

**Enhanced Comprehensive HIV Prevention Planning  
For the Baltimore-Towson Metropolitan Statistical Area**

**Workbook #2**

**GOALS, STRATEGIES AND OBJECTIVES  
NATIONAL STRATEGIC GOALS TOOL**

**APRIL 15, 2011**

**Maryland Department of Health and Mental Hygiene  
Infectious Disease and Environmental Health Administration**

## Baltimore-Towson MSA ECHPP Goals, Strategies and Objectives

### Required Intervention #1: “Routine, opt-out screening for HIV in clinical settings”

<p><b>Goal 1:</b> Increase the number of residents in the Baltimore-Towson MSA who receive routine HIV screening as part of ongoing medical care.</p>	<p><b>Funding sources:</b> CDC-DHAP, HRSA, SAMHSA</p>
<p><b>Strategy 1:</b> Identify and adapt provider training materials regarding routine HIV testing in clinical settings to promote the integration of HIV testing into routine medical care and substance abuse treatment services.</p> <p><b>Strategy 2:</b> Provide training, capacity building and technical assistance to medical providers in the Baltimore-Towson MSA to increase routine HIV testing in clinical settings.</p>	
<p><b>Objective 1:</b> By May 30, 2011, establish a contract(s) with a medical society and/or an AIDS Education Training Center (AETC) to adapt/develop provider training materials and conduct provider education.</p> <p><b>Objective 2:</b> By July 31, 2011, adapt/develop provider training materials and determine mechanisms for provider education and technical assistance.</p> <p><b>Objective 3:</b> By July 31, 2011, work with HRSA’s Bureau of Primary Health Care and the National Association of Community Health Centers (NACHC) to identify Community Health Centers that provide ongoing medical care in high prevalence areas of the Baltimore-Towson MSA.</p> <p><b>Objective 4:</b> By September 29, 2011, conduct provider education with institutions/ facilities that provide ongoing medical care in high prevalence areas of the Baltimore-Towson MSA.</p> <p><b>Objective 5:</b> By September 29, 2011, continue to partner with the Maryland DHMH Alcohol and Drug Abuse Administration (ADAA) and Baltimore Substance Abuse Systems, Inc. to integrate HIV testing into substance abuse treatment services.</p>	<p><b>Data sources:</b> Provider training materials, Contract progress reports, Training/technical assistance logs</p>

<p><b>Goal 2:</b> Increase the number of HIV tests provided in emergency departments located in high prevalence communities.</p>	<p><b>Funding sources:</b> CDC-DHAP</p>
<p><b>Strategy 1:</b> Work with emergency departments to establish reimbursement protocols to maximize the number of HIV tests routinely provided to emergency department patients.</p>	
<p><b>Objective 1:</b> By June 30, 2011, assess current policies related to reimbursement for routine HIV screening by third party payers in the Baltimore-Towson MSA.</p> <p><b>Objective 2:</b> By July 31, 2011, work with an AETC to adapt the HRET toolkit<sup>1</sup> and develop a Practice Advisory.</p> <p><b>Objective 3:</b> By August 31, 2011, disseminate the Toolkit and Practice Advisory to emergency department HIV screening programs and provide technical assistance to initiate third party reimbursement.</p> <p><b>Objective 4:</b> By September 29, 2011, host one collaboration opportunity for staff from emergency department testing programs for the purposes of sharing ideas and best practices related to reimbursement for routine HIV screening by third party payers.</p> <p><b>Objective 5:</b> By September 29, 2011, ensure that all IDEHA-supported emergency department HIV screening programs have begun seeking reimbursement for HIV testing.</p> <p><b>Objective 6:</b> By March 31, 2012, increase the number of HIV tests provided by emergency department screening programs by 15%.</p>	<p><b>Data sources:</b> Adapted toolkit, Materials distribution logs, Training/technical assistance logs; HIV testing data</p>

<sup>1</sup> Miller, J; Hund, C; Akamigbo, A; *HIV Testing and Screening Cost and Reimbursement Toolkit*. <http://www.hret.org/hiv-cost> Accessed on March 10, 2011.

**Required Intervention #2: “HIV testing in non-clinical settings to identify undiagnosed HIV infection”**

<p><b>Goal 1:</b> Ensure HIV testing resources are focused on the most effective geographic areas, settings, agencies and testing strategies.</p>	<p><b>Funding sources:</b> CDC-DHAP</p>
<p><b>Strategy 1:</b> Increase utilization of data for program planning and implementation.  <b>Strategy 2:</b> Increase coordination of HIV testing and linkage-to-care programs.  <b>Strategy 3:</b> Increase accountability for HIV testing resources (both funding and rapid test kits) through enhanced program monitoring.</p>	
<p><b>Objective 1:</b> By May 15, 2011, analyze client-level HIV testing data and budgets to assess the relative costs and outcomes of current HIV testing agencies, settings and strategies.  <b>Objective 2:</b> By May 30, 2011, partner with local health departments to review the results of the mathematical modeling, client-level data analysis, and epidemiological data, and develop jurisdictional plans for expanding and enhancing HIV testing efforts.  <b>Objective 3:</b> By June 30, 2011, partner with local health departments and other testing agencies to develop results-oriented program guidelines and performance measures related to cost per HIV test, targeting, seropositivity, post-test counseling, linkage to care, and referral to partner services.  <b>Objective 4:</b> By July 1, 2011, implement revised contracts and Memoranda of Agreement with all agencies supported by IDEHA for HIV testing which include specifications for testing settings and strategies, performance measures for the number of HIV tests and seropositivity, requirements for semi-annual program performance reviews, and protocols for performance improvement plans when agencies do not meet contract deliverables/ performance measures.  <b>Objective 5:</b> By July 31, partner with the Baltimore City Health Department, the Baltimore City Mobile Van Coalition, and other agencies that conduct HIV testing and linkage-to-care in Baltimore City to develop enhanced mechanisms for coordinating HIV testing and linkage-to-care programs.  <b>Objective 6:</b> By January 31, 2012, conduct semi-annual program performance review with all IDEHA-supported HIV testing programs and begin implementation of performance improvement plans as needed.</p>	<p><b>Data sources:</b> Budgets, Contracts, Program plans, meeting notes, HIV testing data</p>
<p><b>Goal 2:</b> Increase HIV testing among the populations at greatest risk for HIV infection in the Baltimore-Towson MSA.</p>	<p><b>Funding sources:</b> CDC-DHAP</p>
<p><b>Strategy 1:</b> Work with IDEHA-supported HIV testing programs to develop strategies to increase reach to high-risk populations (e.g. outreach and social network testing, utilizing HIV/STI surveillance and partner services data to target testing efforts).  <b>Strategy 2:</b> Fund three community-based organizations for new outreach testing programs serving the populations at greatest risk for HIV infection in the MSA.</p>	
<p><b>Objective 1:</b> By April 30, 2011, request peer-to-peer technical assistance via NASTAD on effective testing strategies for reaching African American MSM, injecting drug users, high-risk heterosexuals, and other high-risk, hard-to-reach populations.  <b>Objective 2:</b> By June 15, 2011, develop and release Request for Proposals (RFP) for three new outreach testing programs (one targeting African American MSM, one targeting injection drug users, and one targeting high-risk heterosexuals).  <b>Objective 3:</b> By June 30, 2011, partner with local health departments, community-based organizations and other testing agencies to develop enhanced outreach plans tailored to their local epidemiology.  <b>Objective 4:</b> By July 31, 2011, establish contracts with three community-based organizations for new outreach testing programs.</p>	<p><b>Data sources:</b> Program plans, RFP, Contracts, HIV Testing Data</p>

**Required Intervention #2 (continued):**

<b>Goal 3:</b> Increase the percentage of newly-identified HIV-positive clients who learn their serostatus and receive post-test counseling.	<b>Funding sources:</b> CDC-DHAP
<b>Strategy 1:</b> Shift to rapid testing in non-clinical testing programs that are currently utilizing conventional testing (as feasible and appropriate).	
<p><b>Objective 1:</b> By May 15, 2011, analyze client-level HIV testing data and budgets to assess the relative costs and outcomes of rapid and conventional testing in non-clinical settings.</p> <p><b>Objective 2:</b> By May 31, 2011, identify agencies and settings where shifting to rapid testing is likely to increase the percentage of newly-identified HIV-clients who learn their serostatus and receive post-test counseling.</p> <p><b>Objective 3:</b> By June 30, 2011, partner with agencies to develop plans for implementation of rapid testing and train testing staff.</p> <p><b>Objective 4:</b> By July 31, 2011, begin implementation of rapid testing in additional non-clinical testing programs.</p> <p><b>Objective 5:</b> By December 31, 2011, increase the percentage of newly-identified HIV-positive clients tested by IDEHA-supported testing programs who learn their serostatus and receive post-test counseling from 75% to 85%.</p>	<b>Data sources:</b> Cost analyses, Program plans, Training logs, HIV testing data

**Required Intervention #3: “Condom distribution prioritized to target HIV-positive persons and persons at highest risk of acquiring HIV infection”**

<b>Goal 1:</b> Increase the number of condoms distributed to HIV-positive persons and persons at the highest risk of acquiring HIV infection.	<b>Funding sources:</b> CDC-DHAP, HRSA-HAB
<b>Strategy 1:</b> Increase funding for condom distribution in the Baltimore-Towson MSA by 25%.	
<b>Strategy 2:</b> Increase the number of agencies and sites distributing condoms to HIV-positive persons and persons at highest risk of acquiring HIV infection.	
<p><b>Objective 1:</b> By April 15, 2011, allocate additional funding for condom distribution.</p> <p><b>Objective 2:</b> By May 30, 2011, review available data sources to identify additional agencies, sites, and venues that reach and can distribute condoms to HIV-positive persons and persons at highest risk of acquiring HIV infection.</p> <p><b>Objective 3:</b> By June 30, 2011, begin expanded condom distribution in partnership with local health departments, community-based organizations, HIV care providers, social service organizations, and other agencies that serve high-risk persons.</p>	<b>Data sources:</b> Condom database, Distribution center reports

**Required Intervention #4: “Provision of Post-Exposure Prophylaxis to populations at greatest risk”**

<b>Goal 1:</b> Issue guidance related to the provision of non-occupational post-exposure prophylaxis to medical providers in the Baltimore-Towson MSA.	<b>Funding sources:</b> CDC-DHAP
<b>Strategy 1:</b> Develop Maryland guidelines for non-occupational post-exposure prophylaxis.	
<p><b>Objective 1:</b> By July 1, 2011, establish a contract with an academic partner or AETC.</p> <p><b>Objective 2:</b> By August 15, 2011, review national guidelines and best practices for the provision of post-exposure prophylaxis after sexual, injection-drug use or other non-occupational exposure to HIV.</p> <p><b>Objective 3:</b> By September 29, 2011, draft Maryland guidelines for post-exposure prophylaxis for non-occupational exposure to HIV.</p> <p><b>Objective 4:</b> By December 31, 2011, disseminate guidelines to medical providers in the Baltimore-Towson MSA.</p>	<b>Data sources:</b> Contract progress reports, Guidelines, Distribution logs

**Required Intervention #5: “Efforts to change existing structures, policies, and regulations that are barriers to creating an environment for optimal HIV prevention, care, and treatment”**

