CRITICAL LINK

John M. Colmers
Secretary

A Publication of the Maryland Department of Health and Mental Hygiene

The Laboratories Administration—Maryland's State Public Health Laboratory

Legislative Session Update

Prescription Drug Monitoring and Medical Marijuana Testing

During the 2010 General Assembly Session the Department of Health and Mental Hygiene (DHMH) and the Laboratories Administration's Division of Drug Control were deeply involved in working with Maryland's legislators on two bills that could directly impact DHMH.

PDMP

The first is House Bill 918-2010, a bill that, if passed, would have mandated a Prescription Drug Monitoring Program (PDMP).[1]

According to the National Alliance for Model State Drug Laws (NAMSDL), a PDMP is:

"A statewide electronic database which collects designated data on substances dispensed in the state. The PDMP is housed by a specified statewide regulatory, administrative or law enforcement agency. The housing agency distributes data from the database to individuals who are authorized under state law to receive the information for purposes of their profession.[2]"

The purported purpose of a PDMP is to monitor the prescribing and dispensing of drugs deemed to have the most potential for abuse and diversion (e.g., patient doctor shopping). These could include prescription pain killers, such as OxyContin,Vicodin, and Percocet.[3]

In May 2010, researchers reported that hospitalizations for poisoning by prescription opioids, sedatives, and tranquilizers in the U.S. have increased

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Guide to Public Health Laboratory Services is Revised

The Guide to Public Health Laboratory Services is a comprehensive working manual for customers of the Maryland Laboratories Administration. It offers guidance for proper packaging and shipping of specimens or samples to the Laboratories Administration, and what can be expected as far as turn-around time.

As changes in technology have accelerated, this Guide needs to be more frequently updated. For example, in this latest revision, the Mycology Laboratory has been closed and the following tests are no longer being performed;

- Aerobic Actinomycete for ID *Aspergillus* species
- *Blastomyces* culture

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Legislative Session Update

by 65% from 1999 to 2006. This increase was double that observed in hospitalizations for poisoning by other drugs and substances.

As of January 2010, 34 states have operational PDMPs and five others have enacted legislation to establish a PDMP.[1] Most of these states obtained initial funding and some continuing support under the Harold Rogers Prescription Drug Monitoring Program (HRPDMP), a competitive granting program administered by the U.S. Department of Justice. HRPDMP provides three categories of grants: planning, implementation, and enhancement. On its second attempt, DHMH obtained a $50,000 grant to support the planning phase. However, to be eligible for implementation funding, a state must already have a statute or regulation permitting the establishment of a PDMP. House Bill 918-2010 would have provided the necessary statute.

The second source of federal funding is the National All Schedules Prescription Electronic Reporting Act (NASPER) administered by the U.S. Department of Health and Human Services (DHHS). This grant program enables states to create a PDMP database or enhance an existing one. Unfortunately, for federal FY2010, since there is only $2 million of grant funding available in the program for all the states, there will be much greater competition for these funds.

There are differences between the two funding programs. The purpose of the HRPDMP is to enhance the capacity of regulatory and law enforcement agencies, as well as public health officials, to collect and analyze controlled substance prescription data through a centralized database. NASPER's intent is to foster PDMPs that would meet consistent national criteria and have the capacity for the interstate exchange of information.

One of the biggest issues regarding House Bill 918-2010 was a strong concern by the State's physicians that implementation of a PDMP under HRPDMP could unleash an unwarranted mining of electronic data by law enforcement, that finds it easier to look at bonafide prescribing practices rather than conducting investigations to identify doctor shoppers and purveyors of stolen prescription pads.

Other issues raised before the General Assembly include the increase in electronic documentation required of pharmacies and physicians, costs associated with a new regulatory program, and the need for the Department to obtain funding and hire additional regulatory staff. Funding under the HRPDMP is scheduled to be phased out in 2010. Without a refunding of the HRPDMP, the Laboratories Administration calculated that implementation in the first year would come to approximately $1.3 million, and maintenance costs in subsequent years would rise from $700,000 to $820,000.

In addition to concerns about prescribing, costs, and bureaucracy, there is very little evidence that states operating a PDMP have actually reduced the abuse and illicit supply of prescription drugs. Focusing on Schedule II pain relievers and stimulants, in a project sponsored by the United States Department of Justice, Office of Justice Programs, Bureau of Justice Assistance, researchers developed composite measures for these two drug classes and published an evaluation in 2006.[4] They reported that the probability of pain-reliever abuse was actually higher in states that have a PDMP than in states that did not have a PDMP, even though the states with the PDMPs had been effective in reducing the per capita supply of prescription pain relievers. However, paradoxically, their analysis also demonstrated that in the absence of such programs the probability of abuse would be even higher.

Although House Bill 918-2010 failed to be voted out of committee, there remains much interest in a PDMP for Maryland. The bill was marked for further study this summer, and both the Department and Division of Drug Control staff expect to serve as invited participants.

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Medical Marijuana

Over the past two years, medical experts have taken new looks at evidence for the therapeutic use of marijuana.[5,6] During the 2010 General Assembly Session, DHMH and the Laboratories Administration's Division of Drug Control also were involved in a pair of medical marijuana bills (House Bill 712-2010 and its counterpart, Senate Bill 627-2010, both entitled Public Health-Medical Marijuana.)[7,8] These were comprehensive bills that, if passed, would have authorized a program within the State, under the administration of DHMH and the Maryland Department of Agriculture, to establish a State program to legally permit physicians, patients, patient care givers, pharmacies, and marijuana growers to support and participate in providing medical marijuana for lawful use by patients suffering certain debilitating medical conditions. The bills were comprehensive in an attempt to preclude many of the types of abuses that occurred under California's medical marijuana law (e.g., poorly regulated growing, selling, and very relaxed access to the marijuana). One requirement in the Maryland bills was to have growers:

"13-3002, (C)(3) Submit to pharmacological testing of the marijuana to ensure: (I) Consistency of the marijuana cultivated under this subtitle; and (II) That there is no adulteration or contamination of the marijuana..."

