

# CRITICAL LINK



A Publication of the  
Maryland Department of  
Health and Mental Hygiene

The Laboratories Administration—Maryland's State Public Health Laboratory

## Critical Link Going Paperless!

In order to save the cost of paper and delivery, and protect the environment, we are asking our readership to use our email system to receive the *Critical Link* electronically. Please send an email to [criticallink@dhhm.state.md.us](mailto:criticallink@dhhm.state.md.us) and we will put you on the monthly email list.

You may also access it at  
<http://www.dhhm.state.md.us/labs/html/critical-link.html>

However, if you do not have computer access and wish to continue receiving the *Critical Link* via hard copy/snail mail delivery, please send us a reply and update your address or indicate that no change is needed. Our mailing address is:

*Critical Link*  
Laboratories Administration - DHMH  
201 West Preston Street  
Baltimore MD 21201

If we do not receive a response from you, we will be discontinuing your hard copy subscription.

Thank you very much for assisting us and for your interest in the *Critical Link*.

## Norovirus Outbreak at Wedding Party

### Rapid Molecular Testing Quickly Identifies Uninvited Pathogen

In mid-November, the Florida Poison Information Center was informed that 18 of 85 guests attending a wedding in the Jacksonville area had developed acute gastroenteritis. The attendees were residents of 16 states and the District of Columbia. Three of the ill guests were residents of Maryland.

The Montgomery County Health Department actively participated in this outbreak investigation. Stool specimens were collected from the three ill Maryland residents and submitted to the Laboratories Administration. The Laboratories Administration's Molecular

*(Continued on page 2)*

## Newborn Screening Welcomes Follow-Up Unit

### Operational Reorganization Moves Unit to Laboratory Tower

On January 1, 2009, the Follow-Up Unit of the State's Newborn Screening Program officially joined the Laboratories Administration. The duties of the Follow-Up Unit include calling out abnormal newborn screening results to clinicians and/or parents at anytime, seven days and nights a week. This often involves first tracking down the pediatrician or parent and then informing him or her in some detail about one or more of over 50 potential hereditary

*(Continued on page 3)*

January 2009  
Volume 13, Number 1

# CRITICAL LINK

## PRODUCTION MANAGER

Georgia Corso

## EDITORIAL BOARD

Jack DeBoy, Dr. P. H.  
Prince Kassim, Ph.D.  
Fizza Majid, Ph.D.  
Robert Myers, Ph.D.  
Jafar Razeq, Ph.D.  
Jim Svrjcek, B.A.  
Michael Wajda, M.S., J.D.  
Chengru Zhu, Ph.D.

## LABORATORIES ADMINISTRATION

### Director

Jack DeBoy, Dr.P.H.

### Deputy Director for Scientific Programs

Robert Myers, Ph.D.

### Deputy Director for Administrative and Regulatory Programs

Michael Wajda, M.S., J.D.

## TECHNICAL QUESTIONS

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

The Critical Link is published monthly by the staff of the Laboratories Administration  
Department of Health & Mental Hygiene  
201 W. Preston Street  
Baltimore, Maryland 21201  
(Phone 410-767-6909)

*(Continued from page 1)*  
*Wedding Party Norovirus Outbreak*

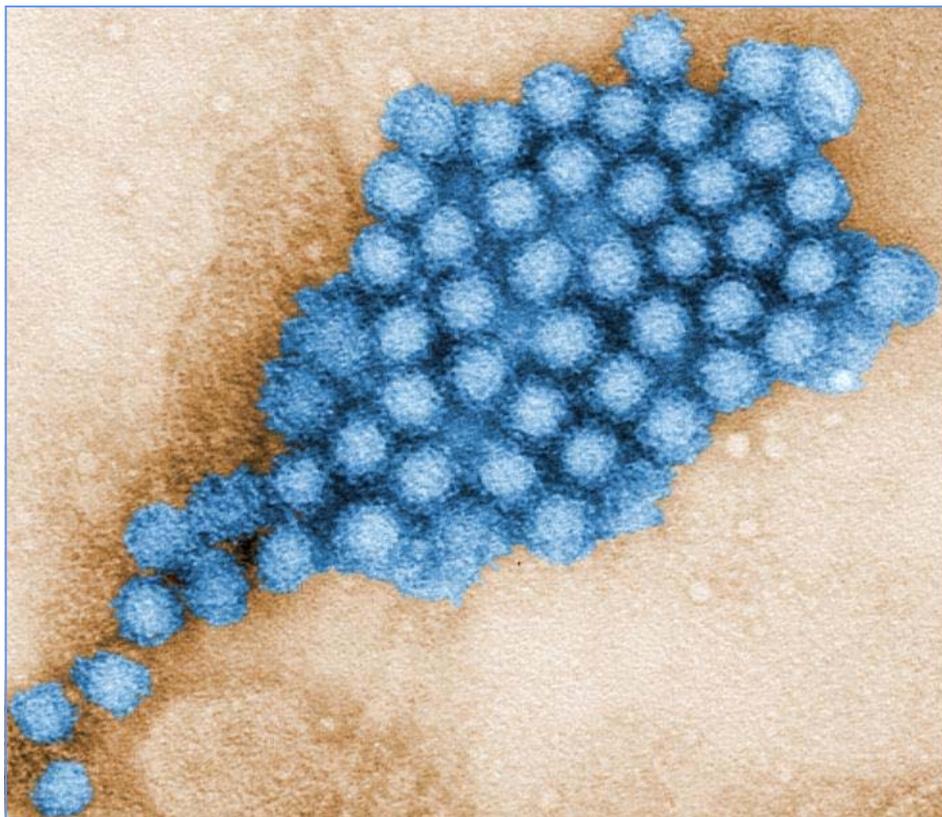
Biology Division tested stool specimens from these three residents for the presence of noroviruses (NV's), using a real-time reverse transcriptase polymerase chain reaction (RT/PCR) procedure that detects viral RNA sequences. All three of the stools tested were found to contain NV RNA and belong to Genogroup II by differential probe binding.

The Division also confirmed the PCR reactions by sequencing the purified region "B" PCR products from two representative positive specimens. These sequences were found to be identical and consistent within the classification of the NV Genogroup II. Interestingly, this sequence was an identical match to a NV sequence associated with a previous 2008 NV outbreak in Montgomery County.

