
SOMERSET	2	4
WICOMICO	2	4
TOTAL	**13**	**34**

[1] *Streptococcus pyogenes*

BACTERIOLOGY IDENTIFICATIONS

Referrals

GENUS SPECIES SOURCE	#	JURISDICTION
HAEMOPHILUS INFLUENZAE NON-TYPEABLE		
BLOOD	1	BALTIMORE
BLOOD	1	BALTIMORE CITY
BLOOD	1	CARROLL
BLOOD	1	CECIL
BLOOD	1	FREDERICK
BLOOD	2	PRINCE GEORGE'S
HAEMOPHILUS INFLUENZAE SEROTYPE F		
BLOOD	1	BALTIMORE
NEISSERIA MENINGITIDIS		
THROAT	1	ALLEGANY
NEISSERIA MENINGITIDIS SEROGROUP Y		
BLOOD	1	CHARLES
BLOOD	1	MONTGOMERY
VIBRIO HOLLISAE		
STOOL	1	ANNE ARUNDEL
TOTAL	**12**	

ISOLATES – MISCELLANEOUS

GENUS SPECIES SOURCE	#	JURISDICTION
BACILLUS SPECIES		
TOE	1	FREDERICK
CORYNEBACTERIUM SPECIES		
BLOOD	1	BALTIMORE CITY
PENIS	1	CECIL
TOE	2	FREDERICK
WOUND	1	MONTGOMERY
EYE	1	MONTGOMERY
ENTEROBACTER CLOACAE		
FOOT	1	FREDERICK
ENTEROCOCCUS FAECALIS		
BLOOD	2	BALTIMORE CITY
TOE	1	FREDERICK
ESCHERICHIA COLI		
BLOOD	1	BALTIMORE CITY
VAGINAL	2	CECIL
WOUND	1	FREDERICK
GARDNERELLA VAGINALIS		
VAGINAL	2	CECIL
VAGINAL	1	PRINCE GEORGE'S
VAGINAL	14	SOMERSET
KLEBSIELLA PNEUMONIAE		
VAGINAL	1	CECIL
LACTOBACILLUS SPECIES		
BLOOD	1	BALTIMORE CITY
NEISSERIA MENINGITIDIS SEROGROUP C		
CSF	1	BALTIMORE CITY
PANTOEA AGGLOMERANS		
TOE	1	FREDERICK
PROTEUS MIRABILIS		
WOUND	1	FREDERICK
PSEUDOMONAS AERUGINOSA		
WOUND	1	FREDERICK

FOOT	1	FREDERICK
TOE	1	FREDERICK
SALMONELLA SPECIES		
BLOOD	1	BALTIMORE CITY
CSF	1	BALTIMORE CITY
STAPHYLOCOCCUS AUREUS		
BLOOD	1	BALTIMORE CITY
LUNG	2	BALTIMORE CITY
CLAVICLE	1	CARROLL
BUTTOCK	1	CARROLL
LEG	1	CARROLL
ULCER	1	CARROLL
LESION	1	CECIL
SPUTUM	3	FREDERICK
FOOT	1	FREDERICK
TOE	2	FREDERICK
WOUND	1	HOWARD
TOE	2	MONTGOMERY
WOUND	1	MONTGOMERY
WOUND	1	PRINCE GEORGE'S
VAGINAL	3	SOMERSET
STAPHYLOCOCCUS EPIDERMIDIS		
BLOOD	4	BALTIMORE CITY
STAPHYLOCOCCUS HAEMOLYTICUS		
BLOOD	1	BALTIMORE CITY
STAPHYLOCOCCUS SPECIES		
BLOOD	2	BALTIMORE CITY
CSF	2	BALTIMORE CITY
ANKLE	1	CARROLL
PENIS	1	CECIL
VAGINAL	1	CECIL
WOUND	1	FREDERICK
TOE	4	FREDERICK
WOUND	1	HOWARD
EYE	1	WASHINGTON
STREPTOCOCCUS ALPHA-HEMOLYTIC		
BLOOD	5	BALTIMORE CITY
CSF	1	BALTIMORE CITY
STREPTOCOCCUS BETA-HEMOLYTIC GROUP A		
BLOOD	1	BALTIMORE CITY
STREPTOCOCCUS BETA-HEMOLYTIC GROUP B		
VAGINAL	3	ANNE ARUNDEL
BLOOD	1	BALTIMORE CITY
VAGINAL	1	CECIL
FOOT	1	FREDERICK
VAGINAL	2	HOWARD
VAGINAL	4	PRINCE GEORGE'S
VAGINAL	5	SOMERSET
STREPTOCOCCUS INTERMEDIUS		
BLOOD	2	BALTIMORE CITY
STREPTOCOCCUS NON-HEMOLYTIC		
BLOOD	1	BALTIMORE CITY
STREPTOCOCCUS ORALIS		
BLOOD	1	BALTIMORE CITY
TOTAL	**111**	

