

CRITICAL LINK



A Publication of the
Maryland Department of
Health and Mental Hygiene

The Laboratories Administration—Maryland's State Public Health Laboratory

New Laboratory Completing Schematic Design Phase

Project's many
components come
together as vision
for the future

During the summer months of June, July, and August, architectural planning and laboratory design for Maryland's new central public health laboratory continued to require many complex but timely decisions. This was the schematic design phase of the project.

Schematic Design refers to the phase of an architectural project that establishes the general scope, conceptual design, scale, and relationships among the project's many components. The primary objective is to arrive at a clearly defined, feasible concept while exploring the most promising alternative design solutions. The architects prepared

a series of rough plans, or schematics, which showed the general arrangement of rooms and of the building on the site. Models and/or illustrations also were prepared to help visualize the project as it developed.

(Continued on page 2)

Training Emerging Infectious Disease Fellows from China

Win-win-win for fellows, scientists, & Laboratories Administration

Maryland has a history of interacting with China that goes back to 1980, when the State established a sister-state relationship with Anhui Province. In 1985, Baltimore City established a sister-city relationship with Xia Men City. Between 1980 and 2007 there were over a dozen visits by delegations from both Chinese provinces and Maryland visiting one another's home regions.

(Continued on page 3)



Photo 1: This is the site in East Baltimore, north of the Johns Hopkins Hospital Complex, where the new laboratory will be located, looking to the northwest. Currently, it is a parking lot. Photo: Georgia Corso

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Photo 2: Dan Rew, an architectural designer for HDR-CUH2A, uses a projected image of artists' renditions as part of the presentation of the latest design features for the new laboratory. Photo: Georgia Corso

(Continued from page 1)
New Laboratory Completing Schematic Design Phase

Many meetings by stakeholders were held in Baltimore, Bethesda, and elsewhere to discuss such topics as site visioning and analysis, external design concepts, building vibration requirements, laboratory module sizing, building automation systems, and

acceptable by both the laboratory scientists and architects.

Some of the trickiest but most satisfying planning involved the design of biosafety-level 3 laboratories, ground-



Photo 3: In the foreground is the Laboratories Administration Director, Dr. Jack DeBoy. Seated at the table, from the left, are: Wen Xiao, Tung Nguyen, Louis Fry III, Warren Hendrickson, Dan Rew, all from the firm HDR-CUH2A. Photo: Georgia Corso

(Continued from page 2)

New Laboratory Completing Schematic Design Phase

level support services areas, training spaces, prescreening laboratories, and administrative offices. The many uses assigned to the ground floor (specimen receiving and accessioning, loading docks and other laboratory-wide support areas, administrative offices, training spaces, and public entrance) made that floor prime real estate. In the end many compromises, as well as improvements, led to a floor design that fits efficiently into the floor plate's limited square footage.

Aside from laboratory floor plans, the most difficult part of the overall design project is to develop an outer design for the facility. This is important because it not only will represent the State's premier scientific agency, but also provide an appealing signature building that plays an important role in helping to rebuild that portion of East Baltimore north of the Johns Hopkins Medical Institutions.

This means the new facility has a broad group of stakeholders, including DHMH, the Maryland Economic Development Corporation (MEDCO), the Laboratories Administration, East Baltimore Development Incorporated, Forest City-New East Baltimore Partnership, the architects (HDR-

CUH2A), local community associations and elected officials, and the Johns Hopkins University. Satisfying all of these stakeholders, while at the same time meeting the Laboratories Administration's scientific needs and funding limit, is a tremendous challenge for all involved in the project.

The project will proceed to the next phase (design development) after MEDCO and DHMH, with input from other stakeholders, review, recommend revisions, and approve the Schematic Design. Design development is when the design moves from the schematic to the contract document phase. Architects and engineers prepare drawings and other presentation documents to crystallize the design and describe it in terms of architectural, electrical, mechanical, and structural systems. This phase also

includes a preliminary estimate of project cost.

Design development, beginning at the end of September, will include two formal workshops involving laboratory staff. In these workshops laboratory

staff will discuss, consider, and decide on laboratory casework, furniture, and other non-fixed items, aside from scientific instruments, that will be ordered as part of the building's design and construction. If things move forward on schedule, a design development report and another project cost estimate should be available for MEDCO and DHMH to review around the first of December.

This article prepared by Dr. Jack DeBoy.

(Continued from page 1) Training Fellows from China

Over the past year, Maryland has been honored to have two Emerging Infectious Disease Fellows from China assigned to the Laboratories Administration through a program sponsored by the Centers for Disease Control and Prevention (CDC) in Atlanta. Under the mentorship of Dr. Maria Carlos and Dr. Jafar Razeq, these fellows spent a year in Baltimore performing needed applied research for the Administration while obtaining public health laboratory

(Continued on page 4)



Photo 4: A wooden model made to scale of the blocks in the vicinity of the new laboratory was presented to the Laboratories Administration by HDR-CUH2A, showing adjacent buildings and the grid of streets. Also presented (right foreground) was a model of the new laboratory building. Dr. Jack DeBoy and Dr. Robert Myers look on. Photo: Georgia Corso



Photo 5: From left, John Lecker, Vice President of Development, Forest City - New East Baltimore Partnership, Dennis Miller of East Baltimore Development Inc. (EBDI), Bob Brennan of Medco, and Betsy Barnard, Department of Health and Mental Hygiene. Photo: Georgia Corso

(Continued from page 3)
Training Fellows from China

training. In June 2010, in an acknowledgement of the quality of training provided, Drs. Razeq and DeBoy received invitations from the Director of the Shanghai Veterinary Research Institute of the Chinese Academy of Agricultural Sciences (CAAS) to visit Shanghai and discuss a possible agreement under which additional training fellows could be sponsored in the Laboratories Administration.