Our laboratory also sequenced an additional NV gene sequence (Region "C") from the two positive specimens. These sequences also were identical and an electronic submission to and query of the European Union's FBVE Network Quick-type NV database for genotyping indicated the region "C" sequence was genotyped as a Genotype II cluster 4, most closely related to a prototype norovirus known as "CII.4 2006."

This outbreak is an excellent example of how both inter- and intrastate communications, coupled with rapid molecular testing, can quickly identify an agent responsible for an outbreak involving residents from many states. This rapid identification was important in reducing outbreak-associated investigatory and laboratory costs, and is another example of the benefits of federal spending over the past eight years on laboratory emergency preparedness.

This article written by Dr. Robert Myers and Dr. Jack DeBoy.



**This transmission electron micrograph (TEM) reveals norovirus virions, or virus particles.**  
Source: Centers for Disease Control, Public Health Image Library



From left to right, Carolyn Dinsmore, Genetic Counselor, and Johnna Watson, Nursing Coordinator.  
Photo: Georgia Corso

Medicine. Dr. Susan Panny, Director of the OGCSHCN, who supervised the Follow-Up Unit for many years, will continue to provide medical support until July 15, 2009, when we expect to have the Clinical Geneticist on board.

In addition to working with the Newborn Screening Laboratories' scientists, the Follow-Up Unit's staff works closely with other geneticists, genetic counselors, scientists, and academics both to facilitate follow-up testing and treatment, and to participate in special projects and investigations that expand our knowledge of hereditary disorders.

Although the Follow-Up Unit's staff is on call 24/7, the office is officially open from 9:30 a.m. to 6:00 p.m. Monday through Friday. The Unit staff can be reached by calling 410-767-6736.

This article was written by Dr. Jack DeBoy.

*(Continued from page 1)*  
*Newborn Screening Welcomes  
Follow-Up Unit*

disorders. The need for follow-up testing is discussed, as well as how the Unit can help obtain confirmatory testing and refer the family to the appropriate treatment center if an infant's abnormal screening results are confirmed. As part of an operational reorganization associated with House Bill 216-2008, the Follow-Up Unit, previously located within the Family Health Administration's Office of Genetics and Children with Special Health Care Needs (OGCSHCN), moved into the laboratory tower. This bill was passed last year by the Maryland General Assembly to establish a fully coordinated State-wide system for screening all newborn infants

(see *Critical Link*, June 2008, Vol. 12, No. 6). Placing the Newborn Screening Follow-Up Unit and Newborn Screening Laboratories within the same building and under a single administration will facilitate even greater interaction and cooperation between the Unit and the Laboratories.

The Follow-Up Unit currently consists of Johnna Watson, a Nursing Program Consultant, and Carolyn Dinsmore, a Genetic Counselor. The Unit will be augmented with an office secretary and a half-time Clinical Geneticist, a physician with formal training in medical genetics. The physician-geneticist will be provided through a memorandum of agreement (MOA) between the Laboratories Administration and the Division of Human Genetics in the University of Maryland's School of

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.

# Laboratory Statistics

Reported from the  
Laboratories Administration  
during the month of  
**October 2008**

## ENTERIC BACTERIOLOGY

### GENUS SEROVAR

SEX	AGE	#	JURISDICTION
M	0	1	ALLEGANY
CAMPYLOBACTER JEJUNI			
F	0	1	BALTIMORE
U	30	1	MONTGOMERY
CAMPYLOBACTER UPSALIENSIS			
F	90	2	BALTIMORE CITY
ESCHERICHIA COLI, SEROTYPE O157:H7			
F	0	1	BALTIMORE
F	44	1	FREDERICK
M	12	1	OUT OF STATE
M	1	1	OUT OF STATE
SALMONELLA			
F	85	1	BALTIMORE
M	0	1	MONTGOMERY
U	27	1	OUT OF STATE
F	41	1	OUT OF STATE
F	27	1	OUT OF STATE
F	1	2	PRINCE GEORGE'S
F	0	1	PRINCE GEORGE'S
M	19	2	PRINCE GEORGE'S
SALMONELLA BAREILLY			
U	0	1	BALTIMORE
SALMONELLA BRAENDERUP			
F	41	1	BALTIMORE CITY
SALMONELLA ENTERITIDIS			
F	23	1	ALLEGANY
M	0	1	BALTIMORE
M	0	1	BALTIMORE
U	0	1	BALTIMORE CITY
F	60	1	BALTIMORE CITY
F	29	1	BALTIMORE CITY
F	27	1	BALTIMORE CITY
F	19	1	BALTIMORE CITY
F	0	1	BALTIMORE CITY
F	0	1	BALTIMORE CITY
F	0	1	BALTIMORE CITY
M	0	1	BALTIMORE CITY

M	48	1	BALTIMORE CITY
M	20	1	BALTIMORE CITY
M	15	1	BALTIMORE CITY
M	3	1	BALTIMORE CITY
M	59	1	CHARLES
M	0	1	HOWARD
M	0	1	MONTGOMERY
U	3	1	OUT OF STATE
F	74	1	OUT OF STATE
F	69	1	OUT OF STATE
F	20	1	OUT OF STATE
M	59	1	OUT OF STATE
M	58	1	OUT OF STATE
M	14	1	OUT OF STATE
F	57	1	PRINCE GEORGE'S
M	0	1	PRINCE GEORGE'S
F	0	1	TALBOT
M	64	1	TALBOT
M	43	1	UNKNOWN
U	0	1	WASHINGTON
SALMONELLA HEIDELBERG			
F	0	1	BALTIMORE
M	0	1	BALTIMORE
SALMONELLA JAVIANA			
F	7	1	ANNE ARUNDEL
F	43	1	BALTIMORE
F	7	1	OUT OF STATE
F	2	1	OUT OF STATE
M	42	1	WICOMICO
SALMONELLA NEWPORT			
U	0	1	ANNE ARUNDEL
M	24	1	MONTGOMERY
F	14	1	OUT OF STATE
SALMONELLA ORANIENBURG			
M	45	1	BALTIMORE
F	10	1	OUT OF STATE
F	9	1	OUT OF STATE
SALMONELLA SCHWARZENGRUND			
F	0	1	ALLEGANY
SALMONELLA SER TYPHIMURIUM			
F	78	1	BALTIMORE
M	0	1	BALTIMORE
M	0	1	MONTGOMERY
U	36	1	OUT OF STATE
U	5	1	OUT OF STATE
F	0	1	WASHINGTON
SALMONELLA TYPHI			
F	11	1	HOWARD
F	47	3	PRINCE GEORGE'S
F	18	1	PRINCE GEORGE'S
SALMONELLA TYPHIMURIUM			
U	0	1	BALTIMORE
U	20	1	BALTIMORE CITY
M	23	1	BALTIMORE CITY
M	77	1	FREDERICK
M	55	1	FREDERICK
U	4	1	OUT OF STATE
M	22	1	OUT OF STATE
M	28	1	PRINCE GEORGE'S
SALMONELLA TYPHIMURIUM VAR COPENHAGEN			
U	65	1	CHARLES
U	1	1	OUT OF STATE
M	1	2	SOMERSET

