



STATE OF MARYLAND

DHMH

Maryland Department of Health and Mental Hygiene

Martin O'Malley, Governor – Anthony G. Brown, Lt. Governor – Laura Herrera Scott, MD, MPH, Acting Secretary

January 20, 2015

The Honorable Martin O'Malley
Governor
State of Maryland
Annapolis, MD 21401-1991

The Honorable Joan Carter Conway
Chair, Senate Education, Health, and
Environmental Affairs Committee
2 West Miller Senate Building
Annapolis, MD 21401

The Honorable Peter A. Hammen
Chair, House Health and
Government Operations Committee
Room 241 House Office Building
Annapolis, MD 21401

RE: 2014 DHMH Activities - Implementation of Hepatitis B and Hepatitis C Prevention and Control in Maryland under Health-General Article, §18-1001

Dear Governor O'Malley, Chair Carter Conway, and Chair Hammen:

Health-General Article §18-1002 requires the Department of Health and Mental Hygiene (the Department) to annually inform the Governor and the General Assembly about its activities relating to the prevention and control of hepatitis B (HBV) and hepatitis C (HCV) infection in Maryland. The attached is a report of the Department's activities in 2014 related to HBV and HCV prevention and control in Maryland.

I hope this information is helpful. If you have any questions or comments concerning the report, please contact Ms. Allison Taylor, Director, Office of Governmental Affairs at (410) 767-6481.

Sincerely,

Laura Herrera Scott, MD, MPH
Acting Secretary

Enclosure

cc: Rianna Matthews-Brown, Chief of Staff
Allison Taylor, Director, Office of Governmental Affairs
Michelle Spencer, Director, Prevention and Health Promotion Administration
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Prevention and Health Promotion Administration

**2014 Annual Report
Implementation of Hepatitis B and Hepatitis C
Prevention and Control in Maryland
Health-General Article §18-1002**

**Martin O'Malley
Governor**

**Anthony G. Brown
Lieutenant Governor**

**Laura Herrera Scott, MD, MPH
Acting Secretary**

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I. Background

Hepatitis B Virus and Hepatitis C Virus Infections in the United States

Hepatitis B Virus (HBV) and Hepatitis C Virus (HCV) infections pose substantial public health problems in the United States (U.S.) and are major causes of chronic liver disease. Three to five times more people are living with chronic HBV and HCV infections than with Human Immunodeficiency Virus (HIV) infection.¹ HCV is transmitted via direct exposure to infectious blood.² Other sources of HCV infection include sexual, hemodialysis, occupational, and perinatal exposures.

An estimated 1% of the U.S. population (approximately 2.7 M people) is chronically infected with HCV.³ This figure does not include populations disproportionately impacted by HCV (e.g. incarcerated or homeless persons), and may significantly underestimate the number of persons currently living with infection. While effective diagnostic tests and treatments for HCV infection are available, more than half of HCV-infected persons are unaware of their infection; only 7-11% of infected persons are treated, and only 5-6% of those are cured.^{4,5}

HCV disproportionately impacts racial/ethnic minorities, persons of low socioeconomic status, persons who inject drugs, and persons born between 1945 and 1965. HCV infection is two to three times more prevalent among African Americans than Caucasians, and African American rates of HCV are twice the national average.⁶ The highest risk of HCV infection is in urban settings among injection drug users and persons attending sexually transmitted infection clinics.⁷ It is estimated that 50-90% of injection drug users infected with HIV are also infected with HCV.⁸

An estimated 700,000-1.4 M people are living with HBV infections in the United States. HBV infection is spread from mother to child at the time of birth, and as a consequence of incidental exposures to infected blood, injection drug use, or sexual contact.

HBV infection is 50-100 times more easily transmitted than HIV.⁹ According to the Centers for Disease Control and Prevention (CDC), acute HBV infection in adults, although often

¹ "Hepatitis and liver cancer: a National Strategy for Prevention and Control of Hepatitis B and C," 2010, Institute of Medicine, 20 October 2014, <<http://www.cdc.gov/hepatitis/pdfs/iom-hepatitisandlivercancerreport.pdf>>

² Holmberg SD, et al., "Hepatitis C in the United States," *New England Journal of Medicine*, 368(2013):1859-61, 20 October 2014, <<http://www.nejm.org/doi/pdf/10.1056/NEJMp1302973>>