One core function of every state public health laboratory is to train the next generation of public health laboratory scientists. For many years, the Laboratories Administration has had both formal and informal agreements with the Johns Hopkins University, National Institute of Health, George Washington University, and the Association of Public Health Laboratories (APHL) to provide training in public health microbiology, biochemical genetics, and laboratory management to graduate students, postdoctoral fellows, and foreign public health officials from Africa, the Caribbean, and East Asia.

Sponsoring fellows who train in the Laboratories Administration for year-long periods is a win-win-win situation for the fellows, their home countries, and the Laboratories Administration. The students receive excellent training in public health laboratory practice, their home countries obtain highly trained scientists, and the Laboratories Administration obtains highly motivated extra sets of hands to evaluate and implement new technology, validate new tests, and support its scientific programs by presenting scientific papers at national meetings, and submitting papers for publication in scientific journals.

Not only are the fellows fully supported (funded) by their home governments, but their presence enhances the productivity of the Administration's doctoral-level division chiefs. These fellows provide

assistance to efficiently evaluate and transfer new technology, conduct necessary applied research, and prepare resulting scientific papers for publication. In addition, the presence of training fellows provides the opportunity for Laboratory Administration scientists to learn new methods, to participate in applied research, and to contribute to scientific poster presentations and publications.

In response to the CAAS invitation and sponsorship, Dr. Razeq and Dr. DeBoy, traveled to China in mid-September. In Shanghai, they visited the Shanghai Veterinary Research Institute, where they met the Director, Dr. Guang-Zhi Tong, and made two presentations. One presentation was on public health laboratories in the United States and Maryland, and another focused on methicillin-resistant *Staphylococcus aureus* (MRSA). Dr. Razeq and Dr. DeBoy were also able to visit and tour the Shanghai Municipal Center for Disease Control and Prevention (CDC) and the Zhangjiagang CDC. The Shanghai CDC, established in 1998, and the Beijing CDC, established in 2000, are modeled on the CDC in the United States.

Since the SARS outbreak in 2003, the Chinese government has invested heavily in its public health infrastructure. One example of this is the recent establishment of public health laboratories in each of its 22 mainland provinces and autonomous regions. Over the past year, the APHL in the U.S. has also been playing a role in providing training in public health laboratory practice to laboratory staff from China's provincial public health laboratories.

As a result of these meetings, Dr. DeBoy found the Shanghai and Zhangjiagang CDCs most interested in developing training partnerships and exchanges of laboratory staff with the Laboratories Administration.

This article written by Dr. Jack DeBoy.

Laboratory Statistics

Reported by the
Laboratories Administration
covering results from the month of
August 2010

ENTERIC BACTERIOLOGY

GENUS SEROVAR			
SEX	AGE	#	JURISDICTION
CAMPYLOBACTER JEJUNI			
M	14	1	ALLEGANY
U	45	1	ANNE ARUNDEL
F	5	1	ANNE ARUNDEL
M	27	1	ANNE ARUNDEL
M	2	1	ANNE ARUNDEL
F	81	1	BALTIMORE
F	61	1	BALTIMORE
F	60	1	BALTIMORE
F	47	1	BALTIMORE
F	21	1	BALTIMORE
M	61	1	BALTIMORE
M	58	1	BALTIMORE
M	52	1	BALTIMORE
M	50	1	BALTIMORE
M	36	1	BALTIMORE
M	3	1	BALTIMORE
M	2	1	BALTIMORE CITY
M	25	1	CARROLL
M	4	1	CHARLES
M	73	1	HARFORD
F	85	1	MONTGOMERY
F	62	2	MONTGOMERY
F	19	1	MONTGOMERY
M	85	1	MONTGOMERY
M	75	2	MONTGOMERY
M	9	1	MONTGOMERY
F	61	1	OUT OF STATE
F	56	1	OUT OF STATE
F	46	1	OUT OF STATE
F	39	1	OUT OF STATE
F	12	1	OUT OF STATE
F	5	1	OUT OF STATE
F	3	1	OUT OF STATE
M	69	1	OUT OF STATE
M	62	1	OUT OF STATE
M	52	1	OUT OF STATE