<p><b>Goal 1:</b> Reduce barriers to the availability of sterile syringes.</p>	<p><b>Funding sources:</b> CDC-DHAP</p>
<p><b>Strategy 1:</b> Work with the Maryland Board of Pharmacy to discuss a potential strategy for establishing Pharmacy based syringe access.  <b>Strategy 2:</b> Educate stakeholders including the members of Maryland Pharmacists’ Association and medical associations including Med-Chi (the State Medical Society) and Monumental City Medical Society to provide education to their membership about the public health benefits of syringe access.</p>	
<p><b>Objective 1:</b> By June 30, 2011, conduct a review of laws and regulations in states that have successfully implemented pharmacy based syringe access programs.  <b>Objective 2:</b> By September 29, 2011, conduct interviews with staff in states that have successfully implemented pharmacy-based syringe access to outline strategies for implementing these programs.  <b>Objective 3:</b> By December 31, 2011, meet with representative of the Maryland Board of Pharmacy to discuss developing a strategy to establish pharmacy based syringe access.</p>	<p><b>Data sources:</b> Review of laws and regulations, Interview notes, Meeting notes</p>
<p><b>Goal 2:</b> Improve the provision of school-based comprehensive sexual health education, including HIV prevention education.</p>	<p><b>Funding sources:</b> State, local, CDC-DASH</p>
<p><b>Strategy 1:</b> Continue to partner with the Maryland State Department of Education, the Baltimore City Health Department, the Baltimore City School System, and stakeholders to develop and implement a standardized curriculum for comprehensive sexual health education in Baltimore City schools.</p>	
<p><b>Objective 1:</b> By September 29, 2011, meet with the Maryland State Department of Education, the Baltimore City School System, and stakeholders to identify specific activities and timelines for those activities, that IDEHA and other stakeholders can do to assist Baltimore City School System to meet its goals to develop and implement a standardized curriculum for comprehensive sexual health education in Baltimore City Schools.</p>	<p><b>Data sources:</b> Meeting notes</p>

**Required Intervention #6: “Implement linkage to HIV care, treatment, and prevention services for those testing HIV positive and not currently in care”**

<p><b>Goal 1:</b> Increase the percentage of HIV-positive clients who are successfully linked to HIV medical care and support services.</p>	<p><b>Funding sources:</b> CDC-DHAP HRSA-HAB</p>
<p><b>Strategy 1:</b> Implement revised linkage-to-care protocols for IDEHA-supported HIV testing programs to require immediate linkage or active referral to an HIV care provider based on rapid reactive results.  <b>Strategy 2:</b> Support additional linkage-to-care staff to assist clients in accessing HIV medical care and support services.  <b>Strategy 3:</b> Increase coordination between HIV testing programs, linkage-to-care programs and HIV care providers to support effective referral and linkage to care.</p>	
<p><b>Objective 1:</b> Continue monthly collaboration meetings between IDEHA and Baltimore City HIV prevention and care staff to provide a forum for discussing program collaboration.  <b>Objective 2:</b> By June 30, 2011, develop revised linkage-to-care protocols for IDEHA-supported HIV testing programs in partnership with HIV testing agencies, RW-supported linkage-to-care programs, IDEHA’s Center for HIV Care Services and the Baltimore City Health Department’s Ryan White Office.  <b>Objective 3:</b> By July 1, 2011, implement revised contracts and memoranda of agreement with all agencies supported by IDEHA for HIV testing which include specifications for immediate linkage or active referral to an HIV care provider.  <b>Objective 4:</b> By July 1, 2011, increase state fiscal year 2012 funding for IDEHA-supported case management services in the Baltimore-Towson MSA by 40% to increase the availability of linkage case managers.  <b>Objective 5:</b> By July 31, partner with the Baltimore City Health Department, the Baltimore City Mobile Van Coalition, and other agencies that conduct HIV testing and linkage-to-care in Baltimore City to develop enhanced mechanisms for coordinating HIV testing and linkage-to-care programs.  <b>Objective 6:</b> By July 31, 2011, partner with the AETCs and HRSA’s Bureau of Primary Health Care to develop plans for enhanced collaboration with community health centers and private HIV care providers.  <b>Objective 7:</b> By September 29, 2011, partner with an AETC to host a one-day linkage-to-care conference for HIV testing and HIV care providers in the Baltimore-Towson MSA.  <b>Objective 8:</b> By December 31, 2011, increase the percentage of newly-identified HIV-positive clients served by IDEHA-supported HIV testing programs who are linked to HIV medical care from 60% to 85%.  <b>Objective 9:</b> By December 31, 2015, increase the percentage of persons diagnosed with HIV by all providers who are linked to clinical care as evidenced by having a CD4 or viral load measure within 3 months of HIV diagnosis from 57% to 85%.</p>	<p><b>Data sources:</b> Protocols, Budgets, Contracts/MOA, Training/technical assistance logs, HIV testing data, CD4 and viral load data</p>

**Required Intervention #7: “Implement interventions or strategies promoting retention in or re-engagement in care for HIV-positive persons”**

<p><b>Goal 1:</b> Increase the percentage of HIV-positive clients who are engaged in ongoing, comprehensive HIV medical care and support services.</p>	<p><b>Funding sources:</b> HRSA-HAB, CDC-DHAP</p>
<p><b>Strategy 1:</b> Support additional linkage-to-care and case management staff to assist clients in maintaining ongoing HIV medical care and support services.  <b>Strategy 2:</b> Increase collaboration between HIV care providers and local health department field staff (e.g. DIS and linkage-to-care outreach workers) to actively re-link clients who have dropped out of care.</p>	
<p><b>Objective 1:</b> Provide training for HIV care providers on procedures for requesting assistance re-linking clients to care at the Ryan White Statewide Meeting in June 2011.  <b>Objective 2:</b> By July 1, 2011, expand IDEHA-supported linkage-to-care outreach activities by funding additional agencies that demonstrate best practices for outreach activities that target and engage HIV-positive clients in on-going comprehensive HIV medical care.  <b>Objective 3:</b> By July 1, 2011, increase SFY12 funding for IDEHA-supported case management services in the Baltimore-Towson MSA by 40% to increase the availability of linkage case managers.<sup>2</sup>  <b>Objective 4:</b> By July 1, 2011, partner with the AETCs, HRSA’s Bureau of Primary Health Care and local health departments to develop plans for training community health centers and private HIV care providers on mechanisms for requesting assistance from DIS to re-link clients to care.  <b>Objective 5:</b> By September 29, 2011, partner with the AETCs and HRSA’s Bureau of Primary Health Care to disseminate information to community health centers and private HIV care providers on mechanisms for requesting assistance re-linking clients to care.  <b>Objective 6:</b> Continue to utilize clinical quality management (CQM) mechanisms to assess the percentage of Ryan White clients who are in continuous care and provide technical assistance as needed.</p>	<p><b>Data sources:</b> Contract budgets, Training/technical assistance logs, Ryan White HIV services data, Chart reviews, Client surveys</p>

**Required Intervention #8: “Implement policies and procedures that will lead to the provision of antiretroviral treatment in accordance with current treatment guidelines for HIV-positive persons”**

<p><b>Goal 1:</b> Maintain and monitor standards of care that support the provision of treatment in accordance with Public Health Service (PHS) guidelines.</p>	<p><b>Funding sources:</b> HRSA-HAB</p>
<p><b>Strategy 1:</b> Utilize data from the Maryland AIDS Drug Assistance Program (MADAP) to issue periodic reports to providers on compliance with PHS guidelines.  <b>Strategy 2:</b> Partner with the Maryland Medicaid Pharmacy Program to develop mechanisms for monitoring compliance with PHS guidelines.  <b>Strategy 3:</b> Continue to monitor compliance with PHS guidelines through clinical record reviews as part of Quality Management site visits with funded providers.</p>	
<p><b>Objective 1:</b> By June 30, 2011, draft policy for addressing antiretroviral (ARV) prescribing anomalies found in claims paid for by MADAP.  <b>Objective 2:</b> By September 1, 2011, develop and run reports on common antiretroviral prescribing anomalies on claims data in the MADAP database.  <b>Objective 3:</b> By October 31, 2011, meet with the Maryland Medicaid Pharmacy Program to discuss opportunities to develop mechanisms for utilizing the Pharmacy Benefits Management system to monitor compliance with PHS guidelines.  <b>Objective 4:</b> Continue the provision of on-site record reviews of Ryan White-funded agencies for compliance with standards of care (including PHS guidelines).</p>	<p><b>Data sources:</b> MADAP database, Record reviews, Meeting notes</p>

<sup>2</sup> Note: This objective is also listed under intervention 6 and 9. Increased staffing will impact initial engagement in care, retention in care, re-engagement in care, and treatment adherence.

**Required Intervention #9: “Implement interventions or strategies promoting adherence to antiretroviral medications for HIV-positive persons”**

<b>Goal 1:</b> Increase the percentage of HIV-positive clients who are adherent to their antiretroviral treatment regimen.	<b>Funding sources:</b> HRSA-HAB
<b>Strategy 1:</b> Expand case management and treatment adherence services. <b>Strategy 2:</b> Train providers in best practices for treatment adherence support.	
<b>Objective 1:</b> By July 1, 2011, increase SFY12 funding for IDEHA-supported case management services in the Baltimore-Towson MSA by 40% to increase the availability of case managers to assist clients with treatment adherence. <sup>3</sup> <b>Objective 2:</b> By July 30, 2011, request peer-to-peer technical assistance via NASTAD on best practices for treatment adherence support. <b>Objective 3:</b> By September 29, 2011, partner with an AETC to train HIV care providers on best practices for treatment adherence support.	<b>Data sources:</b> Contract budgets; Training/technical assistance logs

**Required Intervention #10: “Implement STD screening according to current guidelines for HIV-positive persons”**

<b>Goal 1:</b> Increase the percentage of persons living with HIV who receive recommended initial and ongoing STI screening as part of ongoing HIV medical care.	<b>Funding sources:</b> HRSA-HAB
<b>Strategy 1:</b> Continue to enhance collaboration across HIV prevention, STI prevention and HIV care at the state and local levels. <b>Strategy 2:</b> Continue to disseminate guidelines for initial and ongoing STI screening for persons living with HIV to HIV care providers. <b>Strategy 3:</b> Continue to monitor STI screening by HIV care providers and provide technical assistance as needed.	
<b>Objective 1:</b> By April 1, 2011, expand the membership of the monthly collaboration meetings between IDEHA and Baltimore City HIV prevention and care staff to include staff from IDEHA’s Center for STI Prevention. <b>Objective 2:</b> Provide information on the 2010 STD treatment guidelines and the recommendations for initial and ongoing STI screening for HIV-positive persons at the Ryan White Statewide Meeting in June 2011. <b>Objective 3:</b> By December 31, 2011, partner with the AIDS Education and Training Centers (AETCs), Prevention Training Centers (PTCs), medical societies and managed care organizations to disseminate guidelines for initial and ongoing STI screening for HIV-positive persons to relevant providers in the Baltimore-Towson MSA.	<b>Data sources:</b> Ryan White HIV services data, Record reviews, Client surveys

<sup>3</sup> Note: This objective is also listed under interventions 6 and 7. Increased staffing will impact initial engagement in care, retention in care, re-engagement in care, and treatment adherence.