The services and facilities of the Maryland Department of Health and Mental Hygiene (DHMH) are operated on a non-discriminatory basis. This policy prohibits discrimination on the basis of age; ancestry; color; creed; marital status; mental or physical disability; national origin; race; religious affiliation, belief, or opinion; sex; or sexual orientation and applies to the provisions of employment and granting of advantages, privileges and accommodations. The Department, in compliance with the Americans with Disabilities Act, ensures that qualified individuals with disabilities are given an opportunity to participate in and benefit from DHMH services, programs, benefits, and employment opportunities.

SEXUALLY TRANSMITTED DISEASES

GENUS SPECIES SEX	#	JURISDICTION
NEISSERIA GONORRHEAE		
F	3	ANNE ARUNDEL
M	1	ANNE ARUNDEL
M	2	BALTIMORE
F	0	CAROLINE
M	1	CAROLINE
F	1	CARROLL
F	1	CECIL
F	2	CHARLES
M	1	CHARLES
F	1	FREDERICK
M	1	FREDERICK
F	1	HARFORD
F	0	KENT
M	2	KENT
F	2	MONTGOMERY
M	2	MONTGOMERY
F	6	PRINCE GEORGE'S
M	38	PRINCE GEORGE'S
F	2	QUEEN ANNE'S
M	1	QUEEN ANNE'S
M	1	ST. MARY'S
F	0	SOMERSET
M	2	SOMERSET
F	1	TALBOT
M	0	TALBOT
M	1	WASHINGTON CO
F	5	WICOMICO
M	5	WICOMICO
F	2	BALTIMORE CITY
M	3	BALTIMORE CITY
TOTAL	**88**	
SYPHILIS SEROLOGY		
F	1	ALLEGANY
M	1	ALLEGANY
F	10	ANNE ARUNDEL
M	8	ANNE ARUNDEL
F	9	BALTIMORE
M	10	BALTIMORE
U	1	BALTIMORE
F	1	CAROLINE
M	1	CARROLL
F	1	CHARLES
F	2	FREDERICK
M	2	HARFORD
F	2	HOWARD
M	2	HOWARD
F	11	MONTGOMERY
M	5	MONTGOMERY
F	12	PRINCE GEORGE'S
M	29	PRINCE GEORGE'S
F	1	ST. MARY'S
M	1	ST. MARY'S
F	1	TALBOT
M	1	TALBOT
F	2	WASHINGTON
M	2	WASHINGTON
F	3	WICOMICO
M	3	WICOMICO
M	1	WORCESTER
F	19	BALTIMORE CITY
M	38	BALTIMORE CITY
U	1	BALTIMORE CITY
F	2	OUT OF STATE
M	1	OUT OF STATE
TOTAL	**184**	

CHLAMYDIA TRACHOMATIS

F	6	ALLEGANY
M	4	ALLEGANY
F	18	ANNE ARUNDEL
M	16	ANNE ARUNDEL
F	18	BALTIMORE
M	7	BALTIMORE
F	4	CALVERT
F	2	CAROLINE
M	2	CAROLINE
F	3	CARROLL
F	3	CECIL
M	3	CECIL
F	10	CHARLES
M	9	CHARLES
F	2	DORCHESTER
F	12	FREDERICK
M	1	FREDERICK
F	11	HARFORD
M	6	HARFORD
F	4	HOWARD
M	1	HOWARD
M	4	KENT
F	17	MONTGOMERY
M	19	MONTGOMERY
U	1	MONTGOMERY
F	64	PRINCE GEORGE'S
M	21	PRINCE GEORGE'S
F	1	QUEEN ANNE'S
M	1	QUEEN ANNE'S
F	3	ST. MARY'S
M	3	ST. MARY'S
F	2	SOMERSET
M	1	SOMERSET
F	3	TALBOT
F	5	WASHINGTON
M	4	WASHINGTON
F	12	WICOMICO
M	4	WICOMICO
F	3	WORCESTER
F	7	BALTIMORE CITY
M	14	BALTIMORE CITY
F	2	OUT OF STATE
M	1	OUT OF STATE
TOTAL	**334**	