M 51 1 OUT OF STATE
M 41 1 OUT OF STATE
M 33 1 OUT OF STATE
M 20 1 OUT OF STATE
M 16 1 OUT OF STATE
M 16 1 OUT OF STATE
M 12 1 OUT OF STATE
F 5 1 TALBOT
ESCHERICHIA COLI,
SEROTYPE 0157:H7
F 2 2 OUT OF STATE
ESCHERICHIA COLI,
SEROTYPE 0157:NON-MOTILE
M 2 1 ANNE ARUNDEL
M 8 1 ANNE ARUNDEL
SALMONELLA
M 33 1 BALTIMORE
F 78 1 BALTIMORE CITY
M 56 1 BALTIMORE CITY
U 0 1 BALTIMORE CITY
U 9 1 BALTIMORE CITY
F 81 1 CALVERT
M 0 1 MONTGOMERY
F 50 1 OUT OF STATE
F 25 1 OUT OF STATE
F 1 1 OUT OF STATE
M 68 1 OUT OF STATE
M 46 1 OUT OF STATE
M 12 1 OUT OF STATE
U 0 1 PRINCE GEORGE'S
F 17 1 TALBOT
M 45 1 TALBOT
SALMONELLA SER. 4,12:I:-
U 0 1 ANNE ARUNDEL
F 2 1 KENT
SALMONELLA SER. 4,5,12:I:-
F 0 1 BALTIMORE
F 35 1 OUT OF STATE
M 30 1 OUT OF STATE
SALMONELLA SER. ANATUM
F 60 1 BALTIMORE
SALMONELLA SER. BARDO
F 16 1 OUT OF STATE
M 40 1 OUT OF STATE
SALMONELLA SER. BRAENDERUP
M 7 1 BALTIMORE
F 59 3 BALTIMORE CITY
SALMONELLA SER. ENTERITIDIS
F 25 1 ALLEGANY
U 0 1 BALTIMORE
F 53 1 BALTIMORE
F 49 1 BALTIMORE
F 48 1 BALTIMORE
M 0 3 BALTIMORE
M 55 1 BALTIMORE
M 18 1 BALTIMORE
M 1 1 BALTIMORE
U 32 1 BALTIMORE CITY
U 30 1 BALTIMORE CITY
F 61 1 BALTIMORE CITY
F 52 1 BALTIMORE CITY
F 51 1 BALTIMORE CITY
F 8 1 BALTIMORE CITY
F 8 1 BALTIMORE CITY
F 4 1 BALTIMORE CITY
F 1 1 BALTIMORE CITY
F 1 1 BALTIMORE CITY

M 51 1 BALTIMORE CITY
M 46 1 BALTIMORE CITY
M 29 1 BALTIMORE CITY
M 15 1 BALTIMORE CITY
M 12 1 BALTIMORE CITY
M 3 1 BALTIMORE CITY
M 1 1 BALTIMORE CITY
F 34 1 CECIL
F 0 1 HARFORD
F 37 1 HARFORD
M 47 1 MONTGOMERY
M 11 1 MONTGOMERY
U 45 1 OUT OF STATE
F 9 1 OUT OF STATE
M 25 1 OUT OF STATE
M 25 1 OUT OF STATE
M 12 1 OUT OF STATE
F 0 1 PRINCE GEORGE'S
M 15 1 WASHINGTON
F 83 1 WICOMICO
SALMONELLA SER. HEIDELBERG
F 39 1 OUT OF STATE
SALMONELLA SER. INFANTIS
F 31 1 BALTIMORE
F 17 1 BALTIMORE
F 5 1 BALTIMORE
M 0 1 BALTIMORE
SALMONELLA SER. JAVIANA
M 3 1 OUT OF STATE
M 52 1 TALBOT
M 2 1 TALBOT
F 50 1 WASHINGTON
M 2 3 WORCESTER
SALMONELLA SER. MANHATTAN
F 41 1 BALTIMORE CITY
SALMONELLA SER. MIAMI
F 17 1 BALTIMORE
F 32 1 CALVERT
U 18 1 MONTGOMERY
F 59 1 OUT OF STATE
SALMONELLA SER. NEWPORT
F 50 1 ANNE ARUNDEL
M 49 1 ANNE ARUNDEL
U 43 1 BALTIMORE
M 18 1 BALTIMORE
F 52 1 BALTIMORE CITY
M 0 1 CALVERT
F 52 1 CECIL
M 13 1 HARFORD
F 71 1 MONTGOMERY
F 39 1 MONTGOMERY
M 42 1 MONTGOMERY
F 96 6 OUT OF STATE
M 16 1 OUT OF STATE
U 6 1 PRINCE GEORGE'S
M 54 1 TALBOT
M 54 2 TALBOT
M 20 1 TALBOT
U 0 1 UNKNOWN
F 53 1 WICOMICO
F 45 1 WICOMICO
M 61 1 WICOMICO
M 55 1 WICOMICO
M 54 1 WICOMICO
SALMONELLA SER. ORANIENBURG
M 12 1 BALTIMORE
M 7 2 BALTIMORE CITY

F 45 1 OUT OF STATE
F 43 1 OUT OF STATE
M 7 1 OUT OF STATE
SALMONELLA
SER. PARATYPHI B
F 29 1 ANNE ARUNDEL
M 4 1 OUT OF STATE
SALMONELLA SER. PARATYPHI
B VAR L(+) TARTRATE +
F 17 1 BALTIMORE
M 7 2 BALTIMORE
SALMONELLA SER. SAINTPAUL
F 32 1 BALTIMORE CITY
F 59 1 OUT OF STATE
SALMONELLA SER. STANLEY
M 28 1 ANNE ARUNDEL
SALMONELLA SER. TYPHI
F 0 1 BALTIMORE CITY
M 0 1 BALTIMORE CITY
M 0 1 BALTIMORE CITY
SALMONELLA SER. TYPHIMURIUM
M 2 1 CALVERT
F 4 1 CHARLES
M 32 1 CHARLES
M 0 1 FREDERICK
M 7 1 MONTGOMERY
F 71 1 OUT OF STATE
F 64 1 OUT OF STATE
F 5 1 OUT OF STATE
M 0 1 PRINCE GEORGE'S
SHIGELLA FLEXNERI
F 31 1 ANNE ARUNDEL
SHIGELLA SONNEI
F 2 1 BALTIMORE
M 4 3 BALTIMORE
U 50 1 BALTIMORE CITY
U 35 1 BALTIMORE CITY
M 51 1 BALTIMORE CITY
F 4 1 CHARLES
U 35 1 MONTGOMERY
M 25 1 MONTGOMERY
F 52 1 OUT OF STATE
F 2 1 OUT OF STATE
F 0 1 TALBOT
VIBRIO FLUVIALIS
M 65 1 BALTIMORE CITY
VIBRIO PARAHAEMOLYTICUS
M 85 1 ANNE ARUNDEL
M 32 1 BALTIMORE
M 65 1 BALTIMORE CITY
M 46 2 BALTIMORE CITY
F 41 1 BALTIMORE CITY