**Required Intervention #11: “Implement prevention of perinatal transmission for HIV-positive persons”**

<p><b>Goal 1:</b> Increase the percentage of pregnant women who receive HIV testing during their first trimester; and</p> <p><b>Goal 2:</b> Increase the percentage of women at high-risk for HIV infection during pregnancy who receive repeat testing in the third trimester.</p>	<p><b>Funding sources:</b> CDC-DHAP</p>
<p><b>Strategy 1:</b> Continue to work with the Perinatal HIV Consultation and Education Team (PHECT), the Regional Perinatal Advisory Group (RPG) and the Family Health Administration (FHA) to educate perinatal providers regarding Maryland laws and regulations for HIV testing during pregnancy and clinical recommendations.</p> <p><b>Strategy 2:</b> Work with the PHECT, RPAG and FHA to develop and disseminate guidelines for repeat testing in the third trimester for women at high risk for HIV infection during pregnancy.</p>	
<p><b>Objective 1:</b> By May 31, 2011, assess the most appropriate HIV testing intervals for high-risk pregnant women residing in high prevalence areas of the Baltimore-Towson MSA.</p> <p><b>Objective 2:</b> By July 31, 2011, disseminate recommendations regarding HIV testing intervals for high-risk pregnant women to all institution/facilities that provide prenatal care in the Baltimore-Towson MSA (e.g. Medicaid MCOs, FQHCs, large primary care practices, hospital outpatient clinics).</p> <p><b>Objective 3:</b> Continue to support outreach and HIV/STI partner services to provide HIV testing to high-risk women and connect pregnant women to prenatal care.</p>	<p><b>Data sources:</b> Materials distribution logs; HIV testing data; HIV/STI partner services data</p>
<p><b>Goal 3:</b> Increase the percentage of women who present for labor and delivery with undocumented HIV status who receive rapid testing; and</p> <p><b>Goal 4:</b> Increase the percentage of women at high-risk for HIV infection during pregnancy who receive rapid testing in labor and delivery (regardless of maternal HIV testing history).</p>	<p><b>Funding sources:</b> CDC-DHAP</p>
<p><b>Strategy 1:</b> Work with the PHECT to provide technical assistance to L&amp;D hospitals regarding the development of formal policies for rapid testing in L&amp;D and quality assurance mechanisms.</p> <p><b>Strategy 2:</b> Work with the PHECT, RPAG and FHA to develop and disseminate guidelines for rapid HIV testing in L&amp;D (regardless of maternal HIV testing history) for women at high risk for HIV infection during pregnancy.</p>	
<p><b>Objective 1:</b> By May 31, 2011, assess the most appropriate HIV testing intervals for high-risk pregnant women residing in high prevalence areas of the MSA.</p> <p><b>Objective 2:</b> By July 31, 2011, disseminate recommendations regarding HIV testing intervals for high-risk pregnant women to all institution/facilities that provide prenatal care in the Baltimore-Towson MSA (e.g. Medicaid MCOs, FQHCs, large primary care practices, hospital outpatient clinics).</p>	<p><b>Data sources:</b> Technical assistance logs; Materials distribution logs</p>

Note: In addition to the expanded activities described above, IDEHA will continue the following activities to reduce mother-to-child HIV transmission in the Baltimore-Towson MSA:

- Outreach and HIV/STI partner services to provide HIV testing to high-risk women and connect pregnant women to prenatal care;
- Provision of comprehensive HIV treatment, care and support to HIV-positive pregnant women through the Maryland Ryan White Part D Network; and
- Collaboration with the Family Health Administration, the RPAG and the Maryland Ryan White Part D Network to reduce barriers to the prevention of mother-to-child transmission, such as maternal mental health and substance use issues.

**Required Intervention #12: “Implement ongoing partner services for HIV-positive persons”**

<p><b>Goal 1:</b> Increase the number of newly-diagnosed HIV-positive persons who are provided with HIV/STI partner services.</p>	<p><b>Funding sources:</b> CDC-DHAP, CDC-DSTDP, State</p>
<p><b>Strategy 1:</b> Increase the availability of trained HIV/STI partner services field staff.  <b>Strategy 2:</b> Conduct provider outreach and education with private providers and Medicaid MCOs in high prevalence areas of the Baltimore-Towson MSA.  <b>Strategy 3:</b> Reduce barriers related to the initiation of partner services for newly-diagnosed HIV-positive clients tested outside of IDEHA-supported HIV testing programs (e.g. private providers, Medicaid MCOs).</p>	
<p><b>Objective 1:</b> By July 1, 2011, increase the amount of funding awarded to local health departments in high morbidity jurisdictions to support HIV/STI partner services field staff by \$125,000.  <b>Objective 2:</b> By July 1, 2011, identify providers in the Baltimore-Towson MSA who are newly diagnosing HIV-positive persons and not currently requesting HIV/STI partner services for their clients.  <b>Objective 3:</b> By September 29, 2011, partner with local health departments in high morbidity jurisdictions in the MSA to hire and train 2 additional Disease Intervention Specialists (DIS).  <b>Objective 4:</b> By September 29, 2011, conduct targeted provider outreach to educate private providers about the benefits of HIV/STI partner services and mechanisms for requesting follow-up for their clients.  <b>Objective 5:</b> By September 29, 2011, assess the effectiveness of current regulations and mechanisms for HIV partner services referrals by private providers and Medicaid MCOs.  <b>Objective 6:</b> By March 31, 2012, increase the number of newly-diagnosed HIV-positive persons who are provided with HIV/STI partner services by 15%.</p>	<p><b>Data sources:</b> Contracts, Budgets, meeting notes, HIV/STI partner services data, EHARS</p>
<p><b>Goal 2:</b> Increase the quality and effectiveness of HIV/STI partner services.</p>	<p><b>Funding sources:</b> CDC-DHAP, CDC-DSTDP, State</p>
<p><b>Strategy 1:</b> Transition to PRISM, a statewide integrated HIV/STI data system customized to meet local STI surveillance and HIV/STI partner services data collection, data management, program implementation, program monitoring and quality assurance needs.  <b>Strategy 2:</b> Increase supervision staff in jurisdictions with the highest morbidity to ensure appropriate oversight and management of HIV/STI partner services.  <b>Strategy 3:</b> Increase staff at IDEHA for HIV partner services program monitoring and quality assurance.</p>	
<p><b>Objective 1:</b> By May 30, 2011, review PRISM and outline specifications for software modifications and historical data migration.  <b>Objective 2:</b> By July 1, 2011, increase the amount of funding provided to local health departments to support HIV/STI partner services Front Line Supervisors by \$200,000.  <b>Objective 3:</b> By August 1, 2011, hire and train one additional HIV PS coordinator at IDEHA.  <b>Objective 4:</b> By September 15, 2011, modify software and data migration programs, and conduct beta testing.  <b>Objective 5:</b> By September 29, 2011, hire and train two additional HIV/STI partner services Front Line Supervisors (1 in Baltimore City and 1 in Baltimore County).  <b>Objective 6:</b> By November 15, 2011, conduct software training and begin utilizing PRISM for statewide STI surveillance and HIV/STI partner services data.</p>	<p><b>Data sources:</b> Budgets, Contracts, Training logs</p>

**Required Intervention #13: “Behavioral risk screening followed by risk reduction interventions for HIV-positive persons (including those for HIV-discordant couples) at risk of transmitting HIV”**

<p><b>Goal 1:</b> Increase the percentage of PLWH who receive ongoing risk assessment and risk reduction counseling (when applicable) as part of HIV medical care and support services.</p>	<p><b>Funding sources:</b> HRSA-HAB, CDC-DHAP</p>
<p><b>Strategy 1:</b> Assess current provider practices and barriers/facilitators related to ongoing risk assessment and risk reduction counseling as part of HIV medical care and support services.  <b>Strategy 2:</b> Review and update the standards of care for Ryan White HIV services in Maryland to include guidelines for ongoing risk assessment and risk reduction counseling, and monitor implementation via continuous quality management.  <b>Strategy 3:</b> Provide education and training to HIV care staff on the revised standards of care and skills for assessing risk and providing client-center risk reduction counseling.</p>	
<p><b>Objective 1:</b> By May 1, 2011, establish a contract with an academic partner to review national best practices for the integration of behavioral risk assessment and risk reduction interventions into HIV medical care and support services, and assess current HIV provider practices in the Baltimore-Towson MSA.  <b>Objective 3:</b> By June 30, 2011, review best practices for the integration of risk assessment and prevention counseling into ongoing HIV medical care.  <b>Objective 4:</b> By June 30, 2011, conduct HIV provider interviews and focus groups to assess current provider practices and barriers/facilitators related to ongoing risk assessment and risk reduction counseling as part of HIV medical care and support services.  <b>Objective 5:</b> By September 29, 2011, review and update the standards of care for Ryan White HIV services in Maryland to include additional guidelines for ongoing risk assessment and risk reduction counseling.  <b>Objective 6:</b> By September 29, 2011, update IDEHA and BCHD RW Part A continuous quality management protocols to monitor compliance with the updated standards.  <b>Objective 7:</b> By September 29, 2011, partner with HRSA and the AETCs to disseminate the updated standards and provide training to HIV care staff.</p>	<p><b>Data sources:</b> Interview and focus group transcripts, Record reviews, Client surveys, Site visit reports</p>

<p><b>Goal 2:</b> Increase the percentage of high-risk PLWH who receive intensive behavioral interventions to support them in reducing their high-risk sexual and needle-sharing behaviors.</p>	<p><b>Funding sources:</b> CDC-DHAP</p>
<p><b>Strategy 1:</b> Increase the availability of individual and group-level behavioral interventions for high-risk persons living with HIV.  <b>Strategy 2:</b> Develop guidelines and mechanisms to assist HIV care staff in identifying persons living with HIV who may need additional risk reduction support and making effective referrals to intensive behavioral interventions.</p>	
<p><b>Objective 1:</b> By May 15, 2011, identify additional evidence-based behavioral interventions that are culturally appropriate for use with PLWH in the Baltimore-Towson MSA.  <b>Objective 2:</b> By June 15, 2011, develop plans to increase the percentage of current HERR programs serving PLWH from 20% to 50%.<sup>4</sup>  <b>Objective 3:</b> By September 29, 2011, provide training in evidence-based behavioral interventions for PLWH to HERR facilitators in the MSA and disseminate information to HIV care providers on guidelines and mechanisms for referring their high-risk clients.  <b>Objective 4:</b> By October 31, 2011, begin expanded implementation of HERR interventions for PLWH by local health departments, CBOs, and other agencies.</p>	<p><b>Data sources:</b> Budgets, Contracts, HERR data</p>

<sup>4</sup> The amount of CDC funding utilized for HERR interventions with HIV-positive persons will be determined in partnership with the local health departments in April 2011. These interventions will be implemented in the highest prevalence areas of the Baltimore-Towson MSA in clinical and community settings.

**Required Intervention #14: “Implement linkage to other medical and social services for HIV-positive persons”**

<b>Goal 1:</b> Ensure that PLWH are linked to appropriate medical and social services.	<b>Funding sources:</b> HRSA
<b>Strategy 1:</b> Continue to require all HIV care providers to actively refer or link PLWH to other medical and social services as needed.	
<p><b>Objective 1:</b> Continue current mechanisms for ensuring that PLWH served by IDEHA-supported prevention and care programs are linked to appropriate medical care and support services.</p> <p><b>Objective 2:</b> Continue ongoing discussions with Baltimore City HUD/HOPWA grantees about funded activities and coordination of services for people living with HIV.</p>	<b>Data sources:</b> Ryan White HIV services data, Meeting notes

**Recommended Intervention #15: “Condom distribution for the general population”**

As described under Intervention 3, condom distribution to HIV prevention and care providers by IDEHA’s Materials Distribution Center is targeted to agencies who serve HIV-positive persons and persons at high risk for HIV infection. Condom distribution specifically targeted to the general population is not planned as part of the Baltimore-Towson MSA ECHPP.

