



House Bill 736

Electronic Health Records – Incentives for Health Care Providers – Regulations

A report prepared for
the Senate Finance Committee and
the House Health and Government Operations Committee

January 2013

Craig P. Tanio, M.D., Chair
Ben Steffen, Executive Director



Craig P. Tanio, M.D., Chair

Chief Medical Officer

JenCare Neighborhood Medical Centers

Garret A. Falcone, NHA, Vice Chair
Executive Director
Heron Point of Chestertown

Barbara Gill McLean, M.A.
Retired, Senior Policy Fellow
University of Maryland School of Medicine

Reverend Robert L. Conway
Retired Principal and Teacher
Calvert County Public School System

Kathryn L. Montgomery, Ph.D., RN, NEA-BC
Associate Dean
Strategic Partnerships & Initiatives
University of Maryland School of Nursing

John E. Fleig, Jr.
Director
UnitedHealthcare

Marilyn Moon, Ph.D.
Vice President and Director, Health Program
American Institutes for Research

Paul Fronstin, Ph.D.
Director, Health Research and
Education Program
Employee Benefit Research Institute

Darren W. Petty
Vice President
Maryland State and DC AFL-CIO
General Motors/United Auto Workers

Helene Grady
Associate Dean for Finance and Administration
Johns Hopkins University School of Nursing

Glenn E. Schneider, M.P.H., B.S.
Chief Program Officer
The Horizon Foundation

Kenny W. Kan, CPA, FSA & CFA
Senior Vice President/Chief Actuary
CareFirst BlueCross BlueShield

Adam J. Weinstein, M.D.
Medical Director
Nephrology and Transplant Services
Shore Health System

Robert Lyles, Jr., M.D.
Medical Director
LifeStream Health Center

Table of Contents

Executive Summary.....	1
Report Limitations.....	2
Introduction	2
Federal EHR Adoption Incentive Program.....	3
State-Regulated Payer EHR Adoption Incentive Program	4
Leading State EHR Adoption Initiatives	7
EHR Adoption – An Essential Component of Health Information Exchange	9
State-Regulated Payer EHR Incentive Program Options.....	11
Remarks.....	14
Appendix A: House Bill 706 (2009)	15
Appendix B: COMAR 10.25.16, Electronic Health Record Incentives	29
Appendix C: Md. Code Ann., Health-Gen. § 19-143	36
Appendix D: Hospital Data Submission to the Statewide HIE	40
Appendix E: Management Service Organizations.....	42
Appendix F: Medicare Meaningful Use Payments by State.....	43
Appendix G: Medicare and Medicaid EHR Incentives.....	45
Appendix H: REC Performance Goals and Achievements	46
Appendix I: State Health Information Technology Plan – Key Sections	47

Executive Summary

Md. Code Ann., Health-General § 19-143, enacted on May 19, 2009, is intended to expand the adoption of health information technology by requiring State-regulated payers (payers) to offer incentives for providers who use certified electronic health records (EHRs) that are capable of connecting to a health information exchange, among other things.¹ COMAR 10.25.16, *Electronic Health Record Incentives*, (regulation) adopted by the Maryland Health Care Commission (MHCC) in October 2011, supports the law by requiring payers to provide EHR adoption incentives to primary care practices.² Under current law, the MHCC is required, in consultation with stakeholders, to study whether the scope of the eligible providers who may receive incentives under the payer EHR adoption incentive program (program) should be expanded beyond primary care practices.³

The MHCC consulted with the EHR Adoption Incentive Workgroup, consisting of the Department of Health and Mental Hygiene; State-regulated payers (payers);⁴ MedChi, The Maryland State Medical Society; and the Chesapeake Information System for Our Patients (CRISP), in formulating three options for changes to the program. Option 1 maintains the existing program, and is favored by the payers as they generally felt that insufficient data currently exists on the program to justify an expansion of the program. Option 2 entails payers contributing a fixed payment amount to the program and relies on the Regional Extension Center (REC), operated by CRISP, to administer the program consistent with the method the REC currently uses to administer federal funds to assist primary care providers to adopt and achieve meaningful use of EHRs. Most stakeholders indicated that this approach merits additional consideration, as it would enable almost all physician practices to be eligible for the program, provide opportunity for payers to potentially reduce their financial contribution, and likely reduce the administrative work for payers and providers participating in the program. Option 3 expands the program to include select specialty care practices and could create a number of challenges around establishing the selection criteria and increasing payers' financial contribution.

The MHCC does not recommend changes to the regulation at this time. Data on the impact of the program will not be available until late in the first quarter of 2013. The MHCC plans to further explore the program options with the EHR Adoption Incentive Workgroup after completing an evaluation of the data.

¹ See Appendix A for House Bill 706 (2009).