TOTAL 212

ISOLATES - REFERENCE

GENUS SPECIES
SOURCE # JURISDICTION
ACTINOMYCES MEYERI
ABSCESS 1 ALLEGANY
ACTINOMYCES ODONTOLYTICUS
ABSCESS 1 ALLEGANY
CORYNEBACTERIUM ALFERMENTANS
WOUND 1 ALLEGANY

EIKENELLA CORRODENS
 ARM 1 ALLEGANY
 ENTEROCOCCUS FAECIUM
 URINE 2 WICOMICO
 KLEBSIELLA PNEUMONIAE
 WOUND 1 CHARLES
 STAPHYLOCOCCUS AUREUS
 ARM 1 PRINCE GEORGE'S
 WOUND 1 PRINCE GEORGE'S
 STREPTOCOCCUS,
 BETA HEMOLYTIC GROUP A
 IS SUSCEPTABLE TO PENICILLIN
 THROAT 1 ALLEGANY

TOTAL 10

ISOLATES - MISCELLANEOUS

GENUS SPECIES
 SOURCE # JURISDICTION

ACINETOBACTER LWOFFI
 WOUND 1 ALLEGANY
 ACTINOMYCES MEYERI
 BLOOD 1 BALTIMORE CITY
 ASPERGILLUS SPECIES
 WOUND 1 CARROLL
 BACILLUS
 CSF 1 BALTIMORE CITY
 WOUND 1 CARROLL
 BACILLUS CEREUS
 BLOOD 1 BALTIMORE CITY
 ENTEROCOCCUS FAECIUM
 BLOOD 1 BALTIMORE CITY
 STOOL 2 WASHINGTON
 ENTEROCOCCUS FECALIS
 WOUND 1 PRINCE GEORGE'S
 ESCHERICHIA COLI
 BLOOD 2 BALTIMORE CITY
 GARDNERELLA VAGINALIS
 VAGINAL 10 PRINCE GEORGE'S
 KLEBSIELLA OXYTOCA
 BLOOD 1 BALTIMORE CITY
 KLEBSIELLA PNEUMONIAE
 BLOOD 1 BALTIMORE CITY
 MORAXELLA
 (BRANHAMELLA) CATARRHALIS
 EYE 1 PRINCE GEORGE'S
 PROVIDENCIA STUARTII
 BLOOD 1 BALTIMORE CITY
 STAPHYLOCOCCUS AUREUS
 WOUND 1 ALLEGANY
 BLOOD 1 BALTIMORE CITY
 NASAL 2 CARROLL
 WOUND 1 CARROLL
 WOUND 1 FREDERICK
 WOUND 1 PRINCE GEORGE'S
 STAPHYLOCOCCUS EPIDERMIDIS
 BLOOD 1 BALTIMORE CITY
 STAPHYLOCOCCUS,
 COAGULASE NEGATIVE
 ABSCESS 2 CARROLL
 STREPTOCOCCUS, ALPHA-HEMOLYTIC
 WOUND 1 PRINCE GEORGE'S

STREPTOCOCCUS,
 BETA HEMOLYTIC GROUP A
 THROATS 2 ALLEGANY
 STREPTOCOCCUS,
 BETA HEMOLYTIC NON-GROUP A
 THROATS 2 ALLEGANY
 STREPTOCOCCUS,
 BETA HEMOLYTIC GROUP B
 VAGINAL 3 ANNE ARUNDEL
 VAGINAL 2 MONTGOMERY
 VAGINAL 2 PRINCE GEORGE'S
 VAGINAL 5 PRINCE GEORGE'S
 STREPTOCOCCUS ORALIS
 CSF 1 BALTIMORE CITY
 STREPTOCOCCUS, VIRIDANS GROUP
 BLOOD 4 BALTIMORE CITY

TOTAL 54

SEXUALLY TRANSMITTED DISEASES

GENUS SPECIES
 SEX # JURISDICTION

SYPHILIS SEROLOGY
 F 3 ANNE ARUNDEL
 M 2 ANNE ARUNDEL
 F 2 BALTIMORE
 M 6 BALTIMORE
 F 17 BALTIMORE CITY
 M 30 BALTIMORE CITY
 U 6 BALTIMORE CITY
 M 2 HARFORD
 F 1 HOWARD
 F 3 MONTGOMERY
 M 9 MONTGOMERY
 F 15 PRINCE GEORGE'S
 M 25 PRINCE GEORGE'S
 U 2 PRINCE GEORGE'S
 F 1 WASHINGTON
 M 4 WASHINGTON