Given our research into the costs of developing a “state branded” condom, we would suggest that AIDS.gov lead a national initiative to support each jurisdiction in developing its own “brand identity” condom. This approach would maximize limited state and local resources and more fully utilize the infrastructure and social media direction of AIDS.gov.

**Recommended Intervention #16: “HIV and sexual health communication or social marketing campaigns targeted to relevant audiences”**

<b>Goal 1:</b> Increase knowledge of HIV transmission and prevention strategies, and awareness of the availability of HIV prevention, care and treatment services among African American MSM and transgender persons.	<b>Funding sources:</b> DHAP-CDC
<b>Strategy 1:</b> Develop and implement the social marketing campaign, “HIV Stops with Me”.	
<p><b>Objective 1:</b> By March 31, 2011, establish a contract with Better World Advertising.</p> <p><b>Objective 2:</b> By April 30, 2011, convene a Community Advisory Board (CAB) comprised of persons living with HIV to partner in the development and implementation of the “HIV Stops With Me” social marketing campaign.</p> <p><b>Objective 3:</b> By May 31, 2011, recruit, screen, select, and train African American MSM and transgender persons as campaign spokespersons.</p> <p><b>Objective 4:</b> By June 30, 2011, identify the live and online locations where print and social media advertisements should be placed to best reach the target audiences.</p> <p><b>Objective 4:</b> By July 31, 2011, design, pilot, refine, and launch the campaign website.</p> <p><b>Objective 5:</b> By September 29, 2011, fully implement the campaign.</p>	<b>Data sources:</b> Contract progress reports

**Recommended Intervention #17: “Clinic-wide or provider-delivered evidence-based HIV prevention interventions for HIV-positive patients and patients at highest risk of acquiring HIV”**

<b>Goal 1:</b> Increase the percentage of PLWH who receive prevention interventions as part of HIV medical care.	<b>Funding sources:</b> TBD
<b>Strategy 1:</b> Explore the feasibility of piloting a provider-based HIV prevention intervention (e.g. Partnerships for Health).	
<p><b>Objective 1:</b> By June 30, 2011, request technical assistance from CDC and/or NASTAD on evidence-based clinic-wide or provider-delivered HIV prevention intervention for persons living with HIV.</p> <p><b>Objective 2:</b> By September, 29, 2011, identify potential partners for piloting and evaluating a clinic-wide or provider-delivered HIV prevention intervention for persons living with HIV.</p> <p><b>Objective 3:</b> By December 31, 2011, formalize plans and timelines for pilot/evaluation.</p>	<b>Data sources:</b> TBD

**Recommended Intervention #18: “Community interventions that reduce HIV risk”**

Current community-level interventions are described in the situational analysis. No new activities are proposed as part of the Baltimore-Towson MSA ECHPP.

**Recommended Intervention #19: “Behavioral risk screening followed by individual and group-level evidence-based interventions for HIV-negative persons at highest risk of acquiring HIV; particularly those in an HIV-serodiscordant relationship”**

<b>Goal 1:</b> Ensure that resources for behavioral interventions are targeted to persons living with HIV and HIV-negatives persons at highest risk for HIV transmission/infection.	<b>Funding sources:</b> CDC-DHAP
<p><b>Strategy 1:</b> Decrease resources allocated for HERR intervention with HIV-negative persons.</p> <p><b>Strategy 2:</b> Partner with HERR providers to more effectively target HERR interventions for HIV-negative clients to persons at highest risk for HIV infection.</p>	
<p><b>Objective 1:</b> By May 15, 2011, analyze client-level HERR data to assess the reach of current HERR interventions compared to the epidemiology of HIV in the Baltimore-Towson MSA.</p> <p><b>Objective 2:</b> By June 15, 2011, develop plans to decrease the percentage of current HERR programs serving HIV-negative persons from 80% to 50%.<sup>5</sup></p> <p><b>Objective 3:</b> By June 15, 2011, develop revised program plans to focus HERR interventions on populations and individuals at highest risk for HIV infection.</p> <p><b>Objective 4:</b> By July 1, 2011, implement revised contracts and agencies supported by IDEHA for HERR with high-risk negative clients.</p> <p><b>Objective 5:</b> By February 28, 2012, conduct semi-annual program performance reviews with all IDEHA-supported HERR program to assess reach to high-risk populations.</p>	<b>Data sources:</b> Budgets, Contracts, HERR data

<sup>5</sup> The amount of CDC funding utilized for HERR interventions with HIV-negative persons will be determined in partnership with the local health departments in April 2011. These interventions will be implemented in the highest prevalence areas of the Baltimore-Towson MSA.

**Recommended Intervention #19 (continued):**

<b>Goal 2:</b> Maximize the reach of HIV prevention interventions for HIV-negative persons at highest risk for HIV infection.	<b>Funding sources:</b> CDC-DHAP
<b>Strategy 1:</b> Explore the implementation of brief, evidence-based interventions with evidence of effectiveness for HIV-negative persons in high-risk communities and populations.	
<p><b>Objective 1:</b> By June 30, 2011, review available evidence-based clinic-wide HIV prevention intervention for persons at high-risk for HIV infection (e.g. Safe in the City).</p> <p><b>Objective 2:</b> By September, 29, 2011, identify potential partners for piloting and evaluating a clinic-wide HIV prevention intervention for persons at high-risk for HIV infection.</p> <p><b>Objective 3:</b> By December 31, 2011, formalize plans and timelines for pilot/evaluation.</p>	<b>Data sources:</b> TBD

**Recommended Intervention #20: “Integrated hepatitis, TB, and STD testing, partner services, vaccination, and treatment for HIV infected persons, HIV-negative persons at highest risk of acquiring HIV, and injection drug users according to existing guidelines”**

<b>Goal 1:</b> Increase the integration of HIV, STI, viral hepatitis, and TB screening and treatment.	<b>Funding sources:</b> CDC-DHAP, CDC-DSTDP
<b>Strategy 1:</b> Increase the integration of HIV, STI, TB and viral hepatitis screening and/or testing (as clinically indicated) in HIV testing programs and local health department STD clinics.	
<p><b>Objective 1:</b> By June 30, 2011, review client-level HIV and STI testing data to assess the percentage of high-risk clients who are receiving integrated HIV, STI and viral hepatitis testing as part of IDEHA-supported testing programs.</p> <p><b>Objective 2:</b> By July 30, 2011, review results with testing providers (e.g. local health departments, community health centers, community-based organizations) and develop plans to increase the provision of integrated HIV, STI and viral hepatitis testing.</p> <p><b>Objective 3:</b> By September 29, 2011, implement plans to increase the provision of integrated HIV, STI, TB and viral hepatitis screening and/or testing (as clinically indicated).</p>	<b>Data sources:</b> HIV testing data, STI testing data

**Recommended Intervention #21: “Targeted use of HIV and STD surveillance data to prioritize risk reduction counseling and partner services for persons with previously diagnosed HIV infection with a new STD diagnosis and persons with a previous STD diagnosis who receive a new STD diagnosis”**

<b>Goal 1:</b> Increase the utilization of HIV and STI surveillance data to target HIV testing, partner services and other prevention interventions.	<b>Funding sources:</b> CDC-DHAP
<p><b>Strategy 1:</b> Partner with local health departments, community-based organizations and other prevention providers to target HIV testing and behavioral interventions based on local epidemiology.</p> <p><b>Strategy 2:</b> Increase the provision of partner services for persons living with HIV with a new STI diagnosis through the implementation of PRISM.</p>	
<p><b>Objective 1:</b> By June 30, 2011, partner with prevention providers to utilize local epidemiological data (including newly developed GIS functionality) to target HIV testing and behavioral interventions to high prevalence/incidence areas and populations.</p> <p><b>Objective 2:</b> By November 15, 2011, begin utilizing PRISM, an integrated HIV/STI data system, to initiate partner services for persons living with HIV with a new STI diagnosis.<sup>6</sup></p>	<b>Data sources:</b> EHARS, HIV/STI partner services data

<sup>6</sup> Currently, EHARS record searches are manually conducted for syphilis cases. The identification of new gonorrhea and chlamydia infections among PLWH relies on the client self-reporting their HIV status to the provider at the time of diagnosis. The record search functionality in PRISM will enhance our ability to identify co-morbidity and initiate partner services follow-up for PLWH with a new STI diagnosis.

**Recommended Intervention #22: “For HIV-negative persons at highest risk of acquiring HIV, broadened linkages to and provision of services for social factors impacting HIV incidence such as mental health, substance abuse, housing, safety/domestic violence, corrections, legal protections, income generation, and others”**

HIV prevention interventions include linkages to mental health services, substance abuse treatment and other social services as needed and feasible. No new activities are proposed as part of the Baltimore-Towson MSA ECHPP.

**Recommended Intervention #23: “Brief alcohol screening and interventions for HIV-positive persons and HIV-negative persons at highest risk of acquiring HIV”**

HIV prevention and care services include screening for alcohol and other substance use and referral for treatment as described in the situational analysis and as needed. No new activities are proposed as part of the Baltimore-Towson MSA ECHPP.

**Recommended Intervention #24: “Community mobilization to create environments that support HIV prevention by actively involving community members in efforts to raise HIV awareness, building support for and involvement in HIV prevention efforts, motivating individuals to work to end HIV stigma, and encouraging HIV risk reduction among their family, friends, and neighbors”**

Current community mobilization efforts are described in the situational analysis. No new activities are proposed as part of the Baltimore-Towson MSA ECHPP.

## Baltimore-Towson MSA ECHPP National Strategic Goals Tool

### Reducing New HIV Infections

1. Reduce the annual number of new HIV infections by 25% and reduce the HIV transmission rate by 30%

Reducing the annual number of new HIV infections by 25% and HIV transmission rate by 30% in the Baltimore-Towson MSA will require comprehensive strategies to increase the number of persons living with HIV (PLWH) who are aware of their HIV serostatus and are engaged in ongoing, high-quality HIV medical care, and reduce high-risk behaviors among PLWH and HIV-negative persons at high risk for HIV infection. Based on the situational analysis and mathematical modeling conducted as part of the Baltimore-Towson MSA ECHPP process, Maryland will increase implementation of the following interventions/public health strategies: routine HIV screening in clinical settings; targeted HIV testing in non-clinical settings; initial and ongoing HIV/STI partner services; activities to support linkage to care, retention in care, and adherence to antiretroviral treatment; and risk reduction interventions for PLWH. Maryland will also increase condom distribution targeted to PLWH and persons at highest risk for HIV infection in the Baltimore-Towson MSA, and social marketing efforts with an emphasis on targeting African American MSM and transgender persons.

Knowledge of serostatus and engagement in HIV care have a significant impact on preventing new infections by decreasing risk behaviors among PLWH and decreasing viral load. Routine HIV screening in clinical settings will be increased through capacity building to promote the integration of HIV testing into routine medical care and substance abuse treatment services, technical assistance to establish protocols for reimbursement for routine HIV testing by third party payers, and collaboration with federal, state and local partners to develop system-wide changes in HIV testing. Targeted HIV testing in non-clinical settings will be enhanced by increasing utilization of epidemiological data and program monitoring to ensure that HIV testing programs are targeted to the geographic areas with the greatest burden of disease and the populations at highest risk for HIV transmission or infection. Non-clinical testing programs will also be expanded by funding additional community-based organizations for testing among the populations at greatest risk for HIV infection in the Baltimore-Towson MSA. Partner services ensures that the persons at highest risk for HIV infection (i.e. the sexual and needle-sharing partners of persons living with HIV) are notified of their potential exposure, provided provide access to HIV/STD testing, and linked to prevention, care and support services. HIV/STI partner services will be expanded by increasing funding for field and supervision staff, implementation of Maryland's Internet-Based Partner Services Program and continued efforts to more fully interface with private testing providers. Activities to support linkage to care, retention in care, and adherence to antiretroviral treatment will be increased through expanded availability of Ryan White linkage-to-care and case management services, enhanced coordination between HIV testing, HIV/STI partner services, linkage –to-care-programs and HIV care providers, and revised linkage-to-care protocols for IDEHA-supported HIV testing programs.