On February 1, 2010, the Laboratories Administration undertook a medical marijuana survey of all 50 state public health laboratory directors. Twenty-seven of 34 responding laboratory directors are located in states without a medical marijuana law and are not involved in any aspect related to marijuana, including enforcement. In the seven states that responded as having a medical marijuana law (AK, ME, RI, CA, OR, VT, and MI), no public health laboratory was involved in any way with testing or otherwise supporting medical marijuana.

Although laboratory testing is not mentioned in their marijuana laws, state public health laboratory directors in California and Maine mentioned they had been approached about the possibility of testing for contaminants in marijuana. Marijuana testing in states is limited to identification, and testing is performed only in crime/forensic laboratories to enforce states' criminal statutes.

An Internet search provided only anecdotal reports both on possible contamination of medical marijuana and that medical marijuana grown in the U.S. is a clean product. However, the survey and Internet search failed to identify a single scientific and reliable study or publication on contamination (e.g., by pesticides or heavy metals) of marijuana intended for medical or non-medical use.

This lack of scientific data may be due in large part because the federal government has banned all types of research on marijuana and other Schedule I controlled dangerous substances. Therefore, there does not appear to be a single public state or private commercial laboratory with any reliable experience in testing marijuana for purity, potency, adulteration, or contamination. This dearth of knowledge could change since the American Medical Association has joined the Institute of Medicine, the American College of Physicians, and patient advocates in calling for changes in federal drug enforcement policies to establish evidence-based clinical practices with respect to medical marijuana.[9]

One major problem with these bills in the 2010 session was the difficulty in calculating accurate costs to develop, implement, and maintain such a large program involving growers, sellers, physicians, and regulators. The Laboratories Administration came up with a fiscal impact that approximated $2.7 million a year. While others took exception to this projected expenditure and attempted to reduce it, there is no benchmark against which to compare these development, implementation, and maintenance costs. Given the austere economic environment, there was little incentive to blindly jump into such a new and complex regulatory program.

Still, there continues to be a genuine need on the part of the medical community to legalize marijuana in Maryland so it can be used lawfully to treat a list of debilitating medical conditions. These bills, while they failed

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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 plies 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.

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Legislative Session Update

to be passed in the 2010 General Assembly Session, have been marked for summer study.

This article written by Jack DeBoy.

References

[1] House Bill 918-2010. Prescription Drug Monitoring Program. Introduced into the MD General Assembly February 10, 2010, and assigned to the Health and Government Operations Committee.

[2] U.S. Dept. of Justice, Drug Enforce. Admin., Office of Diversion Control. 2010, Jan. "State Prescription Drug Monitoring Programs." http://www.deadiversion.usdoj.gov/faq/rx_monitor.htm

[3] Coben, H., S.M. Davis, P.M. Furbee, et al. 2010, May. "Hospitalizations for Poisoning by Prescription Opioids, Sedatives, and Tranquilizers." *Am. J. Prev Med.*, 38(5):517-524.

[4] Simeone, R. and L. Holland. 2006, Sep. "An Evaluation of Prescription Drug Monitoring Programs" Simeone Associates, Inc., 220 Lancaster St., Albany, NY 12210. http://www.simeoneassociates.com/simeone3.pdf

[5] Taylor, T. 2008. Position Paper: Supporting research into the therapeutic role of marijuana. American College of Physicians, NY. http://www.illinoiscan.com/articles/American%20College%20of%20Physicians%20&%20Medmarijuana.pdf

[6] Am. Med. Assoc. 2009. Use of cannabis for medicinal purposes, report 3 of the Council on Science and Public Health, Chicago http://americansforsafeaccess.org/downloads/AMA_Report.pdf

[7] House Bill 712-2010. Public Health-Medical Marijuana, Introduced into the MD General Assembly February 4, 2010, and assigned to the Health and Government Operations and the Judiciary Committees.

[8] Senate Bill 627-2010. Public Health-Medical Marijuana, Introduced into the MD General Assembly February 5, 2010, and assigned to the Judicial Proceedings Committee.

[9] Hoffmann, D. and E. Webrer. 2010, Apr. 22. Perspective: Medical Marijuana and the Law. *NEJM*,362(16):1453-1457. http://content.nejm.org/cgi/content/full/362/16/1453

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Guide to Public Health Laboratory Services is Revised

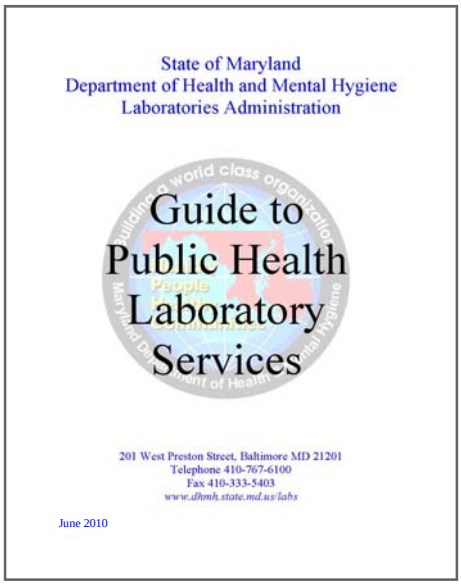
- Branching Gram-positive rod ID
- *Candida* Culture
- *Coccidioides* Culture
- *Cryptococcus* culture
- Fungus Culture
- Fungal Smear
- India Ink on CSF for *Cryptococcus*
- KOH for fungal elements
- Mold for ID
- Yeast for ID

Also, the Syphilis-DFA-TP test will be discontinued July 1, 2010 (Critical Link, April 2010), and childhood lead poisoning testing will end, effective July 1, 2010.