³ Denniston MM, et al., "Chronic Hepatitis C Virus Infection in the United States, National Health and Nutrition Examination Survey 2003 to 2010," *Annals of Internal Medicine*, 160(2014):293-300, *American College of Physicians*, 20 October 2014, <<http://annals.org/article.aspx?articleid=1834167>>

⁴ Denniston MM, et al., "Awareness of Infection, Knowledge of Hepatitis C, and Medical Follow-up among individuals testing positive for Hepatitis C: National Health and Nutrition Examination Survey 2001-2008," *Hepatology*, 55(2012):1652-61, PubMed, 20 October 2014, <<http://www.ncbi.nlm.nih.gov/pubmed/22213025>>

⁵ *Id* fn 2.

⁶ *Id* fn1.

⁷ Klevens RM, et al., "Evolving Epidemiology of Hepatitis C Virus in the United States," *Clinical Infectious Diseases*, 55(2012):S3-S9, *Oxford Journals*, 20 October 2014, <http://cid.oxfordjournals.org/content/55/suppl_1/S3.full>

⁸ HIV/AIDS and Viral Hepatitis, 6 March 2014, Centers for Disease Control and Prevention, 20 October 2014, <<http://www.cdc.gov/hepatitis/Populations/hiv.htm>>

⁹ "Hepatitis B and Sexual Health," October 2013, Centers for Disease Control and Prevention. 20 October 2014, <<http://www.cdc.gov/hepatitis/HBV/PDFs/HepBSexualHealth.pdf>>.

asymptomatic, can cause severe illness, and in rare cases can result in death from liver failure. Chronic HBV infection, which occurs when the acute infection is not cleared by the immune system, is associated with a 15-25% risk of premature death from liver cancer or end-stage liver disease.¹⁰

Almost half of the liver transplantations in the United States are necessitated by end-stage liver disease associated with HBV or HCV infection.¹¹ HCV infection is the leading cause of liver transplants in the United States. Because HBV and HCV infections can persist for decades without symptoms, 65-75% of infected people living in the United States remain unaware of their infection because, despite progressive liver damage, they are not tested for the virus.^{12,13}

Hepatitis B Virus and Hepatitis C Virus Infections in Maryland

Applying national estimates to Maryland, there are likely 47,000-73,000 people in the State who have been infected with HCV during their lifetime.¹⁴ In 2012, the reported acute HCV infection case rate in Maryland was 0.7 per 100,000 residents; that same year there were 39 reported cases of acute symptomatic HCV, and 7,955 reported cases of chronic HCV (“past or present”). Within Maryland, the majority of reported HCV cases are among residents of Baltimore City and Baltimore County. During 2012, these two jurisdictions had the highest number of reported cases (3,149 cases in Baltimore City and 1,253 cases in Baltimore County), representing 55% of HCV cases reported in the State.¹⁵ Assuming equal distribution of unreported/undiagnosed cases, an estimated 26,000-40,000 persons have chronic HCV infection in Baltimore City and Baltimore County.

While limited local epidemiological data are available to measure and describe population-level HCV infection in Baltimore City and Baltimore County, available clinical data demonstrate high numbers and rates of HCV infection. Data from Maryland’s Medicaid Management Information System, which includes claims and encounter data for individuals enrolled in the Maryland Medicaid Program, indicate high numbers of HCV infections among Medicaid enrollees in Baltimore City and Baltimore County. During fiscal year 2013, 10,268 unduplicated Medicaid enrollees in these jurisdictions had at least one HCV diagnosis (8,247 in Baltimore City and 2,021 in Baltimore County). In Baltimore City, 76% of Medicaid enrollees with an HCV diagnosis during fiscal year 2014 were African American, and 90% were 40-64 years of age.¹⁶ Clinic data from the Baltimore City Health Department sexually transmitted infection clinic show that among 2,533 patients tested during the first nine months of the project, 6.9% were positive for HCV antibody. The heaviest burden of HCV antibody positivity was among those who had ever used injection drugs (prevalence of 83%) and individuals born between 1945 and

¹⁰ *Id* fn 1.

¹¹ Kim, WR et al, “Trends in waitlist registration for liver transplantation for viral hepatitis in the US,” *Gastroenterology* 137(2009):1608-1686, PubMed, 20 October 2014, <<http://www.ncbi.nlm.nih.gov/pubmed/19632234>>.