² See Appendix B for COMAR 10.25.16, *Electronic Health Record Incentives*.

³ Md. Code Ann., Health-Gen. § 19-143. The law also requires the MHCC to report on its findings to the Senate Finance Committee and House Health and Government Operations Committee on or before January 1, 2013. See Appendix C.

⁴ Stakeholders included: Aetna, Inc.; CareFirst BlueCross BlueShield; Cigna HealthCare Mid-Atlantic; Coventry Health Care; Kaiser Permanente; the League of Life and Health Insurers of Maryland, and UnitedHealthcare, Mid-Atlantic Region.

Report Limitations

This report is aimed at studying whether the scope of providers that may receive incentives for electronic health record (EHR) adoption under COMAR 10.25.16, *Electronic Health Record Incentives* (regulation), should be expanded beyond primary care practices. The options included in the report are based on stakeholder recommendations as the data on the impact of the regulation will not be available from State-regulated payers (payers) until the first quarter of 2013. An impact analysis of the EHR adoption incentive program (program) options is not included in the report.

Introduction

EHR adoption is an essential component of health care reform⁵ and can improve the quality of care, increase productivity, and reduce health care costs. EHRs are longitudinal digital patient records that may include information such as demographics, progress notes, health problems, allergy and medication lists, vital signs, past medical history, immunizations, laboratory data and radiology reports. A fully integrated EHR system can automate and streamline a provider's workflow, generate a complete record of patient care across the continuum of care, and support other care-related activities by connecting systems to a health information exchange (HIE). An EHR that is connected with an HIE allows for the sharing of clinical information between providers in various health care delivery settings. Enhanced electronic access to patient information can eliminate paper chart chasing, prevent medical errors by providing more comprehensive records, improve clinical decision making, increase care coordination, facilitate referrals, and limit duplicative services through the electronic exchange of information.

Md. Code Ann., Health-Gen. § 19-143, enacted on May 19, 2009, aims to expand the adoption of health information technology (health IT) by requiring payers to offer incentives to providers who use certified EHRs that are capable of connecting to an HIE, among other things.⁶ The Maryland Health Care Commission (MHCC) worked with stakeholders in the development of the program and adopted regulation in October 2011 that outlines program requirements.⁷ Under the program, primary care practices may receive a cash incentive, or an agreed upon alternative incentive, for adopting an EHR and meeting certain program requirements.⁸ In 2011, House Bill 736, *Electronic Health Records – Incentives for Health Care Providers – Regulations* (HB 736) amended the statute,⁹ requiring the MHCC to study and submit its recommendations as to whether the scope of health care providers that may receive the incentives from payers should be expanded beyond primary care practices. The MHCC's recommendations are to be provided to the Senate Finance Committee and the House Health and Government Operations Committee on or before January 1, 2013.

Md. Code Ann., Health-Gen. § 19-143 establishes two additional requirements aimed at supporting the adoption of health IT. The statute requires the MHCC and the Health Services Cost Review

⁵ Public Law 111-148.

⁶ See Appendix A for House Bill 706 (2009).

⁷ COMAR 10.25.16, *Electronic Health Record Incentives*. See Appendix B.

⁸ Alternative incentives may include incentives of equivalent value such as: specific services; gain-sharing arrangements; rewards for quality and efficiency; in-kind payments; and other items or services to which a specific monetary value can be assigned.

⁹ Md. Code Ann., Health-Gen. § 19-143. See Appendix C.

Commission (HSCRC) to designate a statewide HIE to develop the technical infrastructure that provides organizational and technical capabilities to enable the electronic exchange of clinical information in a private and secure manner between hospitals, physicians, other health care providers, and organizations. In the summer of 2009, the MHCC and HSCRC designated the Chesapeake Regional Information System for Our Patients (CRISP) as the statewide HIE. Over the last two years, CRISP has connected all 46 acute care hospitals in Maryland to the HIE and currently offers a number of HIE services to providers.¹⁰

In addition, the statute directs the MHCC, by October 1, 2012, to designate management service organizations (MSOs) that offer hosted EHRs and other services to provide services throughout the State and meet specific privacy, security and technical standards set forth in regulation. MSOs, which provide an alternative to traditional client-server EHR systems, allow the software to be accessed via the Internet, host information offsite in secure network operating centers, and offer onsite practice consulting. The MHCC launched the MSO State designation program in May 2010, and currently has designated about 15 MSOs that are now supporting more than 1,750 physicians statewide.¹¹