Additionally, we have added the following tests and information:

- Syphilis-RPR Qualitative
- Syphilis-RPR Quantitative
- Rabies Antibody Titer (RFFIT)
- Revised guidance for packaging and shipping.

Other changes and updates will be made as needed. Customers who submit specimens and samples to the Laboratories Administration should consult the Guide frequently on-line for that latest information at http://dhmh.state.md.us/labs/pdf/guide.pdf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Guide to Public Health Laboratory Services

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June 2010

This article written by Georgia Corso.

Laboratory Statistics

Reported from the
Laboratories Administration
during the month of
March 2010

ENTERIC BACTERIOLOGY

GENUS SEROVAR	SEX	AGE	#	JURISDICTION
CAMPYLOBACTER JEJUNI				
	F	0	1	BALTIMORE
	F	6	1	BALTIMORE
	M	51	1	BALTIMORE
	M	37	1	BALTIMORE
	M	31	1	BALTIMORE
	M	21	1	BALTIMORE
	M	0	1	BALTIMORE CITY
	M	37	1	HARFORD
	F	63	1	KENT
	F	49	1	OUT OF STATE
	F	32	1	OUT OF STATE
	M	48	1	OUT OF STATE
	F	39	1	TALBOT
	F	0	1	UNKNOWN
ESCHERICHIA COLI, SEROTYPE O26:H11				
	M	1	1	OUT OF STATE
	F	61	1	OUT OF STATE
	F	27	1	OUT OF STATE
	F	5	1	OUT OF STATE
	F	3	1	OUT OF STATE
	F	2	1	OUT OF STATE
	F	1	1	OUT OF STATE
	M	13	1	OUT OF STATE
SALMONELLA				
	F	0	1	BALTIMORE
	F	90	1	BALTIMORE CITY
	M	0	1	BALTIMORE CITY
	F	5	1	OUT OF STATE

F	2	1	OUT OF STATE
F	5	1	PRINCE GEORGE'S
F	1	1	WICOMICO
SALMONELLA ISANGI			
F	53	1	BALTIMORE CITY
M	0	1	BALTIMORE CITY
SALMONELLA SER. 4,12:I:-			
F	32	1	BALTIMORE
M	1	1	BALTIMORE
F	3	1	FREDERICK
F	3	1	FREDERICK
SALMONELLA SER. 4,5,12:I:-			
M	4	1	OUT OF STATE
SALMONELLA SER. AGONA			
M	3	1	BALTIMORE CITY
SALMONELLA SER. BAILDON			
M	31	1	BALTIMORE
F	35	1	FREDERICK
SALMONELLA SER. BARDO			
F	62	1	OUT OF STATE
SALMONELLA SER. BERTA			
F	48	1	BALTIMORE
SALMONELLA SER. BOVISMORBIFICANS			
M	1	2	BALTIMORE CITY
SALMONELLA SER. BRAENDERUP			
F	33	1	OUT OF STATE
M	2	2	OUT OF STATE
SALMONELLA SER. CHESTER			
U	12	1	BALTIMORE
SALMONELLA SER. ENTERITIDIS			
M	3	1	ANNE ARUNDEL
F	3	1	BALTIMORE
F	49	2	BALTIMORE CITY
F	16	1	BALTIMORE CITY
F	4	1	BALTIMORE CITY
M	0	3	BALTIMORE CITY
M	50	2	BALTIMORE CITY
M	49	2	BALTIMORE CITY
M	49	1	BALTIMORE CITY
M	42	2	BALTIMORE CITY
M	41	1	BALTIMORE CITY
M	4	2	BALTIMORE CITY
M	1	1	BALTIMORE CITY
M	1	1	BALTIMORE CITY
M	1	1	BALTIMORE CITY
U	58	1	CALVERT
M	58	1	CALVERT
F	49	1	OUT OF STATE
F	26	1	OUT OF STATE
F	3	1	OUT OF STATE
M	63	1	OUT OF STATE
M	38	1	OUT OF STATE
F	0	1	UNKNOWN
M	51	1	UNKNOWN
F	5	1	WASHINGTON
M	54	1	WICOMICO
SALMONELLA SER. GRUMPENSIS			
M	43	1	OUT OF STATE
SALMONELLA SER. HADAR			
F	43	1	BALTIMORE CITY
SALMONELLA SER. HEIDELBERG			
M	75	1	CALVERT
SALMONELLA SER. IIIB 50:Z:Z52			
M	31	1	FREDERICK
SALMONELLA SER. IIIB 60:R:E,N,X,Z15			
F	81	1	ALLEGANY
F	78	1	BALTIMORE
SALMONELLA SER. INDIANA			
F	48	1	OUT OF STATE
M	1	1	OUT OF STATE
SALMONELLA SER. IV 48:G,Z51:-			
M	1	1	TALBOT
SALMONELLA SER. JAVIANA			
F	28	1	OUT OF STATE
SALMONELLA SER. KIAMBU			
M	4	1	MONTGOMERY
SALMONELLA SER. MUENCHEN			
M	48	1	OUT OF STATE
SALMONELLA SER. NEWPORT			
U	32	1	PRINCE GEORGE'S
SALMONELLA SER. OSLO			
M	4	1	BALTIMORE CITY
SALMONELLA SER. PARATYPHI A			
F	59	1	OUT OF STATE
SALMONELLA SER. PARATYPHI B VAR L(+) TARTRATE +			
F	0	1	BALTIMORE
U	64	1	MONTGOMERY
M	5	1	MONTGOMERY
SALMONELLA SER. SENFTENBERG			
F	47	1	OUT OF STATE
U	78	1	PRINCE GEORGE'S
SALMONELLA SER. THOMPSON			
M	48	1	BALTIMORE
SALMONELLA SER. TYPHIMURIUM			
M	45	1	BALTIMORE CITY
F	0	1	MONTGOMERY
F	1	1	MONTGOMERY
U	54	1	OUT OF STATE
F	72	1	OUT OF STATE
M	4	2	OUT OF STATE
F	1	1	OUT OF STATE
SHIGELLA FLEXNERI			
F	6	1	BALTIMORE CITY
M	20	1	BALTIMORE CITY
SHIGELLA SONNEI			
F	2	1	MONTGOMERY
F	53	1	OUT OF STATE
M	50	1	WASHINGTON
TOTAL	**114**		