¹² Lin, SY, et al., “Why we should routinely screen Asian Americans adults for hepatitis B: A cross-sectional study of Asians in California,” *Hepatology*, 46(2207):1034-1040, PubMed, 20 October 2014, <<http://www.ncbi.nlm.nih.gov/pubmed/17654490>>.

¹³ Hagan, H et al, “Self-reported hepatitis C virus antibody status and risk behavior in young injectors,” *Public Health Reports*, 121(2006):710-719, PubMed, <<http://www.ncbi.nlm.nih.gov/pubmed/17278406>>.

¹⁴ *Id* fn 2.

¹⁵ Maryland Department of Health and Mental Hygiene, Maryland National Electronic Disease Surveillance System.

¹⁶ Maryland Department of Health and Mental Hygiene, Maryland Medicaid Management Information System.

1965 (prevalence of 29%). Of the 175 patients who were HCV antibody positive, 141 received follow-up HCV RNA testing. Of those that received follow-up, 80% were determined to be chronically infected with HCV.¹⁷

Injection drug users are at high risk for HCV infection; evidence indicates that HCV infection occurs shortly after individuals initiate injecting illicit drugs.¹⁸ Maryland has a disproportionately high number of injecting heroin users compared to other states.¹⁹ Many Marylanders living with the HCV infection could be asymptomatic and unaware of their infection because HCV often does not cause symptoms until late in the progression of the disease.

In 2012, 52 cases of acute symptomatic HBV infection and 39 cases of acute symptomatic HCV infection were reported to the Maryland Department of Health and Mental Hygiene (DHMH).²⁰ Both chronic and acute symptomatic HBV infections are reportable to local health departments by healthcare providers and medical laboratories operating in Maryland.

In 2012, the reported acute HBV infection case rate in Maryland was 0.9 per 100,000 residents. Acute HBV infection rates across Maryland are the surveillance indicators available that guide efforts to coordinate public health interventions. In 2012, Baltimore City's acute HBV infection rate was 0.6 per 100,000, down from 2.4 per 100,000 in 2011, and less than the rate of 0.9 which is the average for Maryland as noted above.²¹

DHMH's comprehensive and systematic approaches to eliminate HBV in communities throughout the State have resulted in successful outcomes as evidenced by the reduction of case rates of acute hepatitis B. DHMH's multi-faceted program approach to eliminate HBV in Maryland communities includes:

- Maintenance of universal HBV childhood vaccination, supported by the Vaccines for Children Program for eligible children/families, which continues to ensure infants and children receive appropriate vaccination services.
- Management of HBV infected pregnant women to prevent maternal transmission of HBV infection to the baby.
- Implementation of HBV screening and vaccination program services for at-risk populations to prevent HBV transmission, and reach vulnerable populations disproportionately impacted by HBV, such as Asian Americans.

These combined targeted efforts have proven successful and effective in reaching at-risk populations and contributed to reductions in the rates of acute hepatitis B cases in Maryland.

¹⁷ "HCV testing and treatment data," Johns Hopkins University and Baltimore City Health Department (unpublished).

¹⁸ Thomas DL et al., "Correlates of Hepatitis C Virus Infections among Injection Drug Users," *Medicine*, 74(1995):212-20, PubMed, <<http://www.ncbi.nlm.nih.gov/pubmed/7623656>>.

¹⁹ "Outlook and Outcomes FY 2012," Maryland Department of Health and Mental Hygiene, 20 October 2014, <http://adaa.dhmh.maryland.gov/Documents/content_documents/OandO/FY12OandO_6.pdf>.

²⁰ Cases of Selected Notifiable Conditions Reported in Maryland (2012), 19 December 2013, Maryland Department of Health and Mental Hygiene, <<http://phpa.dhmh.maryland.gov/SitePages/disease-conditions-count-rates.aspx>>.

²¹ *Id* fn 25.

II. 2014 DHMH Hepatitis B Virus and Hepatitis C Virus Infection Activities

DHMH continues to implement the recommendations of the Hepatitis C Advisory Council, which was created in 2003 to review and recommend changes to the Maryland Hepatitis C Prevention and Control Plan and to solicit funds or grants to implement the plan.²² Further, DHMH continues to work with public and private and community partners to maximize resources in the implementation of the identified activities. Activities conducted in 2014 are described below.