While knowledge of serostatus and medical treatment for HIV play a significant role in reducing HIV transmission, persons living with HIV who are aware of their serostatus and engage in high-risk behaviors have the highest transmission rate (18.7 for the Baltimore-Towson MSA<sup>7</sup>). While these individuals represent a small percentage of PLWH, interventions to support high-risk persons living with HIV in reducing their unsafe sexual and needle-sharing behaviors can significantly decrease new

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<sup>7</sup> Transmission rates for the Baltimore-Towson MSA were estimated as part of the mathematical modeling conducted in partnership with Dr. Holtgrave and his team at the Johns Hopkins Bloomberg School of Public Health.

infections and improve health outcomes for PLWH. In addition to reviewing the current HIV prevention portfolio and reallocating existing HERR resources for PLWH programming, IDEHA will be working with the robust and collaborative care service delivery system in the Baltimore-Towson MSA to expand the provision of risk assessment and risk reduction interventions for PLWH in partnership with HIV care providers. As a first step, IDEHA will be partnering with an academic entity to review national best practices for the integration of prevention interventions into HIV medical care and support services, and assess current provider practices in the Baltimore-Towson MSA. Based on the findings of the review and assessment, we will develop plans to increase the integration of prevention in HIV care settings through training and technical assistance to HIV care and support staff. IDEHA and the Baltimore City Health Department (the recipient of Ryan White Part A funds for the Baltimore EMA) will also be working with the HRSA HIV/AIDS Bureau, the HRSA Bureau of Primary Health Care, and the AETCs to increase the integration of prevention in all HIV care settings, regardless of funding source.

Mathematical modeling to maximize the number of HIV infections prevented in the Baltimore-Towson MSA indicates that there are insufficient resources available to achieve the NHAS prevention goals. Therefore, current resources must be focused on the interventions that can have the greatest impact on reducing new infections by increasing the number of PLWH who are aware of their serostatus and are engaged in HIV medical care, and decreasing high-risk behaviors among PLWH. In order to increase HIV testing, HIV/STI partner services and behavioral interventions for high-risk PLWH, resources for behavioral interventions for HIV-negative persons will need to be decreased and redirected. However, due to the high rates of infection among communities in Baltimore City and the capacity of local health departments and community based organization to deliver evidence-based risk reduction interventions, IDEHA will continue to invest some resources for HERR intervention with high-risk negative clients. These interventions will be implemented in the highest prevalence areas of the Baltimore-Towson MSA with communities with the highest rates of HIV infection (e.g. African American MSM, active substance users, heterosexual men and women at greatest risk of HIV infection).

Across all prevention interventions, Maryland plans to increase the utilization of epidemiological data to ensure that HIV prevention programs are targeted to the geographic areas with the greatest burden of disease and the populations at highest risk for HIV transmission or infection. Maryland will also continue to enhance collaboration between HIV prevention and care, and significantly increase partnerships across funding sources to ensure effective coordination of services and leverage additional resources.

#### Baseline and Target Measures for the Baltimore-Towson MSA

The current CDC methodology for estimating new HIV infections (incidence) is not available for the Baltimore-Towson MSA. A measurable proxy for new HIV infections is new HIV diagnoses, assuming no changes in HIV detection rates, in the surveillance reporting system, or in the underlying epidemic curve. However, beginning in 2007 the Expanded HIV Testing Initiative increased publicly-funded HIV testing, targeting minority populations in the Baltimore-Towson MSA through testing in emergency departments and outreach programs, resulting in a 50% increase in the number of seropositives detected by publically-funded testing programs. Furthermore, the recent 2007 change in the Maryland HIV reporting laws, which converted reporting from code-based to name-based, extended HIV reporting requirements to physicians and inpatient health care facilities, and extended CD4 reporting from less than 200 cells/ $\mu$ l to all results, has produced artificially high numbers of new HIV diagnoses in 2007 and 2008 and an artificial upward trend in new HIV diagnoses from 2001 through 2008. This upward trend is likely due to a bias in available surveillance information towards more recent diagnosis data and not necessarily the earliest diagnosis data. Under the previous code-based reporting system of HIV positive test results by laboratories, the Baltimore-Towson MSA was experiencing an average of 1,327 new adult/adolescent

HIV diagnoses per year with no apparent change in direction over the period 2002-2007, suggesting that the underlying epidemic curve may be stable. Therefore, our best estimate of the annual number of new adult/adolescent HIV infections is 1,327, based on the 2002-2007 code-based new diagnoses.

According to our previous preliminary estimates, reducing the estimated incidence by 25% in the Baltimore-Towson MSA would produce a new target of 995 new adult/ adolescent HIV diagnoses by 2015.

The CDC requires that new HIV surveillance systems have four full years of data before the data are considered stable enough to generate estimates, and so Maryland should be able to measure this target by 2012. However, if the proposed activities to enhance HIV diagnosis and increase the proportion of persons who are aware of their HIV infection are successful, they will result in increases in new HIV diagnoses, making this measure an inadequate proxy for new HIV infections.

The HIV transmission rate is calculated by dividing HIV incidence by HIV prevalence. As discussed, we do not have a direct measure of HIV incidence for the MSA and new HIV diagnoses may not be a very good proxy measure. While there is a national estimate for HIV prevalence, there are not estimates using that methodology for MSAs. The available proxy measure is living reported cases of HIV infection. This measure will be missing those who are infected and undiagnosed, as well as those who are diagnosed but unreported. The national estimate for those who are infected and undiagnosed is 21% and following the recent transition from code-based to name-based reporting, it is possible that as many as 15% of the diagnosed are unreported. Using the estimate for new adult/adolescent HIV diagnoses described above (995) and the number of living reported adult/adolescent cases of HIV infection on 12/31/2009 using data as reported through 12/31/2010 (17,048), adjusted for undiagnosed and unreported as described above (25,388) produces an estimated HIV transmission rate for 2009 of 5.2%.

Reducing the estimated transmission rate by 30% would produce a new target of 3.7 new adult/adolescent HIV diagnoses per estimated 100 adult/adolescent HIV prevalent cases by 2015.

2. Increase the percentage of people living with HIV who know their serostatus to 90%
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Increasing the percentage of people living with HIV who know their serostatus to 90% will require expansion of routine HIV screening in clinical settings, targeted HIV testing in non-clinical settings; and HIV/STI partner services. Routine HIV screening in clinical settings will be increased through capacity building to promote the integration of HIV testing into routine medical care and substance abuse treatment services, technical assistance to establish protocols for reimbursement for routine HIV testing by third party payers, and collaboration with federal, state and local partners to develop system-wide changes in HIV testing. Targeted HIV testing in non-clinical settings will be enhanced by increasing utilization of epidemiological data and program monitoring to ensure that HIV testing programs are targeted to the geographic areas with the greatest burden of disease and the populations at highest risk for HIV transmission or infection. Non-clinical testing programs will also be expanded by funding additional community-based organizations for testing among the populations at greatest risk for HIV infection in the Baltimore-Towson MSA. HIV/STI partner services will be expanded by increasing funding for field and supervision staff, implementation of Maryland's Internet-Based Partner Services Program and continued efforts to more fully interface with private testing providers.

Baseline and Target Measures for the Baltimore-Towson MSA

The national estimate for the percentage of people living with HIV who know their serostatus is 79% and was developed by dividing reported cases by the national estimate of HIV prevalence. There are not

currently similar MSA-level estimates of HIV prevalence or of the percentage of people living with HIV who know their serostatus.

Among adult/adolescent residents of the Baltimore-Towson MSA newly diagnosed with HIV infection in 2009, 27% had a reported AIDS diagnosis in the 12 months following their HIV diagnosis, using data as reported through 12/31/2010, suggesting that the 79% national estimate of people living with HIV who know their serostatus may be too high for this population. Higher percentages of people newly diagnosed with HIV infection who had an AIDS diagnosis within 12 months were observed among race/ethnicities other than non-Hispanic whites and non-Hispanic blacks.

Data from the National HIV Behavioral Surveillance System for samples of adult residents of the Baltimore-Towson MSA in populations at risk for HIV infection found that only 26% of the HIV positive men who have sex with men were aware of their serostatus (2008), that 51% of the HIV positive injection drug users were aware of their serostatus (2009), and that 18% of the HIV positive at risk heterosexuals were aware of their serostatus (2007, although there were few HIV positives, 11), again suggesting that the 79% national estimate of people living with HIV who know their serostatus may be too high for the Baltimore-Towson MSA.

3. Increase the percentage of people newly diagnosed with HIV infection who have a CD4 count of 200 cells/ $\mu$ l or higher by 25%

Increasing the percentage of people newly diagnosed with HIV who have a CD4 count of 200 cells/ $\mu$ l or higher by 25% will require expansion of routine HIV screening in clinical settings, targeted HIV testing in non-clinical settings; and HIV/STI partner services to increase early diagnosis of HIV infection. Routine HIV screening in clinical settings will be increased through capacity building to promote the integration of HIV testing into routine medical care and substance abuse treatment services, technical assistance to establish protocols for reimbursement for routine HIV testing by third party payers, and collaboration with federal, state and local partners to develop system-wide changes in HIV testing. Targeted HIV testing in non-clinical settings will be enhanced by increasing utilization of epidemiological data and program monitoring to ensure that HIV testing programs are targeted to the geographic areas with the greatest burden of disease and the populations at highest risk for HIV transmission or infection. Non-clinical testing programs will also be expanded by funding additional community-based organizations for testing among the populations at greatest risk for HIV infection in the Baltimore-Towson MSA. HIV/STI partner services will be expanded by increasing funding for field and supervision staff, implementation of Maryland's Internet-Based Partner Services Program and continued efforts to more fully interface with private testing providers.

#### Baseline and Target Measures for the Baltimore-Towson MSA

Among adult/adolescent residents of the Baltimore-Towson MSA newly diagnosed with HIV infection in 2009, 62% had a reported CD4 test that was performed in the 12 months following their HIV diagnosis, and 67% of those with a test had a CD4 count of 200 cells/ $\mu$ l or higher, using data as reported through 12/31/2010. Lower percentages of adult/adolescents newly diagnosed with HIV infection who have a CD4 count of 200 cells/ $\mu$ l or higher were observed among Hispanics. Increasing the observed percentage by 25% would produce a new target of 84% of adult/adolescents newly diagnosed with HIV infection who have a CD4 count of 200 cells/ $\mu$ l or higher by 2015.

Due to the recent 2007 change in the Maryland HIV reporting laws, which converted reporting to name-based and extended CD4 reporting from less than 200 cells/ $\mu$ l to all results, CD4 test reporting was likely

to be incomplete in 2009. Efforts are underway to increase the completeness of laboratory reporting through increased use of electronic laboratory reporting and by establishing laboratory reporting as part of the developing statewide health information exchange (HIE) for sharing electronic health records among providers. Increased reporting of CD4 test results will improve the accuracy of the estimates of this measure, but it is unknown whether this will affect the magnitude of the estimates of this measure.