SHIGELLA SONNEI			
U	0	2	BALTIMORE CITY
M	5	1	BALTIMORE CITY
F	5	1	HARFORD
F	60	1	OUT OF STATE
M	47	1	OUT OF STATE
VIBRIO VULNIFICUS			
M	61	1	BALTIMORE

**TOTAL 97**

## ISOLATES -THROAT CULTURES

COUNTY	GROUP A <sup>1</sup>	NON-GROUP A
ALLEGANY	1	16
SOMERSET	1	3
WICOMICO	1	17
<b>TOTAL</b>	<b>3</b>	<b>36</b>
<sup>1</sup> <i>Streptococcus pyogenes</i>		

## ISOLATES - REFERENCE

### GENUS SPECIES

SOURCE	#	JURISDICTION
ACINETOBACTER CALCOACETICUS		
WOUND	1	ALLEGANY
BUTTOCK	1	WICOMICO
ACINETOBACTER CALCOACETICUS-BAUMANNI COMPLEX		
URINE	1	WICOMICO
ENTEROBACTER CLOACAE		
OTHER	1	ALLEGANY
ESCHERICHIA COLI		
URINE	1	WICOMICO
KLEBSIELLA PNEUMONIAE		
OTHER	1	HARFORD
URINE	1	PRINCE GEORGE'S
OTHER	2	WICOMICO
URINE	2	WICOMICO
STAPHYLOCOCCUS AUREUS		
WOUND	1	BALTIMORE CITY
KNEE	1	WICOMICO
ULCER	1	WICOMICO
WOUND	2	WICOMICO
STREPTOCOCCUS, BETA HEMOLYTIC		
OTHER	1	BALTIMORE
BLOOD	1	BALTIMORE
VIBRIO CHOLERAEE		
STOOL	1	BALTIMORE CITY

**TOTAL 19**

**ISOLATES - MISCELLANEOUS**

GENUS SPECIES		
SOURCE	#	JURISDICTION
<b>ENTEROCOCCUS FAECALIS</b>		
BLOOD	1	BALTIMORE CITY
<b>GARDNERELLA VAGINALIS</b>		
VAGINAL	1	PRINCE GEORGE'S
VAGINAL	2	PRINCE GEORGE'S
VAGINAL	3	SOMERSET
VAGINAL	1	SOMERSET
<b>KLEBSIELLA PNEUMONIAE</b>		
CSF	1	BALTIMORE CITY
<b>SERRATIA PLYMUTHICA</b>		
OTHER	1	FREDERICK
<b>STAPHYLOCOCCUS AUREUS</b>		
ABSCCESS	2	BALTIMORE CITY
BLOOD	2	BALTIMORE CITY
LEG	1	BALTIMORE CITY
WOUND	1	BALTIMORE CITY
WOUND	2	BALTIMORE CITY
NASAL	3	CARROLL
NASAL	1	CARROLL
OTHER	1	CARROLL
WOUND	3	FREDERICK
VAGINAL	1	PRINCE GEORGE'S
<b>STAPHYLOCOCCUS COHNII</b>		
BLOOD	1	BALTIMORE CITY
<b>STAPHYLOCOCCUS EPIDERMIDIS</b>		
BLOOD	2	BALTIMORE CITY
<b>STAPHYLOCOCCUS, COAGULASE NEGATIVE</b>		
BLOOD	1	BALTIMORE CITY
CSF	2	BALTIMORE CITY
WOUND	1	BALTIMORE CITY
WOUND	5	FREDERICK
<b>STREPTOCOCCUS, ALPHA HEMOLYTIC</b>		
WOUND	1	BALTIMORE CITY
OTHER	1	CARROLL
<b>STREPTOCOCCUS, BETA HEMOLYTIC GROUP B</b>		
VAGINAL	1	CECIL
VAGINAL	1	MONTGOMERY
VAGINAL	1	MONTGOMERY
VAGINAL	2	PRINCE GEORGE'S
VAGINAL	3	PRINCE GEORGE'S
VAGINAL	6	PRINCE GEORGE'S
VAGINAL	1	SOMERSET
<b>STREPTOCOCCUS SALIVARUS</b>		
BLOOD	1	BALTIMORE CITY
<b>TOTAL</b>	<b>57</b>	

**SEXUALLY TRANSMITTED DISEASES**

GENUS SPECIES		
SEX	#	JURISDICTION
<b>SYPHILIS SEROLOGY</b>		
F	3	ANNE ARUNDEL
M	2	ANNE ARUNDEL
F	11	BALTIMORE

M	6	BALTIMORE
F	26	BALTIMORE CITY
M	28	BALTIMORE CITY
U	2	BALTIMORE CITY
F	1	CARROLL
M	1	CARROLL
U	1	CARROLL
M	4	CHARLES
M	1	FREDERICK
M	1	HARFORD
F	2	HOWARD
M	2	HOWARD
F	4	MONTGOMERY
M	11	MONTGOMERY
F	13	PRINCE GEORGE'S
M	30	PRINCE GEORGE'S
F	1	TALBOT
U	1	TALBOT
F	1	WASHINGTON
M	3	WASHINGTON
F	4	WICOMICO
M	2	WICOMICO
F	1	WORCESTER
<b>TOTAL</b>	<b>162</b>	