MYCOBACTERIOLOGY

GENUS SPECIES

SEX	AGE	#	JURISDICTION
MYCOBACTERIUM TUBERCULOSIS			
M	64	1	ANNE ARUNDEL
M	21	1	BALTIMORE
F	66	1	MONTGOMERY
F	24	1	PRINCE GEORGE'S
M	50	1	BALTIMORE CITY
MYCOBACTERIUM TUBERCULOSIS COMPLEX			
F	41	1	ANNE ARUNDEL
F	35	1	BALTIMORE
F	39	1	BALTIMORE
M	36	1	BALTIMORE
M	45	1	BALTIMORE
M	91	1	BALTIMORE
M	30	1	CARROLL
M	49	1	CECIL
F	51	1	CHARLES
F	49	1	MONTGOMERY
F	55	1	MONTGOMERY
F	63	1	MONTGOMERY
F	76	1	MONTGOMERY
F	78	1	MONTGOMERY
M	21	1	MONTGOMERY
M	24	1	MONTGOMERY
M	26	1	MONTGOMERY
M	39	1	MONTGOMERY
M	54	1	MONTGOMERY
M	73	1	MONTGOMERY
F	24	1	PRINCE GEORGE'S
F	50	1	PRINCE GEORGE'S
F	60	1	PRINCE GEORGE'S
F	64	1	PRINCE GEORGE'S
M	20	1	PRINCE GEORGE'S
M	28	2	PRINCE GEORGE'S
M	34	1	PRINCE GEORGE'S
M	38	1	PRINCE GEORGE'S
M	47	1	PRINCE GEORGE'S
M	63	1	PRINCE GEORGE'S
M	66	1	PRINCE GEORGE'S
M	78	1	PRINCE GEORGE'S
F	65	1	BALTIMORE CITY
F	77	1	BALTIMORE CITY
M	41	1	BALTIMORE CITY
M	50	1	BALTIMORE CITY
M	51	1	BALTIMORE CITY
F	27	1	OUT OF STATE
M	22	1	OUT OF STATE
MYCOBACTERIUM ABSCESSUS			
M		1	ANNE ARUNDEL
MYCOBACTERIUM AVIUM COMPLEX			
M	50	2	ALLEGANY
M	82	1	BALTIMORE
F	52	1	CARROLL
M	81	1	CARROLL
F	43	1	FREDERICK
F	54	2	FREDERICK
F	70	1	FREDERICK
M	66	1	FREDERICK
M	59	1	MONTGOMERY
F	92	1	WICOMICO
M	72	1	WICOMICO
M	56	1	WORCESTER
M	53	1	BALTIMORE CITY
M	56	1	BALTIMORE CITY
M	57	1	BALTIMORE CITY
M	87	1	BALTIMORE CITY
M	51	2	OUT OF STATE
MYCOBACTERIUM CHELONAE			
F	36	1	MONTGOMERY
MYCOBACTERIUM FORTUITUM			
F	59	1	BALTIMORE CITY
MYCOBACTERIUM FORTUITUM COMPLEX			
F	74	1	BALTIMORE
M	60	1	BALTIMORE
M	85	1	CARROLL
M	54	1	MONTGOMERY
F	24	1	PRINCE GEORGE'S
F	32	1	BALTIMORE CITY
MYCOBACTERIUM GORDONAE			
F	43	1	MONTGOMERY
F	55	1	MONTGOMERY
F	86	1	MONTGOMERY
M	73	1	MONTGOMERY
M	28	1	PRINCE GEORGE'S
M	42	1	PRINCE GEORGE'S
M	72	1	PRINCE GEORGE'S
M	72	1	WICOMICO
MYCOBACTERIUM KANSASII			
F	83	1	BALTIMORE CITY
M	46	1	BALTIMORE CITY
MYCOBACTERIUM MARINUM			
U		1	ANNE ARUNDEL
M	69	1	QUEEN ANNE'S
TOTAL		**86**	