TOTAL 128

CHLAMYDIA TRACHOMATIS

F 5 ALLEGANY
 M 2 ALLEGANY
 F 22 ANNE ARUNDEL
 M 7 ANNE ARUNDEL
 U 1 ANNE ARUNDEL
 F 23 BALTIMORE
 M 7 BALTIMORE
 F 8 BALTIMORE CITY
 M 26 BALTIMORE CITY
 U 1 BALTIMORE CITY
 F 2 CALVERT
 F 1 CAROLINE
 F 4 CARROLL
 M 2 CARROLL
 F 2 CECIL
 M 2 CECIL
 F 12 CHARLES
 M 10 CHARLES
 F 3 DORCHESTER
 M 1 DORCHESTER
 F 4 FREDERICK
 M 2 FREDERICK
 F 1 GARRETT

F 10 HARFORD
 M 5 HARFORD
 F 5 HOWARD
 F 3 KENT
 M 2 KENT
 F 15 MONTGOMERY
 M 7 MONTGOMERY
 F 45 PRINCE GEORGE'S
 M 56 PRINCE GEORGE'S
 F 3 QUEEN ANNE'S
 M 2 SAINT MARY'S
 F 2 SOMERSET
 M 4 SOMERSET
 F 3 TALBOT
 M 2 TALBOT
 F 2 WASHINGTON
 M 2 WASHINGTON
 F 24 WICOMICO
 M 4 WICOMICO
 U 1 WICOMICO
 F 3 WORCESTER
 M 5 WORCESTER

TOTAL 353

NEISSERIA GONORRHOEAE

F 1 ANNE ARUNDEL
 F 3 BALTIMORE
 M 3 BALTIMORE
 F 1 BALTIMORE CITY
 M 1 CALVERT
 M 1 CAROLINE
 F 1 CARROLL
 M 1 CARROLL
 F 3 CHARLES
 M 2 CHARLES
 F 1 DORCHESTER
 F 3 MONTGOMERY
 M 3 MONTGOMERY
 F 10 PRINCE GEORGE'S
 M 17 PRINCE GEORGE'S
 F 1 SAINT MARY'S
 M 2 SAINT MARY'S
 F 3 WICOMICO
 M 7 WICOMICO

TOTAL 64

MYCOBACTERIOLOGY

ISOLATE
 SEX AGE # JURISDICTION

ACID-FAST BACILLUS
 M 62 1 BALTIMORE CITY
 F 38 1 OUT OF STATE
 M 41 1 PRINCE GEORGE'S
 AEROBIC ACTINOMYCETE
 M 57 1 BALTIMORE
 M 41 2 HARFORD
 MYCOBACTERIUM ABSCESSUS
 F 86 1 FREDERICK
 U 0 1 UNKNOWN
 F 0 1 UNKNOWN
 MYCOBACTERIUM AVIUM COMPLEX
 F 81 1 ANNE ARUNDEL
 M 68 1 ANNE ARUNDEL
 F 58 3 BALTIMORE
 F 64 2 BALTIMORE
 F 70 1 BALTIMORE

F	77	1	BALTIMORE
M	51	1	BALTIMORE
M	63	2	BALTIMORE
M	81	1	BALTIMORE
F	60	1	BALTIMORE CITY
M	47	3	BALTIMORE CITY
M	48	1	BALTIMORE CITY
M	72	1	BALTIMORE CITY
M	67	3	FREDERICK
M	85	1	OUT OF STATE
U	0	1	UNKNOWN
F	78	1	WASHINGTON
M	80	1	WICOMICO
MYCOBACTERIUM BOVIS			
M	36	1	OUT OF STATE
MYCOBACTERIUM CHELONAE			
F	0	2	UNKNOWN
MYCOBACTERIUM FORTUITUM			
U	0	1	UNKNOWN
M	0	1	UNKNOWN
MYCOBACTERIUM FORTUITUM COMPLEX			
F	72	2	BALTIMORE
M	40	2	BALTIMORE
F	51	1	BALTIMORE CITY
M	62	1	BALTIMORE CITY
M	46	1	MONTGOMERY
F	51	1	OUT OF STATE
M	66	3	OUT OF STATE
M	66	1	WASHINGTON
M	72	1	WICOMICO
M	73	1	WICOMICO
MYCOBACTERIUM GORDONAE			
F	81	1	ANNE ARUNDEL
M	61	1	CARROLL
F	65	1	HARFORD
M	23	1	HARFORD
M	46	1	MONTGOMERY
F	45	1	PRINCE GEORGE'S
F	84	1	PRINCE GEORGE'S
U	0	1	UNKNOWN
F	0	2	UNKNOWN
M	74	1	WICOMICO
MYCOBACTERIUM KANSASII			
M	50	4	BALTIMORE
M	51	1	BALTIMORE CITY
U	0	1	UNKNOWN
MYCOBACTERIUM MARINUM			
M	59	1	CALVERT
U	0	1	UNKNOWN
MYCOBACTERIUM TUBERCULOSIS			
F	29	1	BALTIMORE
F	63	1	BALTIMORE
F	18	1	BALTIMORE CITY
F	66	1	BALTIMORE CITY
M	79	1	CHARLES
M	44	1	FREDERICK
F	61	1	HOWARD
F	21	1	MONTGOMERY
M	78	1	OUT OF STATE
U	0	1	UNKNOWN
MYCOBACTERIUM TUBERCULOSIS COMPLEX			
F	29	3	BALTIMORE
F	66	2	BALTIMORE
F	18	2	BALTIMORE CITY
F	36	1	BALTIMORE CITY
F	74	1	BALTIMORE CITY
F	83	1	BALTIMORE CITY
M	79	4	CHARLES
F	39	2	HOWARD
F	61	1	HOWARD
M	46	1	MONTGOMERY