4. Reduce the proportion of MSM who reported unprotected anal intercourse during their last sexual encounter with a partner of discordant or unknown HIV status by 25%

To reduce the proportion of MSM who reported unprotected anal intercourse during their last sexual encounter with a partner of discordant or unknown HIV status by 25%, Maryland will expand routine HIV screening in clinical settings, targeted HIV testing in non-clinical settings and HIV/STI partner services to increase knowledge of serostatus; risk reduction interventions for PLWH and high-risk HIV negative clients; condom distribution targeted to PLWH and persons at highest risk for HIV infection; and social marketing efforts. These activities are described under goal 1. Community level interventions targeted to African American MSM in the Baltimore-Towson MSA will also be continued.

#### Baseline and Target Measures for the Baltimore-Towson MSA

There is no one measure of the proportion of MSM who reported unprotected anal intercourse during their last sexual encounter with a partner of discordant or unknown HIV status in the Baltimore-Towson MSA. Data from the National HIV Behavioral Surveillance System for a 2008 sample of adult residents of the Baltimore-Towson MSA that were MSM found high rates of unprotected anal intercourse, but low rates among discordant partners. Overall, 41% of men reported having unprotected anal intercourse with a male partner. However, only 14% of men who knew they were HIV positive reported having unprotected insertive anal intercourse with a male partner who was HIV negative or of unknown HIV status, and only 7% of men who were HIV negative or did not know they were HIV positive reported having unprotected receptive anal intercourse with a male partner who was HIV positive or of unknown HIV status.

Decreasing the observed percentages by 25% would produce new targets of 10% of men who knew they were HIV positive reporting having unprotected insertive anal intercourse with a male partner who was HIV negative or of unknown HIV status, and 5% of men who were HIV negative or did not know they were HIV positive reporting having unprotected receptive anal intercourse with a male partner who was HIV positive or of unknown HIV status by 2015.

5. Reduce the proportion of IDU at risk for transmission/acquisition of HIV by XX% [Indicator TBD pending DHAP strategic plan]

To reduce the proportion of IDU at risk for transmission/acquisition of HIV, Maryland will expand routine HIV screening in clinical settings, targeted HIV testing in non-clinical settings and HIV/STI partner services to increase knowledge of serostatus; and risk reduction interventions for PLWH and high-risk HIV negative clients. These activities are described under goal 1. Maryland will also continue to support the Baltimore City Needle Exchange Program and explore the implementation of pharmacy-based syringe exchange to increase the availability of sterile syringes. Finally, Maryland will continue partnerships with the Maryland Alcohol Abuse Administration and Baltimore Substance Abuse Services, Inc. to integrate HIV testing and risk reduction interventions into substance abuse treatment services in the Baltimore-Towson MSA.

### Baseline and Target Measures for the Baltimore-Towson MSA

There were an estimated 40,306 injection drug users (IDU) living in the Baltimore-Towson MSA during 1998 (Friedman, Journal of Urban Health, 2004). Presumably almost all of these IDU were adults and we assume that there has been no change in the IDU population over time. Applying the proportion of living reported adult/adolescent HIV cases in the Baltimore-Towson MSA with a reported exposure category that were attributed to IDU (43%) to the estimated prevalence of adult/adolescents living with HIV in the MSA at the end of 2009 (17,048) provides an estimate of 7,360 HIV positive IDU. The HIV positive IDU represent 18% of all IDU in the MSA and are the pool available to transmit HIV. The remaining 82% (32,946) of uninfected IDU are the pool available for acquisition of HIV.

The proportion of new adult/adolescent HIV diagnoses in the Baltimore-Towson MSA attributed to IDU has declined from its peak in 1992 at 60% to a low of 23% in 2009, using data as reported through 12/31/2010. The Baltimore City Health Department's syringe exchange program began distributing clean needles to IDUs in 1994. In addition to a declining number and proportion of new adult/adolescent HIV diagnoses attributed to IDU, the new IDU HIV diagnoses have been aging. The proportion of new IDU HIV diagnoses that were age 50+ increased from 7% in 1994 to 33% in 2009 and the proportion of living IDU HIV cases that were 50+ increased from 4% in 1994 to 53% in 2009.

6. Decrease the number of perinatally acquired pediatric HIV cases by 25%
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To decrease the number of perinatally acquired pediatric HIV cases by 25%, Maryland will expand current efforts to ensure that all perinatal providers are aware of the Maryland law for HIV testing of pregnant women and clinical recommendations for providing these essential testing services. Additionally, due to the percentage of perinatal infections among women who are becoming infected with HIV during pregnancy, Maryland will develop and disseminate additional guidelines to perinatal providers and labor and delivery hospitals on the need for repeat HIV testing in the third trimester and during labor and delivery for high-risk pregnant women. In addition to the expanded activities described above, IDEHA will continue the following activities to reduce mother-to-child HIV transmission in the Baltimore-Towson MSA: Outreach and HIV/STI partner services to provide HIV testing to high-risk women and connect pregnant women to prenatal care; Provision of comprehensive HIV treatment, care and support to HIV-positive pregnant women through the Maryland Ryan White Part D Network; and Collaboration with the Family Health Administration, the RPAG and the Maryland Ryan White Part D Network to reduce barriers to the prevention of mother-to-child transmission, such as maternal mental health and substance use issues.

### Baseline and Target Measures for the Baltimore-Towson MSA

From 2005 through 2010, 886 investigations of births of HIV exposed infants and their mothers were completed in Maryland under the Enhanced Perinatal Surveillance (EPS) project. On average, there were 174 perinatal HIV exposures per year (2005-2009). Of the 886 exposures investigated, 24 perinatal HIV transmission cases have been identified and confirmed, a perinatal HIV transmission rate of 2.7%. On average, there were 5 perinatal HIV transmission cases per year (2005-2009). The majority of the perinatal HIV transmission cases were residents of the Baltimore-Towson MSA (75%). Half of the mothers of the perinatal HIV transmission cases reported some form of substance abuse with 78% of the positive toxicology screens testing positive for cocaine. Seventeen percent of the mothers did not receive any prenatal care during the pregnancy. Over half of the mothers were known to be positive before the pregnancy, while 13% were diagnosed during the pregnancy, 8% during labor and delivery, and 25% after the child's birth. Almost all mothers that received prenatal care received an HIV test during the first trimester, indicating that several of the mothers seroconverted during pregnancy.

Decreasing the observed number by 25% would produce a new target of 4 perinatally acquired pediatric HIV cases per year by 2015.

### **Increasing Access to Care and Improving Health Outcomes for People Living with HIV**

#### **7. Reduce AIDS diagnoses by 25%**

To reduce AIDS diagnoses by 25%, Maryland will expand routine HIV screening in clinical settings, targeted HIV testing in non-clinical settings, and HIV/STI partner services to increase early diagnosis of HIV infection; increase linkage to care of newly diagnosed HIV infections through expanded linkage programs and HIV partner services; expand efforts to maintain persons with HIV in HIV care, thereby increasing the proportion of infected people with undetectable viral loads and delaying disease progression; and increase efforts to re-engage persons with HIV infection in HIV care, thereby increasing the proportion of infected people with undetectable viral loads and delaying disease progression.

Maryland state law codifies the responsibilities of a medical provider who finds an HIV positive individual to make appropriate referrals for HIV care services. All HIV-positive clients who are served by HIV testing programs supported by Maryland DHMH are referred and linked to care through direct linkage to an onsite Infectious Disease or HIV clinic, active referral to the county health department's HIV clinic, or active referral to another HIV medical provider chosen by the client. For rapid testing programs, at the time of the initial rapid HIV test, the HIV tester makes a follow-up appointment with an HIV medical provider for clients that test preliminary positive. During that appointment, the client receives their confirmatory result and is immediately connected to an HIV medical care provider. If the client does not return for their confirmatory test result, DIS assist HIV testing programs with the provision of post-test counseling and linkage to care.

Linkage-to-care staff maintains contact with newly identified HIV positive individuals referred into Ryan White funded programs to ensure the client has attended at least two clinical visits prior to closing the client's case. Additionally, when HIV testing staff and DIS, funded or supported by IDEHA, identify new HIV-positive individuals through their testing activities, they are required to follow up with the client and/or care provider to verify and document the client has attended their first HIV medical appointment. Once a client has been referred to a Ryan White funded agency, the client engagement and treatment adherence strategies required of all funded vendors are implemented.

The State of Maryland has a strong HIV care delivery system, including a safety net system of care provided through Ryan White funds. Maryland has been at the forefront nationally of efforts to implement health care reform and to create a "culture of coverage/care" so that individuals expect to and are expected to participate in the health care system. There are no waiting lists for any HIV care services or for the Maryland AIDS Drug Assistance Program (MADAP). MADAP provides free access to 193 medications for people living with HIV with incomes up to 500% of the federal poverty level.

#### Baseline and Target Measures for the Baltimore-Towson MSA

The number of adult/adolescent HIV cases with a reported AIDS diagnosis (new AIDS diagnoses) in residents of the Baltimore-Towson MSA has been declining since 2004, during a period of rising HIV prevalence. The number of new AIDS diagnoses in 2008 was 575 and in 2009, which may still reflect underreporting, was 432. The rate of new AIDS diagnoses divided by the total living adult/adolescent HIV cases, a proxy for prevalence, declined from 7.6% in 2004 to 3.5% in 2008 and 2.5% in 2009.

Among the new adult/adolescent AIDS diagnoses, the percent that had been diagnosed with HIV in the 12 months prior to their AIDS diagnosis was 51%. This suggests that many of the AIDS diagnoses were diagnosed with HIV too late and therefore did not receive sufficient treatment to prevent AIDS.

Reducing the observed number for 2008 by 25% would produce a new target of 431 new adult/adolescent AIDS diagnoses by 2015.

8. Increase the percentage of persons diagnosed with HIV who are linked to clinical care as evidenced by having a CD4 count or viral load measure within 3 months of HIV diagnosis to 85%.

To increase the percentage of persons diagnosed with HIV who are linked to clinical care as evidenced by having a CD4 count or viral load measure within 3 months of HIV diagnosis, activities to support linkage to care will be increased through expanded availability of Ryan White linkage-to-care and case management services, enhanced coordination between HIV testing, HIV/STI partner services, linkage – to-care-programs and HIV care providers, and revised linkage-to-care protocols for IDEHA-supported HIV testing programs.

As described under goal 7, it is critical to effectively link all HIV positive individuals to care. Linkage-to-care staff maintains contact with newly identified HIV-positive individuals referred into Ryan White funded programs to ensure the client has attended at least two clinical visits prior to closing the client's case. Additionally, when HIV testing staff and DIS, funded or supported by IDEHA, identify new HIV-positive individuals through their testing activities, they are required to follow up with the client and/or care provider to verify and document the client has attended their first HIV medical appointment. Once a client has been referred to a Ryan White funded agency, the client engagement and treatment adherence strategies required of all funded vendors are implemented.

#### Baseline and Target Measures for the Baltimore-Towson MSA

Among adult/adolescent residents of the Baltimore-Towson MSA newly diagnosed with HIV infection in 2009, 57% had a reported CD4 or viral load test that was performed in the 3 months following their HIV diagnosis, using data as reported through 12/31/2010. Lower percentages of adult/adolescents newly diagnosed with HIV infection who have a CD4 or viral load test were observed among residents of Baltimore City and non-Hispanic blacks.

Due to the recent 2007 change in the Maryland HIV reporting laws, which converted reporting to name-based, extended CD4 reporting from less than 200 cells/ $\mu$ l to all results, and clarified that HIV reporting included all HIV viral load results, CD4 and viral load test reporting was likely to be incomplete in 2009. Efforts are underway to increase the completeness of laboratory reporting through increased use of electronic laboratory reporting and by establishing laboratory reporting as part of the developing statewide health information exchange (HIE) for sharing electronic health records among providers. Increased reporting of CD4 and viral load test results will improve the accuracy and increase the estimates of this measure.