<b>CHLAMYDIA TRACHOMATIS</b>		
F	5	ALLEGANY
M	8	ALLEGANY
U	2	ALLEGANY
F	12	ANNE ARUNDEL
M	7	ANNE ARUNDEL
F	1	BALTIMORE
M	11	BALTIMORE
U	2	BALTIMORE
F	4	BALTIMORE CITY
M	46	BALTIMORE CITY
M	8	CECIL
M	19	HARFORD
F	1	HOWARD
M	2	HOWARD
M	4	KENT
F	11	MONTGOMERY
M	31	MONTGOMERY
F	22	PRINCE GEORGE'S
M	36	PRINCE GEORGE'S
U	4	PRINCE GEORGE'S
M	9	SOMERSET
F	3	WICOMICO
M	2	WICOMICO
<b>TOTAL</b>	<b>250</b>	

<b>NEISSERIA GONORRHOEAE</b>		
F	1	ALLEGANY
F	2	ANNE ARUNDEL
U	1	ANNE ARUNDEL
F	1	BALTIMORE
M	1	BALTIMORE
F	2	BALTIMORE CITY
F	2	CAROLINE
F	2	CHARLES
M	4	CHARLES
F	1	FREDERICK
M	1	FREDERICK
M	1	HOWARD
M	1	MONTGOMERY
F	7	PRINCE GEORGE'S
M	17	PRINCE GEORGE'S

F	1	SAINT MARY'S
F	3	SOMERSET
F	13	WICOMICO
M	21	WICOMICO
M	3	WORCESTER
M	1	WORCESTER
<b>TOTAL</b>	<b>86</b>	

**PENICILLIN RESISTANT GONORRHEA**

REPORTED QUARTERLY  
NONE REPORTED THIS QUARTER

**MYCOBACTERIOLOGY**

ISOLATE		
SEX	AGE	JURISDICTION
<b>ACID-FAST BACILLI SEEN IN CULTURE - NON-VIABLE.</b>		
M	49	1 MONTGOMERY
<b>AEROBIC ACTINOMYCETE FOUND, SENT TO MYCOLOGY FOR FINAL ID.</b>		
F	69	1 BALTIMORE
<b>MYCOBACTERIUM ABSCESSUS</b>		
M	33	1 ANNE ARUNDEL
<b>MYCOBACTERIUM AVIUM COMPLEX</b>		
U	66	1 ALLEGANY
F	55	1 ANNE ARUNDEL
F	74	1 ANNE ARUNDEL
F	88	1 ANNE ARUNDEL
M	53	1 ANNE ARUNDEL
F	22	1 BALTIMORE
F	54	1 BALTIMORE
F	74	2 BALTIMORE
F	87	1 BALTIMORE
M	33	1 BALTIMORE
M	64	1 BALTIMORE
M	68	1 BALTIMORE
M	69	1 BALTIMORE
M	70	1 BALTIMORE
F	37	1 BALTIMORE CITY
M	0	1 BALTIMORE CITY
M	24	1 BALTIMORE CITY
M	45	1 BALTIMORE CITY
M	79	1 BALTIMORE CITY
M	81	1 CALVERT
M	48	1 CARROLL
F	63	1 FREDERICK
F	81	1 FREDERICK
F	85	1 FREDERICK
F	57	1 HARFORD
F	102	2 MONTGOMERY
F	51	1 MONTGOMERY
F	89	1 MONTGOMERY
M	35	1 MONTGOMERY
M	40	1 MONTGOMERY
M	72	1 WICOMICO

MYCOBACTERIUM CHELONAE			
F	81	2	BALTIMORE
F	41	1	MONTGOMERY
F	24	1	PRINCE GEORGE'S
MYCOBACTERIUM FLAVESCENS			
F	41	1	MONTGOMERY
MYCOBACTERIUM FORTUITUM			
F	81	1	BALTIMORE CITY
F	64	1	MONTGOMERY
MYCOBACTERIUM GORDONAE			
F	78	1	BALTIMORE
F	44	1	BALTIMORE CITY
M	44	1	BALTIMORE CITY
M	55	1	BALTIMORE CITY
F	32	1	FREDERICK
F	24	1	MONTGOMERY
F	57	1	MONTGOMERY
F	79	1	MONTGOMERY
M	31	1	PRINCE GEORGE'S
M	82	1	WICOMICO
MYCOBACTERIUM KANSASII			
F	57	1	MONTGOMERY
F	68	1	MONTGOMERY
M	69	3	OUT OF STATE
M	36	3	PRINCE GEORGE'S
MYCOBACTERIUM MARINUM			
M	67	1	BALTIMORE CITY
MYCOBACTERIUM SZULGAI			
M	65	1	BALTIMORE CITY
F	45	1	FREDERICK
MYCOBACTERIUM TERRAE			
M	52	1	BALTIMORE
MYCOBACTERIUM TUBERCULOSIS			
M	51	1	BALTIMORE CITY
F	42	1	HOWARD
F	26	1	MONTGOMERY
F	64	1	MONTGOMERY
F	76	1	MONTGOMERY
M	23	1	MONTGOMERY
M	29	1	MONTGOMERY
M	50	1	MONTGOMERY
M	58	1	MONTGOMERY
M	37	1	OUT OF STATE
MYCOBACTERIUM TUBERCULOSIS			
COMPLEX			
F	73	1	ANNE ARUNDEL
F	42	1	BALTIMORE
M	50	1	BALTIMORE
F	53	1	BALTIMORE CITY
M	30	1	BALTIMORE CITY
M	49	1	BALTIMORE CITY
M	60	1	BALTIMORE CITY
M	80	2	BALTIMORE CITY
M	25	1	FREDERICK
F	42	3	HOWARD
U	95	1	MONTGOMERY
F	23	6	MONTGOMERY
F	24	4	MONTGOMERY
F	43	1	MONTGOMERY
F	64	5	MONTGOMERY
F	68	1	MONTGOMERY
F	76	3	MONTGOMERY
M	22	3	MONTGOMERY
M	50	1	MONTGOMERY
M	51	1	MONTGOMERY
F	38	1	OUT OF STATE
F	79	1	OUT OF STATE
M	26	1	OUT OF STATE