In 2014, DHMH partnered with the Baltimore City Health Department, Johns Hopkins University, and the Baltimore County Health Department to successfully obtain from the CDC an additional \$1.2 M per year for four years to extend HCV testing and treatment program efforts in Baltimore City and Baltimore County. This new program, Community-Based Programs to Test and Cure Hepatitis C, will provide resources for extensive training for primary care providers to learn state-of-the-art HCV medical treatment which cures patients of HCV infection. Additional details regarding this initiative are included in Section III of this report.

Utilization of Federally-funded Staff Positions

DHMH completed the second year of a three-year Viral Hepatitis Prevention Program Cooperative Agreement with the CDC. The cooperative agreement provides funding for one full-time Viral Hepatitis Prevention Program Services staff position. The Viral Hepatitis Prevention Coordinator's role is to manage and coordinate programs to improve the delivery of HBV and HCV infection prevention services in healthcare settings and public health programs in Maryland. The Viral Hepatitis Prevention Coordinator promotes and coordinates partnerships for HBV and HCV infection activities, provides technical assistance regarding HBV and HCV infection, and participates in collaborative groups to enhance the provision of HBV and HCV infection programs and services. The Viral Hepatitis Prevention Coordinator also:

- Provides technical assistance and expert nursing consultation to healthcare facilities, public health agencies, local health departments, state agencies, and healthcare providers. Technical assistance topics include: prevention of HBV and HCV infection transmission, infection control, compliance with laws and regulations, where to access available resources, and community outreach related to integrated testing services for HBV and HCV infection and HIV.
- Provides administrative and technical support to the Maryland Hepatitis Coalition (Coalition). The Coalition is a community group that works to establish and maintain linkages with community-based organizations and treatment sites including HBV and HCV infection clinical trials. Coalition members provide recommendations, guidance, and feedback to inform the Maryland Viral Hepatitis Prevention Program.
- Participates with Hepatitis B United, serving as one of three co-chairs with a physician and the director of a community-based organization. Hepatitis B United is a community

²² Report on the State Advisory Council on Hepatitis C, January 2006, Maryland Department of Health and Mental Hygiene, <<http://phpa.dhmmh.maryland.gov/OIDPCS/AVHPP/AVHPP%20Documents/MACHCRptFnIE.pdf>>

initiative focused on efforts to eliminate HBV in communities throughout the State, especially in Asian and Asian-American populations.

- Serves as the DHMH representative to public and private sector agencies to promote the integration of HBV and HCV prevention and treatment services into existing programs. The Viral Hepatitis Prevention Coordinator educates professionals about HBV and HCV infections, attends workgroup meetings with personnel from the sexually transmitted infections, HIV, and tuberculosis statewide programs, and the Baltimore City Health Department, and participates in Department of Public Safety and Correctional Services (DPSCS) and National Alliance of State and Territorial AIDS Directors Viral Hepatitis meetings, workgroups, and conference calls.

In November 2013, another federally-funded staff position, Project Coordinator of the Hepatitis B Vaccination Pilot Program, was added to support DHMH's HBV and HCV infection prevention and control activities. During 2014, the Hepatitis B Vaccination Project Coordinator supported HBV vaccination services for 13 local health departments and community-based organizations that provide HBV vaccination services at 43 different sites/locations. This initiative reaches across racially and ethnically diverse populations that are disproportionately impacted by HBV and HCV. Over 5,110 vaccinations were provided to individuals at-risk for HBV and HCV infection in the State.

Implementation of the CDC-funded Hepatitis B Vaccination Pilot Program

This program increased the availability of HBV vaccine throughout the State by providing funding for DHMH to purchase 14,500 doses of HBV vaccine for at-risk vulnerable populations. This successful program has been extended through September 29, 2015. Ten local health departments participate in the program, and most local health departments are vaccinating in multiple settings, including sexually transmitted infection, HIV, substance abuse programs, and immunization clinics, federally qualified health centers, and detention centers. In addition, three community-based organizations participate in this project, two of which provide vaccinations in multiple settings. Clients are screened for HBV infection, and susceptible individuals are vaccinated. Individuals identified with HBV infection are linked to medical care for follow-up medical evaluation and treatment. Hepatitis screening and education are provided to individuals from different ethnic backgrounds including African-American, Burmese, Chinese, Hispanic, Korean, Middle Eastern, and Vietnamese. These initiatives span multiple jurisdictions including Baltimore, Frederick, Howard, Montgomery, and Prince George's Counties, and Baltimore City. The participating community-based organizations that target Asian-American populations have used other funding sources to educate, screen, and test over 1,500 at-risk individuals for HBV infection. Approximately 71 individuals have been identified with HBV infection, and have been linked to medical care and treatment. Individuals who are screened and identified as needing vaccination are provided HBV vaccine from the CDC-funded DHMH HBV vaccine supply.