MYCOBACTERIUM SUSCEPTIBILITY RESULTS

DURING FEBRUARY, 2007, SUSCEPTIBILITY RESULTS WERE REPORTED ON 30 ISOLATES OF *M. TUBERCULOSIS* COMPLEX.*

6 DRUG RESISTANT STRAINS WERE IDENTIFIED:

#	JURISDICTION	DRUG RESISTANCE
1	MONTGOMERY	® to STREPTOMYCIN
1	MONTGOMERY	® to ISONIAZID
1	MONTGOMERY	® to STREPTOMYCIN and ISONIAZID
1	WASHINGTON CO	® to STREPTOMYCIN
1	BALTIMORE CITY	® to STREPTOMYCIN
1	WASHINGTON DC	® to STREPTOMYCIN and ISONIAZID

* *Mycobacterium tuberculosis* complex consists of:
M. tuberculosis
M. bovis
M. bovis, BCG
M. africanum
M. microti
M. canettii

® RESISTANT

MYCOLOGY

SEX	AGE	#	JURISDICTION
GENUS SPECIES			
ALTERNARIA SP			
M	63	1	ALLEGANY
M	76	1	DORCHESTER
M	56	1	BALTIMORE CITY
ASPERGILLUS FLAVUS			
M	86	1	ANNE ARUNDEL
ASPERGILLUS FUMIGATUS			
M	82	1	CALVERT
F	37	1	CAROLINE
F	73	1	CECIL
M	25	1	CECIL
M	81	1	MONTGOMERY
F	65	1	TALBOT
M	6	1	WICOMICO
F	67	1	OUT OF STATE
ASPERGILLUS NIGER			
M	62	1	CHARLES
M	71	1	CHARLES
ASPERGILLUS TERREUS			
F	81	1	TALBOT
ASPERGILLUS VERSICOLOR GROUP			
F	71	1	ANNE ARUNDEL
F	79	1	ANNE ARUNDEL
M		1	ANNE ARUNDEL
M	56	1	ANNE ARUNDEL
U		1	TALBOT
BEAUVERIA SP			
F	63	1	CARROLL
BIPOLARIS SP			
U		1	ANNE ARUNDEL
U		1	WICOMICO
CANDIDA ALBICANS			
F	19	1	ANNE ARUNDEL
F	20	1	ANNE ARUNDEL
F	22	1	ANNE ARUNDEL
F	24	2	ANNE ARUNDEL
F	26	1	ANNE ARUNDEL
F	34	1	ANNE ARUNDEL
M	84	1	BALTIMORE
F	50	1	CALVERT
F	58	1	CALVERT
F	61	1	CALVERT
F	68	1	CALVERT
M	77	1	CALVERT
F	18	1	CECIL
F	42	1	CECIL
F	56	1	CECIL
M	20	1	CECIL
M	29	1	CECIL
M	39	1	CHARLES
M	74	1	FREDERICK
M	58	1	HARFORD
F	18	1	HOWARD
F	24	1	HOWARD
F		1	MONTGOMERY
F	21	1	MONTGOMERY
F	26	1	MONTGOMERY
F	38	1	MONTGOMERY
F	65	1	MONTGOMERY
M	32	1	MONTGOMERY
M	47	1	MONTGOMERY
M	54	1	MONTGOMERY
F	20	1	PRINCE GEORGE'S
F	21	1	PRINCE GEORGE'S
F	26	1	PRINCE GEORGE'S
F	60	1	PRINCE GEORGE'S
M	67	1	PRINCE GEORGE'S
M	76	1	PRINCE GEORGE'S
M	85	1	PRINCE GEORGE'S
U	27	1	PRINCE GEORGE'S
F	17	1	SOMERSET
F	19	2	SOMERSET
F	20	5	SOMERSET
F	23	1	SOMERSET
U		1	SOMERSET
U	20	1	SOMERSET
U	22	1	SOMERSET
F	36	1	BALTIMORE CITY
F	41	1	BALTIMORE CITY
F	81	1	BALTIMORE CITY
M	43	1	BALTIMORE CITY
M	49	1	BALTIMORE CITY
M	64	1	BALTIMORE CITY
F	39	1	OUT OF STATE
F	49	1	OUT OF STATE
M	37	1	OUT OF STATE
M	50	1	OUT OF STATE
CANDIDA GLABRATA			
F	56	1	CECIL
F	81	1	MONTGOMERY
U	1	1	MONTGOMERY
M	75	1	PRINCE GEORGE'S
M	55	1	OUT OF STATE
CANDIDA LIPOLYTICA			
U		1	BALTIMORE CITY
CANDIDA PARAPSILOSIS			
M	84	1	BALTIMORE
M	54	1	FREDERICK
F	86	1	MONTGOMERY
F	47	1	PRINCE GEORGE'S
F	68	1	BALTIMORE CITY
CANDIDA TROPICALIS			
U	39	1	PRINCE GEORGE'S
CHAETOMIUM SP			
F	5	1	WICOMICO