M	53	1	MONTGOMERY
F	25	3	PRINCE GEORGE'S
M	33	1	PRINCE GEORGE'S
M	41	2	PRINCE GEORGE'S
M	93	1	SAINT MARY'S
U	0	1	UNKNOWN
MYCOBACTERIUM XENOPI			
M	68	1	BALTIMORE
NON-PHOTOCHROMOGENIC MYCOBACTERIA			
M	17	1	OUT OF STATE
SCOTOCHROMOGENIC MYCOBACTERIA			
F	38	1	OUT OF STATE
TOTAL 113			

MYCOBACTERIUM SUSCEPTIBILITY RESULTS

10 ISOLATES IDENTIFIED

2 DRUG RESISTANT STRAINS FOUND

#	JURISDICTION	DRUG(S)
1	PRINCE GEORGE'S	ISONIAZID, STREPTOMYCIN
1 ^B	ANNE ARUNDEL	PYRAZINAMIDE

^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:

<i>M. tuberculosis</i>	<i>M. africanum</i>
<i>M. bovis</i>	<i>M. microti</i>
<i>M. bovis, BCG</i>	<i>M. canettii</i>

PARASITOLOGY

GENUS/SPECIES	#	JURISDICTION
---------------	---	--------------

BLASTOCYSTIS HOMINIS

1	HOWARD
1	MONTGOMERY

ENDOLIMAX NANA

3	FREDERICK
2	HOWARD
2	MONTGOMERY
3	MONTGOMERY

ENTAMOEBAS COLI

1	HOWARD
2	PRINCE GEORGE'S
1	MONTGOMERY
2	PRINCE GEORGE'S

ENTAMOEBAS HARTMANNI

1	CARROLL
---	---------

ENTEROBIUS VERMICULARIS

2	PRINCE GEORGE'S
---	-----------------

GIARDIA LAMBLIA

1	PRINCE GEORGE'S
---	-----------------

HOOKWORM

1	HOWARD
---	--------

IODAMOEBAS BÜTSCHLI

2	MONTGOMERY
---	------------

PLASMODIUM FALCIPARUM

1	OUT OF STATE
1	BALTIMORE CITY
3	ANNE ARUNDEL
1	ANNE ARUNDEL

TOTAL 31

FOOD PROTECTION

TOTALS

FOOD

NUMBER OF SAMPLES	41
NOTABLE PATHOGENS:	
<i>CAMPYLOBACTER SP.</i>	0
<i>CLOSTRIDIUM DIFFICILE</i>	0
<i>ENTEROCOCCUS</i>	0
<i>E. COLI</i>	0
<i>E. FAECALIS</i>	0
<i>LISTERIA SP.</i>	0
MRSA	0
<i>SALMONELLA SP.</i>	0
VRE	0

CRABMEAT

NUMBER OF SAMPLES	6
EXCEEDING STANDARDS ¹	0
NOTABLE PATHOGENS:	
<i>LISTERIA INNOCUA</i>	0

SHELLFISH

NUMBER OF SAMPLES	3
EXCEEDING STANDARDS ²	0

TOTAL STANDARDS EXCEEDED 0

SHELLFISH GROWING WATERS

NUMBER OF SAMPLES	358
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TOTAL NUMBER OF SAMPLES 408

STANDARDS

¹CRABMEAT FRESH

ESCHERICHIA COLI AT < 36 MPN/100 GRAMS
STANDARD PLATE COUNT AT < 100

²SHELLFISH

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

WATER MICROBIOLOGY

	# TESTED	# NON-COMPLIANT
COMMUNITY	11	1
NON-COMMUNITY	528	150
TOTAL	539	151

VIRUS ISOLATION

ISOLATE			
SEX	AGE	#	JURISDICTION
HERPES SIMPLEX VIRUS TYPE 1			
F	45	1	BALTIMORE CITY
INFLUENZA B VIRUS			
M	17	1	BALTIMORE CITY
M	16	1	BALTIMORE CITY
F	17	1	BALTIMORE CITY
F	16	1	BALTIMORE CITY
F	17	1	BALTIMORE CITY
PARAINFLUENZA VIRUS 3			
F	0	1	HOWARD
TOTAL		7	

VIRAL POLYMERASE CHAIN REACTION (PCR)

ISOLATE			
SEX	AGE	#	JURISDICTION
ENTEROVIRUS			
F	30	1	BALTIMORE
HERPES SIMPLEX VIRUS TYPE 1			
F	26	1	ALLEGANY
F	17	1	BALTIMORE
F	22	2	BALTIMORE CITY
F	25	1	BALTIMORE CITY
M	22	1	BALTIMORE CITY
M	43	1	BALTIMORE CITY
F	17	1	CALVERT
F	40	1	CALVERT
F	24	1	CARROLL
M	22	1	HARFORD
F	26	1	MONTGOMERY
F	22	1	PRINCE GEORGE'S
F	23	1	PRINCE GEORGE'S
F	25	1	SAINT MARY'S
F	20	1	WICOMICO
HERPES SIMPLEX VIRUS TYPE 2			
F	21	1	BALTIMORE
U	54	1	BALTIMORE CITY
F	0	1	BALTIMORE CITY
F	20	3	BALTIMORE CITY
F	27	1	BALTIMORE CITY
F	29	1	BALTIMORE CITY
F	42	1	BALTIMORE CITY
F	46	1	BALTIMORE CITY
F	52	1	BALTIMORE CITY
M	0	2	BALTIMORE CITY
M	20	2	BALTIMORE CITY
M	22	1	BALTIMORE CITY
M	23	1	BALTIMORE CITY
M	25	1	BALTIMORE CITY
M	27	1	BALTIMORE CITY
M	29	2	BALTIMORE CITY
M	31	1	BALTIMORE CITY
M	33	1	BALTIMORE CITY
M	35	1	BALTIMORE CITY
M	45	1	BALTIMORE CITY
F	19	1	CALVERT
M	28	1	FREDERICK
M	36	1	KENT
F	54	1	MONTGOMERY
F	55	1	MONTGOMERY
M	26	1	MONTGOMERY
U	28	1	PRINCE GEORGE'S