To support partners with up-to-date resource materials related to HBV vaccination services, a toolkit for the Viral Hepatitis B Vaccination Pilot Program was updated in 2014 to reflect current CDC guidance. The resources in the toolkit include: CDC guidance for HBV vaccination for at-risk individuals; immunization guidance related to HBV vaccination; vaccine storage and monitoring guidance; and checklists and data collection tools to be used by partners participating

in this project. Additionally, CDC guidance related to HCV infection testing has been added to this resource, which includes recommendations for one-time testing of the baby boomer population.

Implementation of Hepatitis B and Hepatitis C Infection Education and Training

Eighty-five (85) clinicians, medical students, community-based organization leaders, and support staff participated in various professional HCV infection educational events.

More than 100 clinicians, support staff, health educators, disease intervention staff, and CDC staff were updated on the Maryland Hepatitis B Vaccination Pilot and DHMH research data. Updates took place at:

- The CDC Reverse Site Visit on March 6, 2014;
- The DHMH HIV Central Regional Advisory Council meeting on April 3, 2014;
- A DHMH Brown Bag Lunch on April 16, 2014; and
- A national webinar on April 25, 2014.

Participants at the Brown Bag Lunch event also received updates on CDC Guidance for HCV Screening and Testing Recommendations.

On April 20-22, 2014, the Viral Hepatitis Prevention Coordinator participated in a national focus group on HIV, Hepatitis, and Overdose among Drug Users held by the National Alliance of State and Territorial AIDS Directors. Individuals, including clinicians, program managers, health educators, community-based organizations, and federal government staff from HBV and HCV infection programs, were invited to collaborate and develop effective interventions for working with and supporting the drug user population and encouraging this population to enter into medical care and treatment for HCV. Information obtained from this session was utilized in strategizing program efforts to provide HCV testing for the drug user population, which is disproportionately impacted by HCV infection in Maryland.

DHMH also participated in several health observances, including: Hepatitis Awareness Month in May 2014, Hispanic Hepatitis Awareness Day on May 27, 2014, and World Hepatitis Awareness Day on July 27, 2013. On July 30, 2014, DHMH staff virtually participated in a White House Observance/webcast recognizing Leadership on World Hepatitis Day. Other activities at DHMH included participation in a variety of media activities including a DHMH press release along with community-focused HBV and HCV infection education. HBV and HCV infection education and information was e-mailed to community stakeholders, Coalition membership, community-based organizations, as well as distributed through multiple DHMH list serves. Throughout the year DHMH's Office of Faith-based and Community Partnerships provided HBV and HCV infection literature for distribution to all programs supported by DHMH's Infectious Disease Bureau.

DHMH also participated in various community events. Eighty (80) faith leaders and community members attended the Yes We Can faith-based conference June 18-19, 2014 in Baltimore City, where HBV and HCV infection education and materials were available. One hundred (100) community members and faith leaders attended The Balm in Gilead Community Action Forum on Hepatitis C on July 29, 2014, which was co-sponsored and co-coordinated by DHMH. In

November 2014, 100 community individuals accessed HIV and HCV infection testing and the DHMH Information and Education Booth at the faith-based community event Testing for Turkeys. Both HCV infection educational events were done in collaboration with Johns Hopkins University and the student testing group Generation Tomorrow.

Interagency Coordination with the Department of Public Safety and Correctional Services

The Viral Hepatitis Prevention Coordinator attends the DPSCS monthly Statewide Infection Control Meeting. This meeting is attended by DPSCS medical staff and the contracted medical vendor staff that provide direct medical services, including HBV and HCV infection services, to the inmate population. Throughout 2014, a correctional pharmacist specializing in HCV treatment provided educational updates regarding treatment of chronic HCV utilizing antiviral regimens that are approved by the U.S. Food and Drug Administration. Additionally, there is a placeholder on the DPSCS Statewide Infection Control Meeting Agenda for DHMH updates at the monthly meeting. The Viral Hepatitis Prevention Coordinator provides HBV and HCV infection program updates regarding CDC recommendations, U.S. Preventive Services Task Force recommendations, Health and Human Services Viral Hepatitis Action Plan updates, DHMH Viral Hepatitis Program activities, and other relevant information as applicable.