9. Increase by 10% the percentage of HIV-diagnosed persons in care whose most recent viral load test in the past 12 months was undetectable

Undetectable viral loads are the result of appropriate and consistent antiretroviral treatment. The State of Maryland has a strong HIV care delivery system, including access to antiretroviral medications through a state-funded pharmacy assistance program (PAC), a high risk insurance plan for those with

pre-existing conditions (the Maryland Health Insurance Program), Medicaid, and the Maryland AIDS Drug Assistance Program. There are no waiting lists for any of these pharmacy assistance and insurance programs. As a result, any person with HIV with an income up to 500% of the federal poverty level has access to all available antiretroviral medications.

While accessibility of medications is critical, the Ryan White care system in Maryland also funds a number of services that assist clients in maintaining adherence to their medical care and medication regimens. These services include mental health, substance abuse treatment, psychosocial support, case management and treatment adherence.

To address the need for increased collaboration between HIV prevention and Ryan White-funded care services, IDEHA has initiated monthly meetings that include statewide HIV prevention staff, statewide HIV surveillance staff, representatives from Ryan White Parts B and D from the Center for HIV Care Services, and staff from the Baltimore City Health Department (BCHD), representing both Part A for the Baltimore EMA and the prevention programs in Baltimore City. The meetings provide a forum to share information on existing services and initiatives, and to explore opportunities for increase coordination and collaboration between HIV prevention and care services.

Monitoring results of this goal are challenging given the complexity of health care records and lab reporting. Certain data is required of all Ryan White-funded vendors, but much of the HIV care within Maryland is funded through Medicaid, Medicare and private insurance. While Maryland law requires full lab report on viral loads and CD4s, the State does not yet receive full reporting on all cases. The State has initiatives on health information exchange and electronic health records that are promising and moving forward, but it will be later this year before Maryland is fully up and running with better electronic reporting.

#### Baseline and Target Measures for the Baltimore-Towson MSA

Among adult/adolescent residents of the Baltimore-Towson MSA reported to be living with HIV infection on 12/31/2009 that had a reported HIV viral load test performed in 2009 (a proxy for being in care), 11% had an undetectable viral load result, using data as reported through 12/31/2010. Lower percentages of adult/adolescents living with HIV infection who had an undetectable recent viral load result were observed among non-Hispanic blacks and Hispanics.

Increasing the observed percentage by 10% would produce a new target of 12% of adult/adolescents living with HIV infection and with a recent viral load test that had an undetectable viral load result 2015.

Due to the recent 2007 change in the Maryland HIV reporting laws, which converted reporting to name-based and clarified that HIV reporting included all HIV viral load results, viral load test reporting was likely to be incomplete in 2009. Efforts are underway to increase the completeness of laboratory reporting through increased use of electronic laboratory reporting and by establishing laboratory reporting as part of the developing statewide health information exchange (HIE) for sharing electronic health records among providers. Increased reporting of viral load test results will improve the accuracy of the estimates of this measure, but it is unknown whether this will affect the magnitude of the estimates of this measure.

10. Reduce the percentage of HIV-diagnosed persons in care who report unprotected anal or vaginal intercourse during the last 12 months with partners of discordant or unknown HIV status by 33%

While knowledge of serostatus and medical treatment for HIV play a significant role in reducing HIV transmission, persons living with HIV who are aware of their serostatus and engage in high-risk behaviors have the highest transmission rate (18.7 for the Baltimore-Towson MSA<sup>8</sup>). While these individuals represent a small percentage of PLWH, interventions to support high-risk persons living with HIV in reducing their unsafe sexual and needle-sharing behaviors can significantly decrease new infections and improve health outcomes for PLWH. In addition to reviewing the current HIV prevention portfolio and reallocating existing HERR resources for PLWH programming, IDEHA will be working with the robust and collaborative care service delivery system in the Baltimore-Towson MSA to expand the provision of risk assessment and risk reduction interventions for PLWH in partnership with HIV care providers. As a first step, IDEHA will be partnering with an academic entity to review national best practices for the integration of prevention interventions into HIV medical care and support services, and assess current provider practices in the Baltimore-Towson MSA. Based on the findings of the review and assessment, we will develop plans to increase the integration of prevention in HIV care settings through training and technical assistance to HIV care and support staff. IDEHA and the Baltimore City Health Department (the recipient of Ryan White Part A funds for the Baltimore EMA) will also be working with the HRSA HIV/AIDS Bureau, the HRSA Bureau of Primary Health Care, and the AETCs to increase the integration of prevention in all HIV care settings, regardless of funding source.

Baseline and Target Measures for the Baltimore-Towson MSA

There are not currently any surveillance or clinical data reporting systems that measure this outcome on a regular basis or on the whole population.

The Medical Monitoring Project (MMP) selected a representative sample of HIV diagnosed adults in care in Maryland during 2007 and 2008. The interview component included questions on unprotected anal and vaginal intercourse with their most recent partner during the last 12 months, including information on their HIV status. For females with male partners, 45% reported unprotected anal or vaginal intercourse with their recent discordant or unknown HIV status main partners. For males with female partners, 26% reported unprotected anal or vaginal intercourse with their recent discordant or unknown HIV status main partners and 62% reported it with their casual partners. For males with male partners, 0% reported unprotected anal intercourse with their recent discordant or unknown HIV status main partners and 33% reported it with their casual partners.

The National HIV Behavioral Surveillance (NHBS) System collects data from samples of three at risk adult populations, MSM, IDU, and heterosexuals. The interview includes questions on unprotected anal and vaginal intercourse by type of partner (main or casual) and by knowledge of partner's serostatus, as well as a question on use of medical care. The rates of unprotected intercourse are high, but vary across population and type of partner. Most of the sampled HIV-diagnosed persons reported being in care, with 83% of MSM, 84% of IDU, and 91% of heterosexuals reporting a visit to a physician during the last 12 months. Among the HIV positive MSM, 41% reported having unprotected anal intercourse during the last 12 months.<sup>9</sup> Among the HIV positive IDU, 38% reported having unprotected vaginal intercourse with

<sup>8</sup> Transmission rates for the Baltimore-Towson MSA were estimated as part of the mathematical modeling conducted in partnership with Dr. Holtgrave and his team at the Johns Hopkins Bloomberg School of Public Health.

<sup>9</sup> Data for discordant partners to be added following additional data analysis.

their last heterosexual partner who was HIV negative or of unknown HIV status. Among the HIV positive heterosexuals (only 11 total), 63% reported having any unprotected vaginal intercourse with heterosexual partners during the last 12 months, all of whom were also reported to be HIV negative or of unknown HIV status.

11. By 2015, increase the proportion of Ryan White HIV/AIDS Program clients who are in continuous care (at least two visits for routine HIV medical care in 12 months at least 3 months apart) from 73% to 80%.

The Ryan White care system in Maryland funds a number of services that assist clients in maintaining adherence to their medical care and medication regimens. These services include mental health, substance abuse treatment, psychosocial support, case management and treatment adherence. Activities to support retention in care will be increased through expanded availability of Ryan White linkage-to-care and case management services, enhanced coordination between HIV testing, HIV/STI partner services, linkage –to-care-programs and HIV care providers, and revised linkage-to-care protocols for IDEHA-supported HIV testing programs.

#### Baseline and Target Measures for the Baltimore-Towson MSA

There are two aspects to this goal: the proportion of Ryan White clients who are in medical care, and the proportion of those in care that meets HRSA’s definition of “continuous care”. There is no one data element that shows the proportion of Ryan White clients who are in medical care. The annual data report shows which clients are receiving Ryan White funded medical care, but a number of clients who receive other services from Ryan White funded vendors receive medical services through other providers and funding streams (e.g. Medicaid). Clinical Quality Management reviews of Ryan White Part A HIV/AIDS Program clients receiving primary medical care services in the Baltimore-Towson MSA demonstrate that, in 2010, 90% of these clients received care that met the definition of being in continuous care (i.e., two or more medical visits in the previous 12 months, at least three months apart).

Our goal is to maintain the proportion of Ryan White clients receiving primary medical care services in the Baltimore MSA that meet the definition of being in continuous care at 90%.

12. By 2015, increase the proportion of Ryan White clients with permanent housing from 82% to 86%.

While the Ryan White care system provides assistance to individuals living with HIV to address their psychosocial needs, on-going rental assistance that would result in permanent housing is provided through the Housing Opportunities for People With AIDS (HOPWA) program, funded through HUD. IDEHA will continue to work to enhance its relationship with the Baltimore-Towson MSA HOPWA administrative agent regarding current housing initiatives with the hope of increasing the number of Ryan White clients with permanent housing.

#### Baseline and Target Measures for the Baltimore-Towson MSA

Data on the housing status of Ryan White clients is collected in an annual data report. The 2009 Ryan White annual data report showed that 79% of Ryan White clients in Maryland reported having permanent housing, which is lower than the national average. Our goal is to increase the proportion of Ryan White clients with permanent housing from 79% to 86%.

## Reducing HIV-Related Disparities

### 13. Increase the percentage of HIV-diagnosed gay and bisexual men with undetectable viral load by 20%.

Comprehensive medical and psychosocial services are available for persons living with HIV in the Baltimore-Towson MSA. These services positively impact client outcomes for HIV-diagnosed men who have sex with men (MSM). IDEHA recognizes the need to have care available that is culturally relevant to the populations served. IDEHA has worked to facilitate early diagnosis of MSM through partnerships with local health departments, community-based organizations, community health centers, substance abuse treatment facilities, agencies that work with MSM, and other agencies that provide services to high-risk clients. IDEHA also provides ongoing training opportunities for agencies and counselors who conduct HIV testing to increase skills for working with the MSM community and making appropriate referrals to ensure MSM clients are provided with culturally appropriate services. IDEHA has also implemented a collaborative Health Education/Risk Reduction, HIV testing, Partner Services and linkage to care MSM Referral Model in Suburban Maryland.

#### Baseline and Target Measures for the Baltimore-Towson MSA

Among adult/adolescent MSM residents of the Baltimore-Towson MSA reported to be living with HIV infection on 12/31/2009 that had a reported HIV viral load test performed in the last 12 months (a proxy for being in care), 7% had an undetectable viral load result, using data as reported through 12/31/2010.

Increasing the observed percentage by 20% would produce a new target of 9% of adult/adolescent MSM living with HIV infection and with a recent viral load test that had an undetectable viral load result 2015.

Due to the recent 2007 change in the Maryland HIV reporting laws, which converted reporting to name-based and clarified that HIV reporting included all HIV viral load results, viral load test reporting was likely to be incomplete in 2009. Efforts are underway to increase the completeness of laboratory reporting through increased use of electronic laboratory reporting and by establishing laboratory reporting as part of the developing statewide health information exchange (HIE) for sharing electronic health records among providers. Increased reporting of viral load test results will improve the accuracy of the estimates of this measure, but it is unknown whether this will affect the magnitude of the estimates of this measure.

### 14. Increase the percentage of HIV-diagnosed Blacks with undetectable viral load by 20%

Using surveillance data reported through 12/31/2010, non-Hispanic blacks comprise 80% of living HIV cases in the Baltimore-Towson MSA. Therefore, the comprehensive efforts to support linkage to care, retention in care, and adherence to antiretroviral treatment previously described will contribute to increasing the percentage of HIV-diagnosed Blacks with undetectable viral load. These efforts will be increased through expanded availability of Ryan White linkage-to-care and case management services, enhanced coordination between HIV testing, HIV/STI partner services, linkage –to-care-programs and HIV care providers, and revised linkage-to-care protocols for IDEHA-supported HIV testing programs.