F	16	1	PRINCE GEORGE'S
F	17	1	PRINCE GEORGE'S
F	26	1	PRINCE GEORGE'S
F	33	1	PRINCE GEORGE'S
F	38	1	PRINCE GEORGE'S
M	20	1	PRINCE GEORGE'S
M	40	1	PRINCE GEORGE'S
M	42	1	PRINCE GEORGE'S
M	27	1	SAINT MARY'S
F	17	1	WASHINGTON
U	19	1	WICOMICO
F	22	1	WICOMICO
INFLUENZA B VIRUS			
F	16	1	BALTIMORE CITY
F	17	2	BALTIMORE CITY
M	16	2	BALTIMORE CITY
M	17	2	BALTIMORE CITY

TOTAL 68

VIRAL HEPATITIS

ORGANISM	# SPECIMENS		JURISDICTION
	#	POSITIVES	
HEPATITIS A			
	1	0	ANNE ARUNDEL
	1	0	CARROLL
	3	0	PRINCE GEORGE'S
SUBTOTAL	5	0	
HEPATITIS B			
	63	1	ALLEGANY
	162	1	ANNE ARUNDEL
	58	1	BALTIMORE
	369	6	BALTIMORE CITY
	8	0	CALVERT
	17	0	CARROLL
	135	0	CECIL
	4	0	CHARLES
	37	0	FREDERICK
	9	0	GARRETT
	36	0	HARFORD
	21	0	HOWARD
	1	0	KENT
	330	6	MONTGOMERY
	1	1	OUT OF STATE
	332	8	PRINCE GEORGE'S
	2	0	QUEEN ANNE'S
	5	0	SAINT MARY'S
	16	0	TALBOT
	50	0	WASHINGTON
	56	0	WICOMICO
SUBTOTAL	1,712	24	
HEPATITIS C			
	55	6	ALLEGANY
	184	26	ANNE ARUNDEL
	69	7	BALTIMORE
	225	40	BALTIMORE CITY
	8	2	CALVERT
	1	0	CAROLINE
	20	4	CARROLL
	75	6	CECIL

7	0	CHARLES
41	1	FREDERICK
12	0	GARRETT
89	4	HARFORD
11	0	HOWARD
2	0	KENT
51	0	MONTGOMERY
153	8	PRINCE GEORGE'S
2	0	QUEEN ANNE'S
3	0	SAINT MARY'S
16	2	TALBOT
27	1	WASHINGTON
12	1	WICOMICO

SUBTOTAL 1,063 108

TOTALS 2,780 132

RABIES

SOURCE	#	JURISDICTION
BAT	3	ANNE ARUNDEL
	2	BALTIMORE CITY
	1	CAROLINE
	1	FREDERICK
	2	MONTGOMERY
CAT	2	PRINCE GEORGE'S
	1	WICOMICO
	1	ALLEGANY
	1	BALTIMORE
	1	WASHINGTON
COW	1	KENT
	2	CARROLL
FOX	1	PRINCE GEORGE'S
	1	SOMERSET
RACCOON	1	ANNE ARUNDEL
	3	BALTIMORE CITY
	1	CALVERT
	1	CHARLES
	3	FREDERICK
	6	MONTGOMERY
1	PRINCE GEORGE'S	
1	QUEEN ANNE'S	
1	TALBOT	
2	WICOMICO	

TOTAL POSITIVES 40

TOTAL SPECIMENS 679

CHLAMYDIOPHILIA PSITTACI (CHLAMYDIA)

REPORTED QUARTERLY
NO REPORT THIS MONTH

CD4 FLOW CYTOMETRY WORKLOAD

REPORTED QUARTERLY
NO REPORT THIS MONTH

**NEWBORN & CHILDHOOD SCREENING
PRESUMPTIVE POSITIVES**

DISORDERS	#
PHENYLKETONURIA (PKU)	5
MAPLE SYRUP URINE DISEASE (MSUD)	5
HOMOCYSTINURIA	15
TYROSINEMIA	9
ARGININEMIA	0
CITRULLINEMIA	0
GALACTOSEMIA	2
BIOTINIDASE DEFICIENCY	5
HYPOTHYROIDISM	64
HEMOGLOBIN -DISEASE	11
HEMOGLOBIN -BENIGN	548
CONGENITAL ADRENAL HYPERPLASIA (CAH)	23
CYSTIC FIBROSIS	1
FATTY ACID OXIDATIONS	4
ORGANIC ACIDEMIAS	8
ACYLCARNITINE - BORDERLINE	8
ACYLCARNITINE - OTHERS	0
MONTHLY TOTALS	
# OF SPECIMENS SCREENED	13,038
NUMBER OF TESTS	956,369
% UNSATISFACTORY SPECIMENS	1.6