M	39	1	OUT OF STATE
M	48	1	OUT OF STATE
F	20	4	PRINCE GEORGE'S
F	30	1	PRINCE GEORGE'S
F	41	4	PRINCE GEORGE'S
M	26	2	PRINCE GEORGE'S
M	31	7	PRINCE GEORGE'S
M	36	5	PRINCE GEORGE'S
M	50	4	PRINCE GEORGE'S
M	74	1	PRINCE GEORGE'S
M	33	1	UNKNOWN
M	75	6	WICOMICO
MYCOBACTERIUM XENOPI			
M	53	1	MONTGOMERY
MYCOBACTERIUM, NON-TB			
M	50	1	ANNE ARUNDEL
NON-PHOTOCHROMOGENIC			
MYCOBACTERIA			
F	84	1	FREDERICK
<b>TOTAL</b>	<b>157</b>		

### MYCOBACTERIUM SUSCEPTIBILITY RESULTS

19 ISOLATES IDENTIFIED  
5 DRUG RESISTANT STRAINS FOUND

#	COUNTY	DRUG(S)
3 <sup>A</sup>	BALTIMORE	ISONIAZID
1	BALTIMORE CITY	ISONIAZID, STREPTOMYCIN
1	OUT OF STATE	ISONIAZID, STREPTOMYCIN

<sup>A</sup> TWO ISOLATES FROM THE SAME PATIENT

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

### MYCOLOGY

ISOLATE	SEX	AGE	#	JURISDICTION
ALTERNARIA SPECIES				
M	72	1		TALBOT
ASPERGILLUS FLAVUS				
F	34	1		ANNE ARUNDEL
M	45	1		MONTGOMERY
ASPERGILLUS FUMIGATUS				
F	55	3		ALLEGANY
F	61	1		ALLEGANY
	0	2		ANNE ARUNDEL
F	0	1		ANNE ARUNDEL
M	70	1		ANNE ARUNDEL
M	50	1		BALTIMORE CITY
M	67	1		CHARLES

M	71	1	CHARLES
M	78	1	CHARLES
F	36	1	PRINCE GEORGE'S
F	88	1	PRINCE GEORGE'S
M	68	1	PRINCE GEORGE'S
M	73	1	PRINCE GEORGE'S
ASPERGILLUS NIGER			
F	83	1	ANNE ARUNDEL
F	84	1	ANNE ARUNDEL
M	47	1	PRINCE GEORGE'S
M	57	1	PRINCE GEORGE'S
ASPERGILLUS OCHRACEUS			
M	69	1	BALTIMORE CITY
ASPERGILLUS VERSICOLOR			
F	68	1	ANNE ARUNDEL
M	65	1	ANNE ARUNDEL
BIPOLARIS SPECIES			
M	2	1	TALBOT
M	4	1	TALBOT
CANDIDA ALBICANS			
F	38	1	BALTIMORE
M	23	1	BALTIMORE
F	49	1	BALTIMORE CITY
F	51	1	BALTIMORE CITY
F	85	1	BALTIMORE CITY
M	21	1	BALTIMORE CITY
M	25	1	BALTIMORE CITY
M	42	1	BALTIMORE CITY
M	45	1	BALTIMORE CITY
M	48	1	BALTIMORE CITY
M	97	1	BALTIMORE CITY
F	38	1	CALVERT
M	59	1	CARROLL
F	<1	1	CECIL
F	54	1	MONTGOMERY
F	66	1	MONTGOMERY
F	75	3	MONTGOMERY
M	31	1	MONTGOMERY
M	36	1	MONTGOMERY
M	45	2	MONTGOMERY
M	51	1	MONTGOMERY
M	53	1	MONTGOMERY
M	83	1	MONTGOMERY
	63	1	PRINCE GEORGE'S
F	17	1	PRINCE GEORGE'S
F	18	3	PRINCE GEORGE'S
F	19	2	PRINCE GEORGE'S
F	20	1	PRINCE GEORGE'S
F	21	1	PRINCE GEORGE'S
F	23	1	PRINCE GEORGE'S
F	42	1	PRINCE GEORGE'S
F	51	1	PRINCE GEORGE'S
F	55	1	PRINCE GEORGE'S
F	66	1	PRINCE GEORGE'S
F	67	1	PRINCE GEORGE'S
F	69	1	PRINCE GEORGE'S
F	78	1	PRINCE GEORGE'S
F	79	1	PRINCE GEORGE'S
F	90	1	PRINCE GEORGE'S
M	48	1	PRINCE GEORGE'S
M	57	1	PRINCE GEORGE'S
M	64	1	PRINCE GEORGE'S
F	<1	1	SOMERSET
F	18	4	SOMERSET
F	19	4	SOMERSET
F	20	2	SOMERSET
F	21	2	SOMERSET
F	21	1	WICOMICO

CANDIDA GLABRATA			
F	51	1	BALTIMORE CITY
F	38	1	CALVERT
F	23	1	CARROLL
F	50	1	MONTGOMERY
F	40	1	PRINCE GEORGE'S
F	51	1	PRINCE GEORGE'S
F	78	1	PRINCE GEORGE'S
CANDIDA KEFYR			
F	27	1	MONTGOMERY
CANDIDA KRUSEI			
F	22	1	PRINCE GEORGE'S
CANDIDA LUSITANIAE			
F	59	1	MONTGOMERY
CANDIDA PARAPSILOSIS			
M	46	1	BALTIMORE CITY
M	44	1	FREDERICK
M	53	1	MONTGOMERY
F	19	1	PRINCE GEORGE'S
F	42	1	PRINCE GEORGE'S
CANDIDA TROPICALIS			
	82	1	PRINCE GEORGE'S
F	<1	1	PRINCE GEORGE'S
F	39	1	PRINCE GEORGE'S
F	45	1	PRINCE GEORGE'S
F	71	1	PRINCE GEORGE'S
M	61	1	PRINCE GEORGE'S
M	82	2	PRINCE GEORGE'S
CLADOSPORIUM SPECIES			
M	49	1	ANNE ARUNDEL
M	61	1	BALTIMORE CITY
M	83	1	BALTIMORE CITY
M	69	1	TALBOT
M	72	1	TALBOT
M	77	1	TALBOT
F	58	1	WICOMICO
CRYPTOCOCCUS SPECIES			
M	67	1	BALTIMORE CITY
CURVULARIA SPECIES			
F	60	1	ALLEGANY
F	66	1	PRINCE GEORGE'S
F	4	1	TALBOT
M	77	1	TALBOT
M	84	1	TALBOT
F	34	1	WICOMICO
DEMATIACEOUS FUNGI IMPERFECTI			
F	65	1	ALLEGANY
EPICOCCUM SPECIES			
F	70	1	TALBOT
F	78	1	TALBOT
M	33	1	TALBOT
EXOPHIALA SPECIES			
M	57	1	BALTIMORE CITY
FUSARIUM SPECIES			
F	50	1	FREDERICK
M	33	1	TALBOT
M	43	1	TALBOT
U	44	1	WICOMICO
MOULD			
F	62	1	BALTIMORE CITY
MUCOR SPECIES			
M	76	1	FREDERICK
MYCELIA STERILIA			
F	78	1	ALLEGANY
F	69	1	ANNE ARUNDEL
M	72	1	BALTIMORE CITY
F	77	1	TALBOT