ISOLATES - REFERENCE

GENUS SPECIES SOURCE	#	JURISDICTION
ENTEROCOCCUS FAECIUM		
BLOOD	1	PRINCE GEORGE'S
KLEBSIELLA PNEUMONIAE		
SPUTUM	1	BALTIMORE CITY
URINE	1	CHARLES
TOTAL	**3**	

ISOLATES - MISCELLANEOUS

GENUS SPECIES SOURCE	#	JURISDICTION
CLOSTRIDIUM SEPTICUM		
ABSCESS	1	BALTIMORE CITY
CORYNEBACTERIUM AFERMENTANS		
BLOOD	1	BALTIMORE CITY
ENTEROBACTER CLOACAE		
BLOOD	1	BALTIMORE CITY
ENTEROCOCCUS FAECALIS		
BLOOD	1	BALTIMORE CITY
WOUND	1	PRINCE GEORGE'S
ESCHERICHIA COLI		
BLOOD	3	BALTIMORE CITY
CSF	1	BALTIMORE CITY
LYMPH	1	BALTIMORE CITY
VAGINAL	2	MONTGOMERY
GARDNERELLA VAGINALIS		
VAGINAL	5	PRINCE GEORGE'S
LACTOBACILLUS SPECIES		
BLOOD	1	BALTIMORE CITY
PANTOEA AGGLOMERANS		
WOUND	1	PRINCE GEORGE'S
STAPHYLOCOCCUS AUREUS		
BLOOD	1	BALTIMORE CITY
SKIN	1	BALTIMORE CITY
WOUND	4	BALTIMORE CITY
LABIA	1	CARROLL
NASAL	4	CARROLL
WOUND	1	CARROLL
VAGINAL	1	PRINCE GEORGE'S
SPUTUM	1	WASHINGTON
OTHER	1	WICOMICO
STAPHYLOCOCCUS CAPITIS		
BLOOD	1	BALTIMORE CITY
STAPHYLOCOCCUS, COAGULASE NEGATIVE		
BLOOD	3	BALTIMORE CITY
STREPTOCOCCUS BETA HEMOLYTIC GROUP B		
VAGINAL	4	ANNE ARUNDEL
BLOOD	2	BALTIMORE CITY
VAGINAL	1	MONTGOMERY
VAGINAL	8	PRINCE GEORGE'S
VAGINAL	18	PRINCE GEORGE'S
WOUND	1	TALBOT
STREPTOCOCCUS BETA HEMOLYTIC GROUP A		
THROAT	1	ALLEGANY
STREPTOCOCCUS BETA HEMOLYTIC NON-GROUP A		
THROAT	19	ALLEGANY
STREPTOCOCCUS UBERIS		
BLOOD	1	BALTIMORE CITY
TOTAL	**93**	

SEXUALLY TRANSMITTED DISEASES

GENUS SPECIES SEX	#	JURISDICTION
SYPHILIS SEROLOGY		
M	1	ANNE ARUNDEL
F	3	BALTIMORE
M	7	BALTIMORE
F	23	BALTIMORE CITY
M	29	BALTIMORE CITY
F	1	CALVERT
F	1	CECIL
F	1	DORCHESTER
U	1	HARFORD
F	3	MONTGOMERY
M	10	MONTGOMERY
F	5	PRINCE GEORGE'S
M	31	PRINCE GEORGE'S
U	1	PRINCE GEORGE'S

F	2	WICOMICO
M	5	WICOMICO

TOTAL 124

CHLAMYDIA TRACHOMATIS

F	4	ALLEGANY
M	6	ALLEGANY
F	25	ANNE ARUNDEL
M	11	ANNE ARUNDEL
F	22	BALTIMORE
M	11	BALTIMORE
F	11	BALTIMORE CITY
M	17	BALTIMORE CITY
F	3	CALVERT
M	1	CALVERT
F	1	CAROLINE
F	5	CARROLL
M	3	CARROLL
F	1	CECIL
F	15	CHARLES
M	7	CHARLES
M	5	DORCHESTER
F	4	FREDERICK
F	2	GARRETT
F	5	HARFORD
M	5	HARFORD
F	2	HOWARD
M	4	HOWARD
F	3	KENT
M	2	KENT
F	19	MONTGOMERY
M	2	MONTGOMERY
F	67	PRINCE GEORGE'S
M	67	PRINCE GEORGE'S
U	1	PRINCE GEORGE'S
F	3	QUEEN ANNE'S
F	2	SAINT MARY'S
F	8	SOMERSET
M	11	SOMERSET
U	1	SOMERSET
F	2	TALBOT
M	2	TALBOT
F	3	WASHINGTON
M	5	WASHINGTON
F	14	WICOMICO
M	8	WICOMICO
U	1	WICOMICO
F	5	WORCESTER
M	5	WORCESTER