COCCIDIOIDES IMMITIS				
	M	62	1	OUT OF STATE
EPICOCCUM SP				
	M		1	TALBOT
EXOPHIALA SP				
	M	55	1	CHARLES
FUSARIUM SP				
	F	40	1	DORCHESTER
	F	90	1	FREDERICK
	F		1	TALBOT
MUCOR SP				
	U	1	1	MONTGOMERY
	F	5	1	BALTIMORE CITY
NOCARDIA ASTEROIDES COMPLEX				
	F	73	1	BALTIMORE
NOCARDIA NOVA				
	M	66	1	WICOMICO
PAECILOMYCES SP				
	M	41	1	CECIL
PAPULARIA SP				
	M	55	1	ALLEGANY
PENICILLIUM SP				
	M	3	1	ALLEGANY
	M	50	1	ALLEGANY
	U		1	WASHINGTON
	F	92	1	WICOMICO
PHOMA SP				
	F		1	TALBOT
RHIZOPUS ORYZAE				
	M	68	1	BALTIMORE
	M	32	1	CARROLL
RHODOTORULA MUCILAGINOSA				
	M	54	1	OUT OF STATE
RHODOTORULA SP				
	M	88	1	DORCHESTER
	F	49	1	OUT OF STATE
SCOPULARIOPSIS SP				
	M	91	1	BALTIMORE
SCYTALIDIUM SP				
	U	58	1	CARROLL
	M	56	1	WICOMICO
TRICHOPHYTON RUBRUM				
	M	21	1	CECIL
	F	33	1	DORCHESTER
TRICHOPHYTON SP				
	M	44	1	HARFORD
TRICHOPHYTON TONSURANS				
	F		1	TALBOT
	U		2	TALBOT
	M	3	1	BALTIMORE CITY
	M	4	1	BALTIMORE CITY
TRICHOSPORON ASAHII				
	M	77	1	MONTGOMERY
TRICHOSPORON INKIN				
	M	51	1	HARFORD
TOTAL			**132**	

WATER MICROBIOLOGY

	# TESTED	# NON-COMPLIANT
COMMUNITY	4	0
NON-COMMUNITY	284	34
TOTAL	**288**	**34**

PARASITOLOGY

GENUS SPECIES	#	JURISDICTION
PROTOZOA		
BLASTOCYSTIS HOMINIS	1	ANNE ARUNDEL
	1	MONTGOMERY
ENDOLIMAX NANA	1	MONTGOMERY
ENTAMOEBA COLI	1	MONTGOMERY
	2	PRINCE GEORGE'S
ENTAMOEBA HARTMANNI	1	MONTGOMERY
GIARDIA LAMBLIA	6	MONTGOMERY
	1	PRINCE GEORGE'S
	2	WASHINGTON
IODAMOEBA BUTSCHLII	1	PRINCE GEORGE'S
TOTAL	**17**	
NEMATODES		
ENTEROBIUS VERMICULARIS	1	WASHINGTON
TOTAL	**1**	

ARTHROPOD IDENTIFICATION

NO STATISTICS RECEIVED

TICK IDENTIFICATION

NO STATISTICS RECEIVED

FOOD SAFETY

FOOD AND SHELLFISH MICROBIOLOGY

	# OF SAMPLES	NOTABLE PATHOGENS
FOOD	2	0
		# STANDARDS EXCEEDED *
CRABMEAT	0	0
		# STANDARDS EXCEEDED **
SHELLFISH	0	0
SHELLFISH GROWING WATERS	21	
TOTAL	**23**	**0**

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

VIRUS ISOLATION

ISOLATE	SEX	AGE	#	JURISDICTION
INFLUENZA A				
	F	18	1	CALVERT
	F	50	1	CALVERT
	F	88	1	CALVERT
	M	30	1	CALVERT
	M	2	2	PRINCE GEORGE'S
	M	5	1	PRINCE GEORGE'S
	M	18	1	PRINCE GEORGE'S