NOCARDIA NOVA			
F	78	1	BALTIMORE
F	77	1	HARFORD
PAECILOMYCES SPECIES			
M	65	1	BALTIMORE CITY
PENICILLIUM SPECIES			
F	81	1	ALLEGANY
F	68	1	ANNE ARUNDEL
M	0	1	BALTIMORE CITY
M	69	1	BALTIMORE CITY
F	58	1	MONTGOMERY
M	53	1	MONTGOMERY
F	66	1	PRINCE GEORGE'S
M	57	1	PRINCE GEORGE'S
M	66	1	PRINCE GEORGE'S
M	87	1	WICOMICO
SCEDOSPORIUM APOSPERMUM			
M	91	1	CARROLL
STREPTOMYCES SPECIES			
M	60	1	ALLEGANY
	0	1	ANNE ARUNDEL
TRICHOPHYTON RUBRUM			
F	47	1	BALTIMORE CITY
M	72	1	BALTIMORE CITY
M	85	1	BALTIMORE CITY
F	81	1	TALBOT
TRICHOPHYTON TONSURANS			
M	3	1	BALTIMORE
M	11	1	BALTIMORE CITY
F	11	2	TALBOT
M	4	1	TALBOT
M	7	1	TALBOT
TRICHOSPORON INKIN			
F	19	1	PRINCE GEORGE'S
<b>TOTAL</b>		<b>375</b>	

## FOOD SAFETY & SECURITY

FOOD	
48 SAMPLES	
2 NOTABLE PATHOGENS:	
1 SALMONELLA SP.	
1 CAMPYLOBACTER SP.	
CRABMEAT	
4 SAMPLES	
0 EXCEEDING STANDARDS <sup>1</sup>	
NOTABLE PATHOGENS:	
NONE	
SHELLFISH	
0 SAMPLES	
0 EXCEEDING STANDARDS <sup>2</sup>	
NOTABLE PATHOGENS:	
NONE	
SHELLFISH GROWING WATERS	
348 SAMPLES	
<b>400 TOTAL SAMPLES</b>	
<b>2 TOTAL STANDARDS EXCEEDED</b>	

## STANDARDS

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

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

## PARASITOLOGY

GENUS/SPECIES	#	JURISDICTION
BLASTOCYSTIS HOMINIS		
	2	FREDERICK
	1	HOWARD
	3	PRINCE GEORGE'S
	2	MONTGOMERY
	2	FREDERICK
	1	PRINCE GEORGE'S
	1	BALTIMORE CITY
	1	PRINCE GEORGE'S
	1	BALTIMORE CITY
	1	PRINCE GEORGE'S
	1	MONTGOMERY
	1	FREDERICK
	2	MONTGOMERY
	3	BALTIMORE CITY
	2	HOWARD
	1	BALTIMORE CITY
	1	HOWARD
	1	FREDERICK
DIENTAMOEBIA FRAGILIS		
	1	MONTGOMERY
ENDOLIMAX NANA		
	2	FREDERICK
	1	BALTIMORE CITY
	1	MONTGOMERY
	1	PRINCE GEORGE'S
	1	PRINCE GEORGE'S
ENTAMEBA COLI		
	1	WASHINGTON
ENTEROBIUS VERMICULARIS		
	1	CARROLL
	1	BALTIMORE CITY
	1	UNKNOWN
	1	CARROLL
	1	FREDERICK
	1	WASHINGTON
	1	FREDERICK
GIARDIA LAMBLIA		
	2	PRINCE GEORGE'S
	2	MONTGOMERY
	1	PRINCE GEORGE'S
	1	HOWARD
HOOKWORM		
	6	HOWARD
<b>TOTAL</b>		<b>54</b>

## VIRUS ISOLATION

ISOLATE	SEX	AGE	#	JURISDICTION
<b>ECHOVIRUS 4</b>				
M		6	1	TALBOT
<b>SUBTOTAL 1</b>				
<b>ENTEROVIRUS 71</b>				
M		0	1	BALTIMORE CITY
M		0	1	BALTIMORE CITY
<b>SUBTOTAL 2</b>				
<b>HERPES SIMPLEX VIRUS TYPE 1</b>				
F		28	1	PRINCE GEORGE'S
M		0	1	BALTIMORE CITY
<b>SUBTOTAL 2</b>				
<b>INFLUENZA B VIRUS</b>				
M		81	1	WASHINGTON
<b>SUBTOTAL 1</b>				
<b>TOTAL</b>				<b>6</b>

## WATER MICROBIOLOGY

	# TESTED	# NON-COMPLIANT
COMMUNITY	2	0
NON-COMMUNITY	324	82
<b>TOTAL</b>	<b>326</b>	<b>82</b>

## VIRAL POLYMERASE CHAIN REACTION (PCR)

ISOLATE	SEX	AGE	#	JURISDICTION
<b>HERPES SIMPLEX VIRUS TYPE 1</b>				
F		18	1	ALLEGANY
F		21	1	ALLEGANY
F		22	1	ALLEGANY
F		19	1	BALTIMORE
F		19	1	BALTIMORE CITY
M		30	1	BALTIMORE CITY
M		19	1	CECIL
F		21	1	FREDERICK
F		26	1	FREDERICK
F		16	1	HARFORD
F		18	1	PRINCE GEORGE'S
F		20	1	PRINCE GEORGE'S
F		21	1	PRINCE GEORGE'S
F		24	2	PRINCE GEORGE'S
M		22	2	PRINCE GEORGE'S
M		23	1	PRINCE GEORGE'S