TOTAL 401

NEISSERIA GONORRHOEAE

F	1	ALLEGANY
M	1	ALLEGANY
F	1	ANNE ARUNDEL
M	1	BALTIMORE
U	1	BALTIMORE
M	1	BALTIMORE CITY
F	1	CHARLES
M	5	CHARLES
M	4	DORCHESTER
F	1	MONTGOMERY
M	8	MONTGOMERY
F	10	PRINCE GEORGE'S
M	21	PRINCE GEORGE'S
F	5	WICOMICO
M	4	WICOMICO
M	2	WORCESTER

TOTAL 67

PENICILLIN RESISTANT GONORRHEA

REPORTED QUARTERLY 1-01-10 TO 3-31-10

SEX	AGE	#	JURISDICTION
M	21	1	PRINCE GEORGE'S
M	21	1	HARFORD

TOTAL 2

MYCOBACTERIOLOGY

ISOLATE

SEX	AGE	#	JURISDICTION
AEROBIC ACTINOMYCETE			
M	65	3	BALTIMORE
MYCOBACTERIUM AFRICANUM			
M	51	1	PRINCE GEORGE'S
MYCOBACTERIUM AVIUM COMPLEX			
F	69	2	ANNE ARUNDEL
F	79	1	BALTIMORE
M	51	2	BALTIMORE
M	74	3	BALTIMORE
M	50	1	BALTIMORE CITY
F	71	1	CARROLL
F	66	1	HARFORD
F	87	1	MONTGOMERY
F	88	1	MONTGOMERY
M	29	1	MONTGOMERY
F	68	1	OUT OF STATE
M	38	1	TALBOT
M	50	1	TALBOT
F	0	1	UNKNOWN
F	73	1	WASHINGTON
M	34	1	WASHINGTON
F	43	1	WICOMICO
M	57	1	WICOMICO
M	73	1	WICOMICO
MYCOBACTERIUM BOVIS			
M	56	1	OUT OF STATE
MYCOBACTERIUM FORTUITUM			
F	60	1	MONTGOMERY
F	60	1	WICOMICO
M	75	1	WICOMICO
MYCOBACTERIUM FORTUITUM COMPLEX			
U	80	1	ANNE ARUNDEL
M	64	1	ANNE ARUNDEL
F	65	1	BALTIMORE CITY
M	77	1	BALTIMORE CITY
F	19	1	MONTGOMERY
F	79	3	MONTGOMERY
F	80	1	MONTGOMERY
F	50	2	SOMERSET
M	0	1	UNKNOWN
F	62	2	WASHINGTON
M	54	1	WICOMICO
MYCOBACTERIUM GORDONAE			
F	23	1	BALTIMORE CITY
F	49	1	BALTIMORE CITY
F	56	1	BALTIMORE CITY
F	69	1	CALVERT
F	80	1	CARROLL
F	86	1	FREDERICK
F	23	1	MONTGOMERY
F	71	1	MONTGOMERY
F	75	1	MONTGOMERY
U	0	1	UNKNOWN
M	29	1	WICOMICO
M	46	1	WICOMICO
M	48	1	WICOMICO
M	68	1	WICOMICO
MYCOBACTERIUM KANSASII			
M	58	1	BALTIMORE
M	54	1	BALTIMORE CITY
M	66	1	WICOMICO
MYCOBACTERIUM MARINUM			
M	51	1	FREDERICK
MYCOBACTERIUM TUBERCULOSIS			
M	48	1	ANNE ARUNDEL
F	81	1	BALTIMORE
M	34	1	BALTIMORE
M	68	1	BALTIMORE
M	73	1	BALTIMORE
M	33	1	BALTIMORE CITY
M	34	1	BALTIMORE CITY
M	49	1	BALTIMORE CITY
M	41	1	HARFORD
F	72	1	MONTGOMERY
M	31	1	MONTGOMERY
M	33	1	MONTGOMERY
M	70	1	MONTGOMERY
F	32	1	OUT OF STATE
F	52	1	OUT OF STATE
M	53	1	OUT OF STATE
M	64	1	TALBOT
U	0	1	UNKNOWN
MYCOBACTERIUM TUBERCULOSIS COMPLEX			
M	80	1	BALTIMORE
M	46	1	BALTIMORE CITY
M	49	1	BALTIMORE CITY
F	51	1	HARFORD
F	19	2	MONTGOMERY
F	38	4	MONTGOMERY
F	72	1	MONTGOMERY
F	79	3	MONTGOMERY
M	15	2	MONTGOMERY
M	29	4	MONTGOMERY
M	31	7	MONTGOMERY
M	45	2	MONTGOMERY
M	52	2	MONTGOMERY
F	57	1	OUT OF STATE
M	0	1	OUT OF STATE
M	25	2	OUT OF STATE
M	57	2	OUT OF STATE
F	47	5	PRINCE GEORGE'S
M	29	1	PRINCE GEORGE'S
M	80	1	WICOMICO
MYCOBACTERIUM XENOPI			
F	0	1	UNKNOWN
NON-PHOTOCHROMOGENIC MYCOBACTERIA			
F	75	2	ALLEGANY
F	86	1	ALLEGANY
F	47	1	WASHINGTON
M	65	1	WASHINGTON
RAPIDLY GROWING MYCOBACTERIA			
F	18	1	ALLEGANY
F	34	1	ALLEGANY
F	43	3	ALLEGANY
F	77	1	MONTGOMERY
M	69	1	MONTGOMERY

TOTAL 139

MYCOBACTERIUM SUSCEPTIBILITY RESULTS

20 ISOLATES IDENTIFIED
1 DRUG RESISTANT STRAINS FOUND

#	JURISDICTION	DRUG(S)
1	MONTGOMERY	STREPTOMYCIN

[A] TWO ISOLATES FROM THE SAME PATIENT
[B] PROBABLE FOR M. BOVIS
[C] MEETS CASE DEFINITION OF MULTI-DRUG TUBERCULOSIS (MDRTB)