2010 YEAR-TO-DATE CONFIRMED CASES

CONDITIONS	# CONFIRMED
MEDIUM CHAIN ACYL-CoA DEHYDROGENASE DEFICIENCY (MCAD)	2
SHORT CHAIN ACYL-CoA DEHYDROGENASE DEFICIENCY (SCAD)	9
ELEVATED FORMIMINOGLUTAMIC ACID (FIGLU)	1
3-METHYLCROTONYL-COA CARBOXYLASE DEFICIENCY (3-MCC)	3
METHYLMALONIC ACIDEMIA (MMA)	1
GLUTARIC ACIDURIA TYPE 1 (GA-1)	1
BRANCHED CHAIN KETOACIDOSIS (BCK/MSUD)	1
GALACTOSE EPIMERASE DEFICIENCY	1
GALACTOSEMIA - VARIANT -DG	3
GALACTOSEMIA - UNKNOWN VARIANT	1
PARTIAL BIOTINIDASE DEFICIENCY	2
PROBABLE BIOTINIDASE CARRIER	2
PROBABLE GN	2
CONGENITAL ADRENAL HYPERPLASIA-SALT WASTING	2
CONGENITAL ADRENAL HYPERPLASIA-UNCLASSIFIED	1
HYPOTHYROIDISM - PRIMARY	16
OTHER HYPOTHYROIDISM	9
TBG DEFICIENCY	8
SICKLE CELL DISEASE -SS	35
SICKLE CELL DISEASE -SC	24
SICKLE CELL DISEASE -S BETA THALASSEMIA	4
SICKLE CELL DISEASE- BETA 0 THALASSEMIA	1
SICKLE CELL DISEASE-SV	1
SICKLE CELL TRAIT	1
HEMOGLOBIN VARIANT	1
CYSTIC FIBROSIS	4
CFTR-RELATED METABOLIC SYNDROME (CRMS)	1
TRANSIENT TYROSINEMIA	5

ENVIRONMENTAL CHEMISTRY

SAMPLE TYPES	# NON-COMPLIANT	# TESTED
ASBESTOS		
AIR	0	0
BULK	3	5
AIR QUALITY		
PM 2.5	0	336
RADIATION		
AIR/CHARCOAL FILTERS	0	64
MILK	0	0
WIPES	0	39
RAW WATER	0	8
VEGETATION	0	0
OTHER	0	0
DRINKING WATER		
METALS		
COMMUNITY	13	28
NON-COMMUNITY	8	15
PRIVATE WELLS	15	156
PESTICIDES & PCBs		
COMMUNITY	5	53
NON-COMMUNITY	0	48
PRIVATE WELLS	0	13
VOLATILE ORGANIC COMPOUNDS		
COMMUNITY	5	118
NON-COMMUNITY	1	71
PRIVATE WELLS	0	58
RADIATION		
COMMUNITY	0	12
NON-COMMUNITY	0	11
PRIVATE WELLS	0	18
INORGANICS		
COMMUNITY	0	47
NON-COMMUNITY	4	43
PRIVATE WELLS	2	212
FOOD CHEMISTRY		
SUSPECTED TAMPERING	0	12
MICROSCOPIC FILTH	0	3
LABELING	0	0
SURVEILLANCE	0	11
CHEMICAL CONTAMINATION	0	0
TOTAL	56	1,381

VIRAL LOAD SPECIMENS

HIV-1 RNA COPIES/ML	<10 ³	10 ³ –10 ⁴	10 ⁴ –10 ⁵	>10 ⁵	TOTALS
ALLEGANY	14	0	1	0	15
CARROLL	1	0	0	0	1
MONTGOMERY	71	11	6	0	88
PRINCE GEORGE'S	107	14	6	6	133
WASHINGTON	9	0	0	0	9
WICOMICO	2	0	1	0	3
SUBTOTALS	204	25	14	6	249
DEPT. OF CORRECTIONS	7	0	0	0	7
TOTALS	211	25	14	6	256

HIV ANTIBODY SCREENING

SUBMITTER	TOTAL SPECIMENS	# EIA POSITIVE	% EIA POSITIVE	# WB POSITIVE	% WB POSITIVE
CORRECTION FACILITY JUVENILE	89	1	1.12%	0	0.00%
CORRECTIONAL INSTITUTIONS	218	0	0.00%	0	0.00%
FAMILY PLANNING (NON-GOVERNMENT)	132	0	0.00%	0	0.00%
HEALTH CENTERS (NON-GOVERNMENT)	384	28	7.29%	28	100.00%
HLTH DEPT, NON-STD, FAMILY PLANNING	438	2	0.46%	0	0.00%
HLTH DEPT, NON-STD, OB/GYN	88	1	1.14%	1	100.00%
HLTH DEPT, NON-STD, OTHER	637	50	7.85%	49	98.00%
HLTH DEPT, STD CLINICS	1,025	12	1.17%	8	66.67%
HOSPITAL, OTHER	111	7	6.31%	7	100.00%
HOSPITAL, PUBLIC	39	2	5.13%	2	100.00%
LABORATORIES (NON-HOSPITAL)	321	14	4.36%	6	42.86%
PEDIATRIC - CHILD HEALTH	8	0	0.00%	0	0.00%
PRIVATE STUDENT HEALTH CTRS	22	0	0.00%	0	0.00%
PUBLIC STUDENT HEALTH CTRS	27	0	0.00%	0	0.00%
TOTALS	3,539	117	3.31%	101	86.32%



MAILING LABEL

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