M	24	1	SAINT MARY'S
U	19	1	SOMERSET
F	19	1	TALBOT
<b>HERPES SIMPLEX VIRUS TYPE 2</b>			
F	39	1	ANNE ARUNDEL
M	25	1	ANNE ARUNDEL
F	18	1	BALTIMORE
F	20	1	BALTIMORE
F	21	1	BALTIMORE
F	23	1	BALTIMORE
F	25	1	BALTIMORE
F	36	1	BALTIMORE
U	0	1	BALTIMORE CITY
U	26	1	BALTIMORE CITY
U	44	1	BALTIMORE CITY
F	0	2	BALTIMORE CITY
F	19	2	BALTIMORE CITY
F	21	1	BALTIMORE CITY
F	22	1	BALTIMORE CITY
F	24	2	BALTIMORE CITY
F	25	1	BALTIMORE CITY
F	38	1	BALTIMORE CITY
F	48	1	BALTIMORE CITY
M	19	2	BALTIMORE CITY
M	20	2	BALTIMORE CITY
M	21	2	BALTIMORE CITY
M	22	1	BALTIMORE CITY
M	23	1	BALTIMORE CITY
M	24	3	BALTIMORE CITY
M	26	1	BALTIMORE CITY
M	30	1	BALTIMORE CITY
M	37	2	BALTIMORE CITY
M	48	1	BALTIMORE CITY
M	49	2	BALTIMORE CITY
M	50	1	BALTIMORE CITY
M	52	1	BALTIMORE CITY
M	53	1	BALTIMORE CITY
M	56	1	BALTIMORE CITY
F	19	1	CALVERT
F	23	1	CALVERT
F	23	1	CECIL
M	27	1	CECIL
F	19	1	CHARLES
F	22	1	FREDERICK
F	35	1	FREDERICK
F	49	1	FREDERICK
F	20	1	PRINCE GEORGE'S
F	23	1	PRINCE GEORGE'S
F	24	1	PRINCE GEORGE'S
F	26	1	PRINCE GEORGE'S
F	28	1	PRINCE GEORGE'S
F	47	1	PRINCE GEORGE'S
F	21	1	UNKNOWN
F	0	1	WASHINGTON
F	22	1	WICOMICO
F	28	2	WICOMICO
F	31	1	WICOMICO
M	26	1	WICOMICO
M	34	1	WICOMICO
<b>INFLUENZA B VIRUS</b>			
M	81	1	WASHINGTON
<b>POSITIVE ENTEROVIRUS</b>			
M	6	1	TALBOT
<b>TOTAL</b>			<b>89</b>

## VIRAL HEPATITIS

ORGANISM	# SPECIMENS	# POSITIVES	JURISDICTION
<b>HEPATITIS A</b>			
	2	0	BALTIMORE
	2	0	BALTIMORE CITY
	1	0	CARROLL
	2	0	PRINCE GEORGE'S
<b>SUBTOTAL 7 0</b>			
<b>HEPATITIS B</b>			
	61	0	ALLEGANY
	214	2	ANNE ARUNDEL
	92	2	BALTIMORE
	731	8	BALTIMORE CITY
	10	1	CALVERT
	45	0	CARROLL
	162	2	CECIL
	6	0	CHARLES
	77	0	FREDERICK
	17	0	GARRETT
	40	0	HARFORD
	35	1	HOWARD
	1	0	KENT
	277	12	MONTGOMERY
	2	0	PRINCE GEORGE'S
	429	11	PRINCE GEORGE'S
	1	0	QUEEN ANNE'S
	10	0	SOMERSET
	9	0	TALBOT
	9	1	UNKNOWN
	35	0	WASHINGTON
	108	0	WICOMICO
	3	0	WORCESTER
<b>SUBTOTAL 2,374 40</b>			
<b>HEPATITIS C</b>			
	45	6	ALLEGANY
	225	61	ANNE ARUNDEL
	93	5	BALTIMORE
	394	86	BALTIMORE CITY
	11	0	CALVERT
	40	11	CARROLL
	100	19	CECIL
	5	0	CHARLES
	75	2	FREDERICK
	17	0	GARRETT
	24	1	HARFORD
	1	0	HOWARD
	1	1	KENT
	41	2	MONTGOMERY
	2	1	PRINCE GEORGE'S
	265	7	PRINCE GEORGE'S
	5	0	QUEEN ANNE'S
	2	0	SAINT MARY'S
	3	1	SOMERSET
	11	0	TALBOT
	4	1	UNKNOWN

12	0	WASHINGTON
24	1	WICOMICO
3	0	WORCESTER

**SUBTOTAL**  
1,403 205

**TOTALS**  
3,784 245

**RABIES**

CAT	1	HOWARD
FOX	1	QUEEN ANNE'S
	1	BALTIMORE CITY
RACCOON	1	ALLEGANY
	1	ANNE ARUNDEL
	1	DORCHESTER
	4	FREDERICK
	9	MONTGOMERY
	1	PRINCE GEORGE'S
	2	TALBOT
	1	WASHINGTON
	1	WICOMICO
	1	WORCESTER
	3	BALTIMORE CITY
SKUNK	1	ANNE ARUNDEL
	1	CAROLINE
	1	CARROLL
	1	QUEEN ANNE'S
	1	ST. MARY'S