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

PARASITOLOGY

GENUS/SPECIES	#	JURISDICTION
BLASTOCYSTIS HOMINIS		
	1	PRINCE GEORGE'S
	1	MONTGOMERY
	1	PRINCE GEORGE'S
	2	MONTGOMERY
	1	BALTIMORE CITY
	1	HARFORD
	1	HOWARD
	5	PRINCE GEORGE'S
	1	MONTGOMERY
	2	FREDERICK
	1	HOWARD
	1	MONTGOMERY
	1	BALTIMORE CITY
	1	HOWARD
DIENTAMOEBA FRAGILIS		
	4	PRINCE GEORGE'S
ENDOLIMAX NANA		
	1	MONTGOMERY
	2	BALTIMORE CITY
	1	MONTGOMERY
	2	FREDERICK
	2	PRINCE GEORGE'S
	2	BALTIMORE CITY
	1	HOWARD
ENTAMOEBA COLI		
	2	HOWARD
	1	MONTGOMERY
	2	PRINCE GEORGE'S
	1	MONTGOMERY
	1	HOWARD
	1	HARFORD
	1	MONTGOMERY
ENTEROBIUS VERMICULARIS		
	1	SAINT MARY'S
	1	PRINCE GEORGE'S
GIARDIA LAMBLIA		
	1	BALTIMORE CITY
	1	FREDERICK
HOOKWORM		
	3	MONTGOMERY
IODAMOEBA BÜTSCHLII		
	1	HOWARD
	1	MONTGOMERY
TRICHURIS TRICHIURA		
	3	FREDERICK
	3	HOWARD
	1	HARFORD
	1	HARFORD
TOTAL	**61**	

FOOD PROTECTION

	TOTALS
FOOD	
NUMBER OF SAMPLES	41
NOTABLE PATHOGENS:	
CAMPYLOBACTER SP.	1
CLOSTRIDIUM DIFFICILE	0
ENTEROCOCCUS	39
E. COLI	19
LISTERIA SP.	0
MRSA	20
SALMONELLA SP.	4
VRE	16
CRABMEAT	
NUMBER OF SAMPLES	0
EXCEEDING STANDARDS[1]	0
NOTABLE PATHOGENS:	
LISTERIA INNOCUA	0
SHELLFISH	
NUMBER OF SAMPLES	0
EXCEEDING STANDARDS[2]	0
TOTAL STANDARDS EXCEEDED	16
SHELLFISH GROWING WATERS	
NUMBER OF SAMPLES	72
OTHER	
CLOSTRIDIUM BOTULINUM	0
TOTAL NUMBER OF SAMPLES	**123**

STANDARDS

[1]CRABMEAT FRESH
ESCHERICHIA COLI AT < 36 MPN/100 GRAMS
STANDARD PLATE COUNT AT < 100,000 PER GRAM

[2]SHELLFISH
FECAL COLIFORMS AT < 230 MPN/100 GRAMS
STANDARD PLATE COUNT AT < 500,000 PER GRAM

WATER MICROBIOLOGY

	# TESTED	# NON-COMPLIANT
COMMUNITY	8	0
NON-COMMUNITY	364	46
TOTAL	**372**	**46**

VIRUS ISOLATION

ISOLATE SEX	AGE	#	JURISDICTION
ADENOVIRUS			
U	1	1	ANNE ARUNDEL
M	1	1	ANNE ARUNDEL
U	39	1	CALVERT
HERPES SIMPLEX VIRUS TYPE 1			
M	44	1	PRINCE GEORGE'S
F	20	1	WICOMICO
U	24	1	BALTIMORE CITY
U	19	1	BALTIMORE CITY
F	20	1	BALTIMORE CITY
PARAINFLUENZA VIRUS 2			
M	20	1	ALLEGANY
F	0	1	BALTIMORE CITY
RESPIRATORY SYNCYTIAL VIRUS			
M	0	1	ANNE ARUNDEL
F	1	1	ANNE ARUNDEL
M	1	1	ANNE ARUNDEL
U	1	1	ANNE ARUNDEL
F	52	1	PRINCE GEORGE'S
F	20	1	WICOMICO
F	1	1	BALTIMORE CITY
F	1	1	BALTIMORE CITY
M	0	1	BALTIMORE CITY
TOTAL	**19**		

VIRAL POLYMERASE CHAIN REACTION (PCR)

ISOLATE SEX	AGE	#	JURISDICTION
HERPES SIMPLEX VIRUS TYPE 1			
F	25	1	ANNE ARUNDEL
F	23	1	BALTIMORE
F	29	2	BALTIMORE
F	15	1	BALTIMORE CITY
F	18	1	BALTIMORE CITY
F	22	1	BALTIMORE CITY
M	20	1	BALTIMORE CITY
M	41	1	BALTIMORE CITY
F	17	1	CHARLES
F	19	1	MONTGOMERY
M	22	1	MONTGOMERY
F	18	1	PRINCE GEORGE'S
F	19	1	PRINCE GEORGE'S
F	21	1	PRINCE GEORGE'S
M	28	1	PRINCE GEORGE'S
M	55	1	PRINCE GEORGE'S
F	26	1	TALBOT
F	18	1	WASHINGTON