#### Baseline and Target Measures for the Baltimore-Towson MS

Among adult/adolescent non-Hispanic Black residents of the Baltimore-Towson MSA reported to be living with HIV infection on 12/31/2009 that had a reported HIV viral load test performed in the last 12

months (a proxy for being in care), 10% had an undetectable viral load result, using data as reported through 12/31/2010.

Increasing the observed percentage by 20% would produce a new target of 12% of adult/adolescent non-Hispanic Blacks living with HIV infection and with a recent viral load test that had an undetectable viral load result by 2015.

Due to the recent 2007 change in the Maryland HIV reporting laws, which converted reporting to name-based and clarified that HIV reporting included all HIV viral load results, viral load test reporting was likely to be incomplete in 2009. Efforts are underway to increase the completeness of laboratory reporting through increased use of electronic laboratory reporting and by establishing laboratory reporting as part of the developing statewide health information exchange (HIE) for sharing electronic health records among providers. Increased reporting of viral load test results will improve the accuracy of the estimates of this measure, but it is unknown whether this will affect the magnitude of the estimates of this measure.

#### 15. Increase the percentage of HIV-diagnosed Latinos with undetectable viral load by 20%

The comprehensive efforts to support linkage to care, retention in care, and adherence to antiretroviral treatment previously described will contribute to increasing the percentage of HIV-diagnosed Latinos with undetectable viral load. These efforts will be increased through expanded availability of Ryan White linkage-to-care and case management services, enhanced coordination between HIV testing, HIV/STI partner services, linkage –to-care-programs and HIV care providers, and revised linkage-to-care protocols for IDEHA-supported HIV testing programs. IDEHA recognizes the need to have care available that is culturally relevant to the populations served and requires all funded agencies to implement services in accordance with national Limited English Proficiency (LEP) policies and therefore accommodate the cultural and linguistic needs of targeted populations. IDEHA has worked to facilitate early diagnosis of Latinos through partnerships with local health departments, community-based organizations, community health centers, substance abuse treatment facilities, and other agencies that provide services to high-risk clients.

#### Baseline and Target Measures for the Baltimore-Towson MSA

Among adult/adolescent Hispanic residents of the Baltimore-Towson MSA reported to be living with HIV infection on 12/31/2009 that had a reported HIV viral load test performed in the last 12 months (a proxy for being in care), 9% had an undetectable viral load result, using data as reported through 12/31/2010.

Increasing the observed percentage by 20% would produce a new target of 11% of adult/adolescent Hispanics living with HIV infection and with a recent viral load test that had an undetectable viral load result 2015.

Due to the recent 2007 change in the Maryland HIV reporting laws, which converted reporting to name-based and clarified that HIV reporting included all HIV viral load results, viral load test reporting was likely to be incomplete in 2009. Efforts are underway to increase the completeness of laboratory reporting through increased use of electronic laboratory reporting and by establishing laboratory reporting as part of the developing statewide health information exchange (HIE) for sharing electronic health records among providers. Increased reporting of viral load test results will improve the accuracy of the estimates of this measure, but it is unknown whether this will affect the magnitude of the estimates of this measure.

16. Reduce the disparity in HIV incidence for Blacks versus Whites (Black:White ratio of new infections) by 25%; By 2015, reduce the disparity in HIV incidence for Hispanics versus Whites (Hispanic:White ratio of new infections) by 25%.

To reduce disparity in HIV incidence for Blacks and Hispanics versus white by 25%, Maryland will expand routine HIV screening in clinical settings, targeted HIV testing in non-clinical settings and HIV/STI partner services to increase knowledge of serostatus; risk reduction interventions for PLWH and high-risk HIV negative clients; condom distribution targeted to PLWH and persons at highest risk for HIV infection; and social marketing efforts. These activities are described under goal 1.

#### Baseline and Target Measures for the Baltimore-Towson MSA

The current CDC methodology for estimating new HIV infections (incidence) is not available for the Baltimore-Towson MSA. A measurable proxy for new HIV infections is new HIV diagnoses, assuming no changes in HIV detection rates, in the surveillance reporting system, or in the underlying epidemic curve. However, beginning in 2007 the Expanded HIV Testing Initiative publicly funded HIV testing, targeting minority populations in the Baltimore-Towson MSA through testing in emergency departments and outreach programs, resulting in a 50% increase in the number of seropositives detected by publically-funded testing programs. Furthermore, the recent 2007 change in the Maryland HIV reporting laws, which converted reporting from code-based to name-based, extended HIV reporting requirements to physicians and inpatient health care facilities, and extended CD4 reporting from less than 200 cells/ $\mu$ l to all results has produced artificially high numbers of new HIV diagnoses in 2007 and 2008 and an artificial upward trend in new HIV diagnoses from 2001 through 2008. This upward trend is likely due to a bias in available surveillance information towards more recent diagnosis data and not necessarily the earliest diagnosis data. Under the previous code-based reporting system of HIV positive test results by laboratories, the Baltimore-Towson MSA was experiencing an average of 1,327 new adult/adolescent HIV diagnoses per year with no apparent change in direction over the period 2002-2007, suggesting that the underlying epidemic curve may be stable. Therefore, our best estimate of the annual number of new adult/adolescent HIV infections is 1,327, based on the 2002-2007 code-based new diagnoses. By race/ethnicity the 1,327 new adult/adolescent HIV infections breakdown as follows, 39 Hispanic (39.5 per 100,000 population), 1,046 non-Hispanic black (135.9 per 100,000 population), and 204 non-Hispanic white (12.2 per 100,000 population) with rates calculated using the 2009 intercensal population estimates. Using these rates, the Black/White HIV incidence ratio was 11.1 and the Hispanic/White HIV incidence ratio was 3.2.

Reducing the disparity of Black and Hispanic to white HIV incidence rates by 25% would produce new targets of 8.3 for the Black/White ratio and 2.4 for the Hispanic/White ratio by 2015.

The CDC requires that new HIV surveillance systems have four full years of data before the data are considered stable enough to generate estimates, and so Maryland should be able to measure this target by 2012. However, if the proposed activities to enhance HIV diagnosis and increase the proportion of persons who are aware of their HIV infection are successful, they will result in increases in new HIV diagnoses, making this measure an inadequate proxy for new HIV infections.

17. Reduce the disparity in HIV incidence for MSM versus other adults in the United States by 25%.

To reduce disparity in HIV incidence for MSM versus other adults by 25%, Maryland will expand routine HIV screening in clinical settings, targeted HIV testing in non-clinical settings and HIV/STI partner services to increase knowledge of serostatus; risk reduction interventions for PLWH and high-risk HIV

negative clients; condom distribution targeted to PLWH and persons at highest risk for HIV infection; and social marketing efforts. These activities are described under goal 1. Community level interventions targeted to African American MSM in the Baltimore-Towson MSA will also be continued.

#### Baseline and Target Measures for the Baltimore-Towson MSA

The current CDC methodology for estimating new HIV infections (incidence) is not available for the Baltimore-Towson MSA. A measurable proxy for new HIV infections is new HIV diagnoses, assuming no changes in HIV detection rates, in the surveillance reporting system, or in the underlying epidemic curve. However, beginning in 2007 the Expanded HIV Testing Initiative increased publicly funded HIV testing, targeting minority populations in the Baltimore-Towson MSA through testing in emergency departments and outreach programs, resulting in a 50% increase in the number of seropositives detected by publically-funded testing programs. Furthermore, the recent 2007 change in the Maryland HIV reporting laws, which converted reporting from code-based to name-based, extended HIV reporting requirements to physicians and inpatient health care facilities, and extended CD4 reporting from less than 200 cells/ $\mu$ l to all results has produced artificially high numbers of new HIV diagnoses in 2007 and 2008 and an artificial upward trend in new HIV diagnoses from 2001 through 2008. This upward trend is likely due to a bias in available surveillance information towards more recent diagnosis data and not necessarily the earliest diagnosis data. Under the previous code-based reporting system of HIV positive test results by laboratories, the Baltimore-Towson MSA was experiencing an average of 1,327 new adult/adolescent HIV diagnoses per year with no apparent change in direction over the period 2002-2007, suggesting that the underlying epidemic curve may be stable. Therefore, our best estimate of the annual number of new adult/adolescent HIV infections is 1,327, based on the 2002-2007 code-based new diagnoses.

The percent of new adult/adolescent HIV diagnoses with a reported exposure category that are attributed to MSM has been increasing in the Baltimore-Towson MSA since 2001, from 16% of new diagnoses in 2001 to 38% in 2009. Using this percentage for 2009, there were an estimated 507 new adult/adolescent MSM HIV diagnoses in 2009, with the remaining 820 among other adult/adolescents. A recent article estimated the size of the adult MSM population in Maryland for 2007 at 137,697 (Lieb, Journal of Urban Health, 2009). Adjusting that MSM population estimate using the 2007 and 2009 intercensal population estimates for Maryland and the Baltimore-Towson MSA and the article's percents of MSM in urban and suburban areas, the estimated rates for MSM and other adult/adolescent new HIV infections were 401.7 per 100,000 population for adult/adolescent MSM and 38.9 per 100,000 population for other adult/adolescents, providing a MSM/Other HIV incidence ratio of 10.3.

Reducing the disparity of MSM to other adult/adolescents HIV incidence rates by 25% would produce a new target of 7.7 for the MSM/Other ratio by 2015.

The CDC requires that new HIV surveillance systems have four full years of data before the data are considered stable enough to generate estimates, and so Maryland should be able to measure this target by 2012. However, if the proposed activities to enhance HIV diagnosis and increase the proportion of persons who are aware of their HIV infection are successful, they will result in increases in new HIV diagnoses, making this measure an inadequate proxy for new HIV infections.

18. Ensure the percentage of persons diagnosed with HIV who have a CD4 count within 3 months of HIV diagnosis is 75% or greater for all racial/ethnic groups
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The comprehensive efforts to support linkage to care previously described will contribute to ensuring the percentage of persons diagnosed with HIV who have a CD4 count within 3 months of HIV diagnosis is

75% or greater for all racial/ethnic groups. These efforts will be increased through expanded availability of Ryan White linkage-to-care and case management services, enhanced coordination between HIV testing, HIV/STI partner services, linkage –to-care-programs and HIV care providers, and revised linkage-to-care protocols for IDEHA-supported HIV testing programs.

#### Baseline and Target Measures for the Baltimore-Towson MSA

Among adult/adolescent residents of the Baltimore-Towson MSA newly diagnosed with HIV infection in 2009, 50% had a reported CD4 that was performed in the 3 months following their HIV diagnosis, using data as reported through 12/31/2010. By race/ethnicity the rates are: 38% for Hispanics, 49% for non-Hispanic blacks, 56% for non-Hispanic whites, and 61% for all other races combined (total less than 25).

Due to the recent 2007 change in the Maryland HIV reporting laws, which converted reporting to name-based and extended CD4 reporting from less than 200 cells/ $\mu$ l to all results, CD4 test reporting was likely to be incomplete in 2009. Efforts are underway to increase the completeness of laboratory reporting through increased use of electronic laboratory reporting and by establishing laboratory reporting as part of the developing statewide health information exchange (HIE) for sharing electronic health records among providers. Increased reporting of CD4 test results will improve the accuracy and increase the estimates of this measure.