III. Future Activities

There will be a significant expansion for treatment of individuals infected with chronic HCV infection living in Maryland in 2015. Due to the recent availability of effective, easily-tolerated, and less complex HCV treatment, it is possible to cure HCV. Likewise, 2015 is expected to bring the approval of HCV medication that is also safe and highly effective among those co-infected with HCV and HIV. The extended health insurance benefits available to Maryland residents through the Affordable Care Act allow individuals with pre-existing HBV and HCV infection to access treatment. Similarly, in 2014 the Maryland Medical Assistance Program updated their clinical criteria for HCV therapy protocol, Clinical Criteria for Hepatitis C (HCV) Therapy, to include the use of new antiviral agents so that individuals insured through the Maryland Medical Assistance Program now have access to HCV treatment and cure.

Increased need for HCV testing and treatment providers has led to increases in HCV testing by primary care providers. Building the capacity of primary care providers to offer HCV treatment has recently been evaluated and shown to be successful in increasing healthcare capacity to diagnose and cure HCV infection.^{23, 24} In May 2014, DHMH was selected as one of three CDC awardees for a grant for community-based programs to test and cure HCV. DHMH launched this \$1.2 M, four-year grant effort on September 30, 2014.

DHMH will utilize the CDC funding and technical support available through this new grant opportunity to work with established partners at the Baltimore City Health Department, the Johns

²³ Litwin AH, et al., "Primary care-based interventions are associated with increases in hepatitis C virus testing for patients at risk," Digestive and Liver Disease, 44(2012):497-503, PubMed, <<http://www.ncbi.nlm.nih.gov/pubmed/22342471>>.

²⁴ Mitruka K, et al., "Expanding Primary Care Capacity to Treat Hepatitis C Virus Infection Through an Evidence-Based Care Model — Arizona and Utah, 2012–2014." Morbidity and Mortality Weekly Report, 63(2014):393-398, Centers for Disease Control and Prevention, 20 October 2014, <<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6318a2.htm>>.

Hopkins University, and the Baltimore County Health Department to create and implement a package of HCV services to address the HCV provider shortage issues identified in Baltimore City and Baltimore County. Project activities will build upon the CDC Foundation-funded HCV Testing and Linkage-to-Care grant program in Baltimore City and will augment ongoing activities implemented by the Maryland Adult Viral Hepatitis Prevention program. The target population for this grant proposal is persons of low socioeconomic status in Baltimore City and Baltimore County who have risk factors of injection drug use and sexually transmitted infections and are medically-underserved, particularly African American residents. Additionally, individuals born between 1945 and 1965, and those at-risk individuals for HCV infection will be included in these priority populations, and will be targeted for HCV screening, testing, care, and cure.

DHMH will continue to grow the Community-Based Program to Test and Cure Hepatitis C. The goal of this program is to reduce HCV-related morbidity and mortality by strengthening healthcare capacity in Baltimore City and Baltimore County to diagnose and cure HCV infection. This goal will be achieved through the implementation of six strategies:

1. Provider training and ongoing telemedicine consultation to increase HCV treatment and case management by primary-care providers;
2. Provider and community education to increase HCV testing by primary care providers and in the community;
3. Local health department linkage-to-care services to ensure HCV-infected persons are linked to treatment and supported in adhering to their treatment regimen;
4. Increased HCV surveillance infrastructure and data sharing to refine population-level estimates of HCV infection and health outcomes;
5. Increased utilization of electronic medical records to enhance HCV services, evaluate service outcomes, and inform quality improvement; and
6. Policy initiatives to leverage the Affordable Care Act to improve client access to HCV testing and care.

The DHMH Viral Hepatitis Prevention Coordinator will provide DHMH and public health coordination needed for the launch of the Community-Based Program to Test and Cure Hepatitis C. DHMH aims to hire two additional program staff to administer and coordinate this grant initiative.