F	20	1	BALTIMORE CITY
F	21	1	BALTIMORE CITY
SUBTOTAL		**10**	
INFLUENZA B			
F	18	1	PRINCE GEORGE'S
SUBTOTAL		**1**	
ADENOVIRUS			
M	20	1	PRINCE GEORGE'S
SUBTOTAL		**1**	
HERPES SIMPLEX UNTYPABLE			
M	41	1	PRINCE GEORGE'S
F	18	1	SOMERSET
M	22	1	SOMERSET
M	32	1	BALTIMORE CITY
M	73	1	BALTIMORE CITY
SUBTOTAL		**5**	
HERPES SIMPLEX I			
F	19	2	ALLEGANY
F	20	1	ALLEGANY
M	21	1	ALLEGANY
F	17	1	ANNE ARUNDEL
F	16	1	BALTIMORE
F	18	1	BALTIMORE
F	19	2	BALTIMORE
F	20	1	BALTIMORE
F	14	1	CALVERT
F	21	1	CARROLL
F	22	1	CARROLL
F	17	1	CECIL
F	19	1	PRINCE GEORGE'S
F	20	2	PRINCE GEORGE'S
F	21	3	PRINCE GEORGE'S
F	25	1	PRINCE GEORGE'S
F	27	1	PRINCE GEORGE'S
F	20	1	WICOMICO
F	24	1	WICOMICO
M		1	WICOMICO
F	15	1	BALTIMORE CITY
F	16	1	BALTIMORE CITY
F	19	1	BALTIMORE CITY
F	22	1	BALTIMORE CITY
M	31	1	BALTIMORE CITY
M	32	1	BALTIMORE CITY
SUBTOTAL		**31**	
HERPES SIMPLEX II			
F	20	1	ALLEGANY
F	31	1	ALLEGANY
M	33	1	ANNE ARUNDEL
F	21	1	BALTIMORE
F	23	1	BALTIMORE
F	26	2	BALTIMORE
M		1	BALTIMORE
M	53	1	CECIL
F	17	1	FREDERICK
F	22	1	HARFORD
F	18	1	HOWARD
F	23	1	MONTGOMERY
F	24	1	MONTGOMERY
F	33	1	MONTGOMERY
M		1	MONTGOMERY
F	22	2	PRINCE GEORGE'S
F	26	1	PRINCE GEORGE'S
F	35	1	PRINCE GEORGE'S
F	44	1	PRINCE GEORGE'S
M	21	1	PRINCE GEORGE'S
M	25	1	PRINCE GEORGE'S
M	28	1	PRINCE GEORGE'S
F	17	1	QUEEN ANNE'S
F	44	1	ST. MARY'S
M	27	1	TALBOT
M	21	1	WASHINGTON
F	17	1	BALTIMORE CITY
F	18	1	BALTIMORE CITY
F	20	1	BALTIMORE CITY
F	25	1	BALTIMORE CITY
F	28	1	BALTIMORE CITY
F	43	1	BALTIMORE CITY
F	44	1	BALTIMORE CITY
F	49	1	BALTIMORE CITY
M		1	BALTIMORE CITY
M	18	1	BALTIMORE CITY
M	20	1	BALTIMORE CITY
M	22	1	BALTIMORE CITY
M	23	1	BALTIMORE CITY
M	25	1	BALTIMORE CITY
M	30	1	BALTIMORE CITY
M	31	1	BALTIMORE CITY
M	37	1	BALTIMORE CITY
M	46	1	BALTIMORE CITY
M	53	1	BALTIMORE CITY
U	41	1	BALTIMORE CITY
SUBTOTAL		**48**	
TOTAL		**96**	

VIRAL HEPATITIS

ORGANISM	# OF SPECIMENS	POSITIVES	JURISDICTION
HEPATITIS A			
	1	0	ALLEGANY
	2	0	ANNE ARUNDEL
	7	0	BALTIMORE
	1	0	CARROLL
	1	0	CECIL
	1	0	CHARLES
	1	0	DORCHESTER
	1	0	HARFORD
	1	0	MONTGOMERY
	1	0	PRINCE GEORGE'S
	1	0	ST. MARY'S
	2	0	WICOMICO
	12	0	BALTIMORE CITY
SUBTOTAL	**32**	**0**	
HEPATITIS B			
	14	0	ALLEGANY
	91	2	ANNE ARUNDEL
	69	0	BALTIMORE
	5	0	CALVERT
	10	0	CAROLINE
	31	1	CARROLL
	100	2	CECIL
	1	0	DORCHESTER
	86	2	FREDERICK
	10	0	GARRETT
	32	2	HARFORD
	51	1	HOWARD
	5	0	KENT
	212	6	MONTGOMERY
	262	5	PRINCE GEORGE'S
	1	0	QUEEN ANNE'S
	5	0	ST. MARY'S