**TOTAL POSITIVES** 33

**TOTAL SPECIMENS** 395

**CHLAMYDIOPHILIA PSITTACI**  
(CHLAMYDIA)

REPORTED QUARTERLY  
NO REPORT THIS MONTH

**CD4 FLOW CYTOMETRY WORKLOAD**

REPORTED QUARTERLY  
NO REPORT THIS MONTH

**BLOOD LEAD**

MARYLAND		
I	<10	151
IIA	10-14	14
IIB	15-19	6
III	20-44	11
IV	45-69	0
V	>69	0
<b>TOTAL</b>		<b>182</b>

WASHINGTON DC

I	<10	1
IIA	10-14	0
IIB	15-19	0
III	20-44	0
IV	45-69	0
V	>69	0
<b>TOTAL</b>		<b>1</b>

**NEWBORN & CHILDHOOD SCREENING**

**PRESUMPTIVE POSITIVES**

DISORDERS		#
PHENYLKETONURIA		0
MAPLE SYRUP URINE DISEASE		3
HOMOCYSTINURIA		11
TYROSINEMIA		8
ARGININEMIA		5
CITRULLINEMIA		0
GALACTOSEMIA		1
BIOTINIDASE DEFICIENCY		0
HYPOTHYROIDISM		68
HEMOGLOBIN -DISEASE		16
HEMOGLOBIN -BENIGN		417
CONGENITAL ADRENAL HYPERPLASIA (CAH)		37
CYSTIC FIBROSIS		0
FATTY ACID OXIDATIONS		2
ORGANIC ACIDEMIAS		11
ACYLCARNITINE - BORDERLINE		2
ACYLCARNITINE - OTHERS		0

**MONTHLY TOTALS**

# OF SPECIMENS SCREENED	10,417
NUMBER OF TESTS	654,317
% UNSATISFACTORY SPECIMENS	2.9

**YEAR-TO-DATE CONFIRMED CASES**

CONDITIONS	# CONFIRMED
MCAD	3
3MCC	2
SCAD	2
VLCAD	1
GA-I	1
IVA	1
PA	1
MAPLE SYRUP URINE DISEASE	
PKU-CLINICALLY SIGNIFICANT VARIANT	1
CLINICALLY SIGNIFICANT VARIANT	
HYPERPHENYLALANINEMIA	3
VARIANT HYPERPHENYLALANINEMIA (NOT CLINICALLY SIGNIFICANT)	1
CITRULINEMIA I (CIT-I)	1
GALACTOSEMIA-CLASSICAL GALT DEFICIENCY	4
GALACTOSEMIA - VARIANT	1
BIOTINIDASE DEFICIENCY	0
GALACTOSE EPIMERASE DEFICIENCY	0
PARTIAL BIOTINIDASE DEFICIENCY	0
CAH- CLASSICAL SALT WASTING	2
CAH-NON-CLASSICAL	0
HYPOTHYROIDISM - PRIMARY	21
OTHER HYPOTHYROIDISM	12
SECONDARY HYPOTHYROIDISM	3
SICKLE CELL DISEASE -SS	13
SICKLE CELL DISEASE -SC	6
SICKLE CELL DISEASE -S β	5
THALASSEMIA	
CYSTIC FIBROSIS	8

**ENVIRONMENTAL CHEMISTRY**

SAMPLES	# NON-COMPLIANT	# TESTED
ASBESTOS		
AIR	0	0
BULK	2	8
AIR QUALITY		
PM <sub>2.5</sub>	0	679
PM <sub>10</sub>	0	0
RADIATION		
AIR/CHARCOAL FILTERS	0	74
MILK	0	5
WIPES	0	40
RAW WATER	0	8
VEGETATION	0	0
OTHER	0	10
DRINKING WATER		
METALS		
COMMUNITY	17	30
NON-COMMUNITY	5	18
PRIVATE WELLS	83	260
PESTICIDES & PCBs		
COMMUNITY	0	72
NON-COMMUNITY	0	48
PRIVATE WELLS	0	0
VOLATILE ORGANIC COMPOUNDS		
COMMUNITY	4	266
NON-COMMUNITY	0	149
PRIVATE WELLS	2	151
RADIATION		
COMMUNITY	6	65
NON-COMMUNITY	0	0
PRIVATE WELLS	6	20
INORGANICS		
COMMUNITY	0	19
NON-COMMUNITY	6	82
PRIVATE WELLS	1	204
FOOD CHEMISTRY		
SUSPECTED TAMPERING	1	1
MICROSCOPIC FILTH	0	0
LABELING	0	0
SURVEILLANCE	0	4
CHEMICAL CONTAMINATION	0	0
<b>TOTAL</b>	<b>133</b>	<b>2,213</b>

### VIRAL LOAD SPECIMENS

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	9	1	3	0	13
CARROLL	3	0	0	0	3
FREDERICK	4	2	1	0	7
MONTGOMERY	105	20	18	5	148
PRINCE GEORGE'S	84	9	12	13	118
SOMERSET	1	0	0	0	1
WASHINGTON	4	2	3	1	10
<b>SUBTOTALS</b>	<b>210</b>	<b>34</b>	<b>37</b>	<b>19</b>	<b>300</b>
DEPT. OF CORRECTIONS	32	3	10	3	48
<b>TOTALS</b>	<b>242</b>	<b>37</b>	<b>47</b>	<b>22</b>	<b>348</b>

### HIV ANTIBODY SCREENING

	TOTAL SPECIMENS	# EIA POSITIVE	% EIA POSITIVE	# WB POSITIVE	% WB POSITIVE
HEALTH DEPARTMENTS AND CLINICS	2,884	195	6.76%	185	94.87%
HOSPITALS	128	9	7.03%	7	77.78%
DETENTION CENTERS	314	5	1.59%	3	60.00%
PRIVATE PHYSICIANS	8	0	0.00%	0	0.00%
STUDENT HEALTH CLINICS	324	2	0.62%	2	100.00%
EMPLOYEE HEALTH CLINICS	13	0	0.00%	0	0.00%
AUTOPSY (MEDICAL EXAMINER/HOSPITAL CASES)	286	14	4.90%	6	42.86%
ORGAN/TISSUE DONORS (ANATOMY BOARD/EYE BANK)	84	3	3.57%	0	0.00%
<b>TOTALS</b>	<b>4,041</b>	<b>228</b>	<b>5.64%</b>	<b>203</b>	<b>89.04%</b>



MAILING LABEL

**Critical Link**  
 o/o Georgia Corso, Room L-15  
 J. Mehsen Joseph Public Health Laboratory  
 Department of Health & Mental Hygiene  
 201 West Preston Street  
 Baltimore, Maryland 21201