HERPES SIMPLEX VIRUS TYPE 2

F	23	2	ANNE ARUNDEL
F	23	1	BALTIMORE
U	18	1	BALTIMORE CITY
U	19	1	BALTIMORE CITY
U	23	2	BALTIMORE CITY
U	25	1	BALTIMORE CITY
U	44	1	BALTIMORE CITY
U	60	1	BALTIMORE CITY
F	0	1	BALTIMORE CITY
F	18	1	BALTIMORE CITY
F	19	3	BALTIMORE CITY
F	20	1	BALTIMORE CITY
F	21	2	BALTIMORE CITY
F	22	3	BALTIMORE CITY
F	23	1	BALTIMORE CITY
F	32	1	BALTIMORE CITY
F	42	1	BALTIMORE CITY
F	44	1	BALTIMORE CITY
M	0	1	BALTIMORE CITY
M	20	1	BALTIMORE CITY
M	21	1	BALTIMORE CITY
M	23	1	BALTIMORE CITY
M	24	1	BALTIMORE CITY
M	26	1	BALTIMORE CITY
M	28	2	BALTIMORE CITY
M	30	1	BALTIMORE CITY
M	35	1	BALTIMORE CITY
M	37	1	BALTIMORE CITY
M	40	1	BALTIMORE CITY
M	44	1	BALTIMORE CITY
M	51	1	BALTIMORE CITY
M	61	1	BALTIMORE CITY
F	25	1	CALVERT
F	23	1	CECIL
F	20	1	CHARLES
F	25	1	CHARLES
F	29	1	CHARLES
F	20	1	MONTGOMERY
F	26	1	MONTGOMERY
F	35	1	MONTGOMERY
M	24	1	MONTGOMERY
M	28	1	MONTGOMERY
M	44	1	MONTGOMERY
F	19	1	PRINCE GEORGE'S
F	20	1	PRINCE GEORGE'S
F	26	1	PRINCE GEORGE'S
F	29	1	PRINCE GEORGE'S
M	26	1	PRINCE GEORGE'S
M	38	1	PRINCE GEORGE'S
M	39	1	PRINCE GEORGE'S
F	20	1	TALBOT

INFLUENZA A(H1/N1) NOVEL A

F	0	1	ALLEGANY
F	12	2	ALLEGANY
M	1	1	ALLEGANY
F	2	1	BALTIMORE
F	23	1	BALTIMORE
U	78	1	BALTIMORE CITY
F	53	1	BALTIMORE CITY
M	19	1	BALTIMORE CITY
M	56	1	BALTIMORE CITY
F	22	1	PRINCE GEORGE'S
M	42	1	TALBOT
F	22	1	WICOMICO

TOTAL 91

VIRAL HEPATITIS

ORGANISM	# SPECIMENS	# POSITIVES	JURISDICTION
HEPATITIS A			
	1	0	PRINCE GEORGE'S
SUBTOTAL	**1**	**0**	
HEPATITIS B			
	77	2	ALLEGANY
	226	5	ANNE ARUNDEL
	56	0	BALTIMORE
	482	5	BALTIMORE CITY
	5	0	CALVERT
	17	0	CARROLL
	152	0	CECIL
	12	2	CHARLES
	39	0	FREDERICK
	16	0	GARRETT
	64	0	HARFORD
	28	2	HOWARD
	401	5	MONTGOMERY
	368	7	PRINCE GEORGE'S
	1	0	QUEEN ANNE'S
	1	0	SAINT MARY'S
	29	0	TALBOT
	37	0	WASHINGTON
	90	1	WICOMICO
	2	0	WORCESTER
SUBTOTAL	**2,103**	**29**	
HEPATITIS C			
	71	13	ALLEGANY
	266	43	ANNE ARUNDEL
	70	3	BALTIMORE
	302	58	BALTIMORE CITY
	4	0	CALVERT
	22	4	CARROLL
	79	9	CECIL
	19	1	CHARLES
	38	2	FREDERICK
	16	0	GARRETT
	55	0	HARFORD
	15	0	HOWARD
	29	1	MONTGOMERY
	193	12	PRINCE GEORGE'S
	2	0	QUEEN ANNE'S
	1	0	SAINT MARY'S
	3	1	SOMERSET
	29	0	TALBOT
	16	1	WASHINGTON
	17	1	WICOMICO
	2	0	WORCESTER
SUBTOTAL	**1,249**	**149**	
TOTALS	**3,353**	**178**	

RABIES

SOURCE	#	JURISDICTION
CAT	1	WORCESTER
FOX	2	FREDERICK
	1	PRINCE GEORGE'S
RACCOON	2	ANNE ARUNDEL
	4	BALTIMORE
	3	BALTIMORE CITY
	1	CAROLINE
	2	CARROLL
	4	CHARLES
	2	FREDERICK
	5	MONTGOMERY
	1	QUEEN ANNE'S
	1	SAINT MARY'S
	1	SOMERSET
	3	TALBOT
	1	WICOMICO
	6	WORCESTER
SKUNK	1	CHARLES
	1	PRINCE GEORGE'S
	2	ST MARY'S
TOTAL POSITIVES	**44**	
TOTAL SPECIMENS	**328**	

CHLAMYDIOPHILIA PSITTACI

(CHLAMYDIA) REPORTED QUARTERLY

10-1-09 TO 12-31-09 NONE REPORTED

VIRAL DISEASE ASSESSMENT - HIV

LYMPHOCYTE PHENOTYPING
(METHOD - FLOW CYTOMETRY)

DATES Quarterly comparison 2009-2010	% CD4 LYMPHOCYTES <14%	14%-28%	≥29%	TOTAL
1/01/10 - 3/31/10	152	401	281	834
1/01/09 - 3/31/09	161	460	301	922