	9	0	SOMERSET
	11	0	TALBOT
	38	1	WASHINGTON
	125	0	WICOMICO
	2	0	WORCESTER
	253	5	BALTIMORE CITY
	12	0	OUT OF STATE
SUBTOTAL	**1,435**	**27**	
HEPATITIS C			
	15	4	ALLEGANY
	112	34	ANNE ARUNDEL
	87	11	BALTIMORE
	4	0	CALVERT
	10	1	CAROLINE
	34	11	CARROLL
	38	3	CECIL
	84	4	FREDERICK
	10	0	GARRETT
	14	2	HARFORD
	22	2	HOWARD
	5	1	KENT
	21	0	MONTGOMERY
	149	0	PRINCE GEORGE'S
	2	1	QUEEN ANNE'S
	7	1	ST. MARY'S
	21	8	SOMERSET
	11	0	TALBOT
	45	18	WASHINGTON
	28	1	WICOMICO
	1	0	WORCESTER
	267	64	BALTIMORE CITY
	8	0	OUT OF STATE
SUBTOTAL	**995**	**166**	
TOTAL	**2,462**	**193**	

RABIES

SOURCE	**#**	**JURISDICTION**
COW	2	FREDERICK
DOG	1	QUEEN ANNE'S
FOX	1	CHARLES
	1	FREDERICK
	1	WORCESTER
RACCOON	1	ALLEGANY
	1	BALTIMORE
	1	CAROLINE
	1	CHARLES
	1	FREDERICK
	1	GARRETT
	1	MONTGOMERY
	1	PRINCE GEORGE'S
	1	SOMERSET
	2	UNKNOWN
SKUNK	1	KENT
TOTAL POSITIVES	**18**	
TOTAL SPECIMENS	**253**	

CHLAMYDOPHILIA (CHLAMYDIA) PSITTACI

REPORTED QUARTERLY
NO REPORT THIS MONTH

NEWBORN & CHILDHOOD SCREENING

STATISTICS FOR FEBRUARY 2007

PRESUMPTIVE POSITIVES	
DISORDERS	**#**
PHENYLKETONURIA	19
MAPLE SYRUP URINE DISEASE	17
HOMOCYSTINURIA	12
TYROSINEMIA	5
ARGININEMIA	1
CITRULLINEMIA	0
GALACTOSEMIA	0
BIOTINIDASE DEFICIENCY	1
HYPOTHYROIDISM	58
HEMOGLOBIN -DISEASE	10
HEMOGLOBIN -BENIGN	253
CONGENITAL ADRENAL HYPERPLASIA (CAH)	57
CYSTIC FIBROSIS	7
FATTY ACID OXIDATIONS	22
ORGANIC ACIDEMIAS	48
ACYLCARNITINE - BORDERLINE	29
ACYLCARNITINE - OTHERS	39

MONTHLY TOTALS	
# OF SPECIMENS SCREENED	10,351
NUMBER OF TESTS	842,434
% OF UNSATISFACTORY SPECIMENS	6.7

YEAR-TO-DATE CONFIRMED CASES	
CONDITIONS	**# CON-FIRMED**
MCAD	1
3MCC	0
SCAD	0
VLCAD	0
GA-I	1
MAPLE SYRUP URINE DISEASE	0
PKU- CLINICALLY SIGNIFICANT VARIANT	0
GALACTOSEMIA- CLASSICAL GALT DEFICIENCY	0
GALACTOSEMIA - VARIANT	0
BIOTINIDASE DEFICIENCY	0
GALACTOSE EPIMERASE DEFICIENCY	0
PARTIAL BIOTINIDASE DEFICIENCY	0
CAH- CLASSICAL SALT WASTING	1
CAH-NON-CLASSICAL	0
HYPOTHYROIDISM - PRIMARY	2
OTHER HYPOTHYROIDISM	3
SICKLE CELL DISEASE -SS	2
SICKLE CELL DISEASE -SC	0
SICKLE CELL DISEASE -S BETA THALASSEMIA	1
CYSTIC FIBROSIS	1