Additionally, at the request of the Maryland General Assembly, DHMH will submit a one-time report on HCV to the Senate Finance Committee in 2015. This report will provide information on certain HCV screening and diagnostic being administered in the State, HCV cases, and HCV data.

IV. Conclusion

In 2014, through dedicated DHMH efforts along with increased community partnership involvement, DHMH has attained unprecedented funding levels to support HBV and HCV infection program services which will address the HBV and HCV infection epidemic in Maryland. DHMH will continue working to ensure that all Marylanders know their hepatitis status, and have access to lifesaving healthcare and treatment.

Appendix A. Glossary of Key Terms

This glossary provides definitions of key terms used for viral hepatitis activities in the State of Maryland.

Acute Hepatitis B infection	A short-term illness that occurs within the first 6 months after someone is exposed to the Hepatitis B virus. Acute infection can lead to chronic infection. (From http://www.cdc.gov/hepatitis/B/index.htm)
Acute Hepatitis C infection	A short-term illness that occurs within the first 6 months after someone is exposed to the Hepatitis C virus. Acute infection leads to chronic infection in most cases. (From http://www.cdc.gov/hepatitis/C/index.htm)
Antibody	A protein substance found in the blood that is produced by the body's immune system in response to harmful foreign substances such as viruses, bacteria, fungi, etc. Antibodies protect the body from disease by attaching to the virus and destroying it. (From http://www.cdc.gov/hepatitis/B/bFAQ.htm#overview)
Chronic Hepatitis B infection	A long-term illness that occurs when the Hepatitis B virus remains in the body. Chronic infection can lead to long-term health problems, and possibly death. (From http://www.cdc.gov/hepatitis/B/index.htm)
Chronic Hepatitis C infection	A long-term illness that occurs when the Hepatitis C virus remains in the body. Chronic infection can lead to serious health problems including liver failure, cirrhosis, liver cancer, and possibly death. (From http://www.cdc.gov/hepatitis/C/index.htm)
Cirrhosis	The replacement of normal liver tissue with non-living scar tissue. (From http://www.liverfoundation.org/abouttheliver/info/cirrhosis/)

HCV antibody positive	A test outcome that presumes current or past HCV infection. A positive HCV antibody test should be followed by a HCV RNA test. (From http://www.cdc.gov/hepatitis/hcv/PDFs/hcv_flow.pdf)
HCV RNA testing	Recommended testing used to detect current HCV infection. (http://www.cdc.gov/hepatitis/hcv/PDFs/hcv_flow.pdf)
Hepatitis	Any inflammation of the liver. (From http://www.cdc.gov/hepatitis/publicinfo.htm)
Hemodialysis	A common method of treatment for individuals with advanced kidney failure that filters wastes, salts, and fluid from the blood. This treatment is performed using a dialysis machine and a dialyzer filter which is connected to the patient through tubes that are inserted into the veins. (From http://www.mayoclinic.org/tests-procedures/hemodialysis/basics/definition/prc-20015015 , http://kidney.niddk.nih.gov/Kudiseases/Pubs/hemodialysis/index.aspx)
Hepatitis B Virus (HBV)	A liver disease that results from infection with the Hepatitis B virus. (From http://www.cdc.gov/hepatitis/B/index.htm)
Hepatitis C Virus (HCV)	A liver disease that results from infection with the Hepatitis C virus. (From http://www.cdc.gov/hepatitis/C/index.htm)
Human Immunodeficiency Virus (HIV)	A retrovirus that infects cells of the immune system, destroying or impairing their function. (From http://www.cdc.gov/hiv/basics/whatishiv.html)
Injection (intravenous) drugs	Drugs that are injected directly into the vein. Includes heroin, amphetamines, buprenorphine, benzodiazepines, barbiturates, cocaine, methamphetamine, or any water-soluble drug. (From http://emedicine.medscape.com/article/286976-overview)

Perinatal

Describes the period immediately before and after birth.

RNA (ribonucleic acid) Virus

A virus that has RNA as its genetic material. RNA viruses are usually single-stranded. RNA viruses are distinct in that they have high mutation rates and short replication times. Hepatitis C is a RNA virus. (From <http://www.ncbi.nlm.nih.gov/pubmed/9343347>)

Viral Hepatitis

Inflammation of the liver caused by a virus. (From <http://www.cdc.gov/hepatitis/publicinfo.htm>)