BLOOD LEAD

MARYLAND

I	<10	151
IIA	10-14	3
IIB	15-19	2
III	20-44	10
IV	45-69	0
V	>69	0
TOTAL		**166**

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**

NEWBORN & CHILDHOOD SCREENING

PRESUMPTIVE POSITIVES

DISORDERS	#
PHENYLKETONURIA (PKU)	4
MAPLE SYRUP URINE DISEASE (MSUD)	1
HOMOCYSTINURIA	13
TYROSINEMIA	11
ARGININEMIA	0
CITRULLINEMIA	0
GALACTOSEMIA	2
BIOTINIDASE DEFICIENCY	3
HYPOTHYROIDISM	82
HEMOGLOBIN -DISEASE	24
HEMOGLOBIN -BENIGN	528
CONGENITAL ADRENAL HYPERPLASIA (CAH)	38
CYSTIC FIBROSIS	0
FATTY ACID OXIDATIONS	6
ORGANIC ACIDEMIAS	18
ACYLCARNITINE - BORDERLINE	29
ACYLCARNITINE - OTHERS	0

MONTHLY TOTALS

# OF SPECIMENS SCREENED	12,987
NUMBER OF TESTS	827,596
% UNSATISFACTORY SPECIMENS	1.9

2010 YEAR-TO-DATE CONFIRMED CASES

CONDITIONS CONFIRMED	#
MCAD	1
SCAD	3
3-METHYLCROTONYL-COA CARBOXYLASE DEFICIENCY (3-MCC)	2
GALACTOSE EPIMERASE DEFICIENCY	1
GALACTOSEMIA - VARIANT -DG	2
GALACTOSEMIA - UNKNOWN VARIANT	1
CONGENITAL ADRENAL HYPERPLASIA-UNCLASSIFIED	1
HYPOTHYROIDISM - PRIMARY	6
OTHER HYPOTHYROIDISM	1
TBG DEFICIENCY	1
SICKLE CELL DISEASE -SS	15
SICKLE CELL DISEASE -SC	5
SICKLE CELL DISEASE -S BETA THALASSEMIA	1
SICKLE CELL DISEASE-SV	1
CYSTIC FIBROSIS	2
CFTR-RELATED METABOLIC SYNDROME (CRMS)	1
TRANSIENT TYRODINEMIA	2

ENVIRONMENTAL CHEMISTRY

SAMPLE TYPES	# NON-COMPLIANT	# TESTED
ASBESTOS		
AIR	0	0
BULK	5	6
AIR QUALITY		
$PM_{2.5}$	0	521
RADIATION		
AIR/CHARCOAL FILTERS	0	32
MILK	0	3
WIPES	0	149
RAW WATER	0	6
VEGETATION	0	0
OTHER	0	17
DRINKING WATER		
METALS		
COMMUNITY	16	21
NON-COMMUNITY	9	17
PRIVATE WELLS	33	146
PESTICIDES & PCBs		
COMMUNITY	0	40
NON-COMMUNITY	0	41
PRIVATE WELLS	0	10
VOLATILE ORGANIC COMPOUNDS		
COMMUNITY	2	188
NON-COMMUNITY	0	149
PRIVATE WELLS	6	96
RADIATION		
COMMUNITY	2	9
NON-COMMUNITY	0	0
PRIVATE WELLS	5	25
INORGANICS		
COMMUNITY	3	59
NON-COMMUNITY	3	174
PRIVATE WELLS	10	147
FOOD CHEMISTRY		
SUSPECTED TAMPERING	0	0
MICROSCOPIC FILTH	0	0
LABELING	0	0
SURVEILLANCE	0	0
CHEMICAL CONTAMINATION	0	0
TOTAL	**94**	**1,856**

VIRAL LOAD SPECIMENS

HIV-1 RNA COPIES/ML	$<10^3$	10^3—10^4	10^4—10^5	$>10^5$	**TOTALS**
ALLEGANY	14	2	0	0	**16**
ANNE ARUNDEL	1	0	0	0	**1**
MONTGOMERY	103	9	8	1	**121**
PRINCE GEORGE'S	105	16	13	5	**139**
WASHINGTON	6	2	1	0	**9**
WICOMICO	2	1	2	1	**6**
SUBTOTALS	231	30	24	7	**292**
DEPT. OF CORRECTIONS	35	6	8	0	**49**
TOTALS	**266**	**36**	**32**	**7**	**341**

HIV ANTIBODY SCREENING

SUBMITTER	TOTAL SPECIMENS	# EIA POSITIVE	% EIA POSITIVE	# WB POSITIVE	% WB POSITIVE
CORRECTIONAL INSTITUTIONS	228	4	1.75%	4	100.00%
FAMILY PLANNING (NON-GOVERNMENT)	190	0	0.00%	0	0.00%
HEALTH CENTERS (NON-GOVERNMENT)	458	43	9.39%	41	95.35%
HLTH DEPT, NON-STD, FAMILY PLAN	503	0	0.00%	0	0.00%
HLTH DEPT, NON-STD, OB/GYN	101	1	0.99%	0	0.00%
HLTH DEPT, NON-STD, OTHER	692	70	10.12%	67	95.71%
HLTH DEPT, STD CLINICS	1,140	14	1.23%	13	92.86%
HOSPITAL, OTHER	141	12	8.51%	9	75.00%
HOSPITAL, PUBLIC	39	2	5.13%	2	100.00%
JUVENILE SERVICES	92	0	0.00%	0	0.00%
LABORATORIES (NON-HOSPITAL)	395	10	2.53%	6	60.00%
PEDIATRIC - CHILD HEALTH	5	0	0.00%	0	0.00%
PRIVATE PHYSICIANS	4	0	0.00%	0	0.00%
PRIVATE STUDENT HEALTH CENTERS	32	0	0.00%	0	0.00%
PUBLIC STUDENT HEALTH CENTERS	251	2	0.80%	0	0.00%
TOTALS	**4,271**	**158**	**3.70%**	**142**	**89.87%**

MAILING LABEL

Critical Link
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