LEAD SCREENING - BLOOD LEAD

CLASS		RANGE ug/dl	TESTS # of
MARYLAND			
	I	<10	156
	IIA	10-14	12
	IIB	15-19	9
	III	20-44	5
	IV	45-69	0
	V	>69	0
TOTAL			**182**
WASHINGTON DC			
	I	<10	0
	IIA	10-14	0
	IIB	15-19	0
	III	20-44	0
	IV	45-69	0
	V	>69	0
TOTAL			**0**

ENVIRONMENTAL CHEMISTRY

SAMPLES	# NON-COMPLIANT	# TESTED
ASBESTOS		
AIR	5	37
BULK	0	0
AIR QUALITY		
$PM_{2.5}$	0	264
PM_{10}	0	0
RADIATION		
AIR/CHARCOAL FILTERS	0	56
MILK	0	3
WIPES	0	176
RAW WATER	0	8
VEGETATION	0	0
OTHER	0	0
DRINKING WATER		
METALS		
COMMUNITY	4	5
NON-COMMUNITY	1	1
PRIVATE WELLS	54	157
PESTICIDES & PCBs		
COMMUNITY	0	44
NON-COMMUNITY	0	8
PRIVATE WELLS	0	0
VOLATILE ORGANIC COMPOUNDS		
COMMUNITY	0	122
NON-COMMUNITY	0	85
PRIVATE WELLS	0	101
RADIATION		
COMMUNITY	7	22
NON-COMMUNITY	0	0
PRIVATE WELLS	0	0
INORGANICS		
COMMUNITY	0	6
NON-COMMUNITY	3	115
PRIVATE WELLS	10	282
FOOD CHEMISTRY		
SUSPECTED TAMPERING	0	0
MICROSCOPIC FILTH	0	0
LABELING	0	0
SURVEILLANCE	0	0
CHEMICAL CONTAMINATION	0	0
TOTAL	**84**	**1,492**

LEAD ENVIRONMENTAL

TEST	#	ELEV	BRL	UNSAT
TOTAL PAINT	**0**	**0**	**0**	**0**
TOTAL SOIL	**1**	**0**	**0**	**0**
DUST FLOOR	324	34	266	0
SILL	527	13	419	6
WELL	259	17	139	0
OTHER	10	1	8	0
TOTAL DUST	**1,120**	**65**	**832**	**6**
GRAND TOTAL	**1,121**	**65**	**832**	**6**

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

CD4 FLOW CYTOMETRY WORKLOAD

REPORTED QUARTERLY
NO REPORT THIS MONTH

VIRAL LOAD SPECIMENS (FEBRUARY 2007)

HIV–1 RNA COPIES/ML

JURISDICTION	$<10^3$	10^3-10^4	10^4-10^5	$>10^5$	TOTALS
ALLEGANY CO	6	0	0	0	**6**
CHEVERLY	25	3	3	1	**32**
CLIFTON T PERKINS	0	0	0	1	**1**
DYER/CLINTON	2	0	1	0	**3**
FREDERICK CO	1	0	2	0	**3**
MONTGOMERY CO	60	5	9	7	**81**
PRINCE GEORGES CO	17	1	1	2	**21**
WASHINGTON CO	1	2	3	0	**6**
WICOMICO CO	1	2	0	1	**4**
SUBTOTALS	**113**	**13**	**19**	**12**	**157**
DEPT. OF CORRECTIONS	81	24	21	9	**135**
TOTALS	**194**	**37**	**40**	**21**	**292**

HIV ANTIBODY SCREENING – BLOOD (FEBRUARY 2007)

SPECIMEN SOURCES	TOTAL	POSITIVE EIA	%	POSITIVE WB	%
HEALTH DEPARTMENTS AND CLINICS	2,065	84	4.07%	74	88.10%
HOSPITALS	119	6	5.04%	6	100.00%
DETENTION CENTERS	465	13	2.80%	11	84.62%
PRIVATE PHYSICIANS	14	0	0.00%	0	0.00%
STUDENT HEALTH CLINICS	284	0	0.00%	0	0.00%
EMPLOYEE HEALTH CLINICS	4	0	0.00%	0	0.00%
AUTOPSIES	274	21	7.66%	13	61.90%
ORGAN/TISSUE DONORS	35	1	2.86%	1	100.00%
TOTAL	**3,260**	**125**	**3.83%**	**105**	**84.00%**

MAILING LABEL

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