Federal EHR Adoption Incentive Program

Medicare and Medicaid

The *American Recovery and Reinvestment Act of 2009* (ARRA) provides for incentive payments from Medicare and Medicaid for eligible professionals (EPs) who are meaningful users of certified EHRs.^{12, 13, 14} To demonstrate meaningful use, EPs must meet certain thresholds for a number of objectives in their use of the EHR system, as identified in the Centers for Medicare and Medicaid Services meaningful use criteria Final Rule.¹⁵ Hospital-based EPs are not eligible to participate in the EHR incentive program.¹⁶ EPs can earn up to \$44,000 through the Medicare incentive program over five years, or as much as \$63,750 over the six years they choose to participate in the Medicaid incentive program.¹⁷ Nationally, roughly 303,072 EPs were registered for the EHR incentive program as of September 30, 2012, and about 142,744 EPs received incentive payments.^{18, 19} As of

¹⁰ See Appendix D for the status of acute care hospital data submission to the statewide HIE.

¹¹ See Appendix E for a list of MSOs.

¹² Public Law 111-5.

¹³ EPs for the Medicare program include: doctors of medicine, osteopathy, dental surgery, dental medicine, podiatry, optometry, or chiropractors. EPs for the Medicaid program must meet the minimum 30 percent Medicaid patient volume threshold or 20 percent for pediatricians; they must also be one of the following: physicians (Doctor of Medicine or Doctor of Osteopathic Medicine), dentists, nurse practitioners, certified nurse-midwives, or physician assistants (working for a federally qualified health center only).

¹⁴ CMS was authorized to create the Medicare and Medicaid EHR Incentive Program under the *Health Information Technology for Economic and Clinical Health Act*. More information about the program is available at: <https://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/index.html?redirect=/EHRIncentivePrograms/>.

¹⁵ 42 C.F.R. § 142, 143, 422, et. al. (2010).

¹⁶ For purposes of the program, a health care professional is considered to be hospital-based if the professional furnishes 90 percent of his or her services in a hospital inpatient or emergency room setting.

¹⁷ EPs can participate in either the Medicare EHR incentive program or the Medicaid EHR incentive program and are allowed to switch participation from one program to the other one time.

¹⁸ The Centers for Medicare and Medicaid Services, *EHR Incentive Program Report*, September 2012. Available at: http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Downloads/September_RegistrationsbyIndividual_States.pdf.

September 2012, about 1,630 EPs in Maryland have received over \$29 million in Medicare and Medicaid incentive payments.^{20, 21}

The Medicare and Medicaid federal incentive program requirements change over the program period. Under the Medicare incentive program, EPs must adopt an EHR system and demonstrate meaningful use in 2012 to receive the full incentive, and the last payment year is 2016.²² Medicare EPs that have not adopted an EHR and demonstrated meaningful use by 2015 and each year after are subject to a decrease in their Medicare reimbursements.²³ The Medicaid incentive program allows EPs that adopt, implement or upgrade to a certified EHR to receive up to \$21,250 in the first payment year, and up to \$8,500 over the remaining five years that they choose to participate in the program and demonstrate meaningful use. The last payment year for the Medicaid incentive program is 2021. EPs that participate in the Medicare and Medicaid EHR incentive program may also be eligible to participate in the State program.

State-Regulated Payer EHR Adoption Incentive Program

According to the Office of the National Coordinator for Health Information Technology (ONC), the cost of adopting an EHR system ranges from about \$15,000 to \$70,000.²⁴ The cost of the technology varies by practice size, depends on the features a practice selects including data exchange services, and whether the EHR is hosted by the practice or is web-based. Anecdotal data from practices that have adopted an EHR suggests adoption can initially impact a practice's ability to maintain existing patient volumes during implementation. The financial impact of lost revenue during the initial implementation period has been reported to be up to \$100,000.

Maryland is the first state to promote EHR adoption by requiring payers to offer incentives to providers. In 2009, the MHCC worked with Aetna, Inc.; CareFirst BlueCross BlueShield; Cigna HealthCare Mid-Atlantic; Coventry Health Care; Kaiser Permanente; and UnitedHealthcare, Mid-Atlantic Region to develop the program. These six payers account for over 92 percent of the health care premium volume in Maryland.²⁵ Subsequently, in 2010, the MHCC established an EHR Adoption Incentive Workgroup (workgroup) to recommend program participation guidelines and the incentive amounts, and in October 2011, the MHCC adopted the supporting regulation.²⁶ In recent months, the MHCC collaborated with stakeholders to identify options for modifying the regulation.²⁷

¹⁹ See Appendix F for the number of EPs receiving Medicare meaningful use payments in each State.

²⁰ CMS Medicare and Medicaid EHR Incentive Program, *Combined Medicare and Medicaid Payments by States*, January 2011 to September 2012. Available at: http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Downloads/September_PaymentsbyStatesbyProgrambyProvider.pdf.

²¹ See Appendix G for the number of Maryland EPs and hospitals registered for the Medicare and Medicaid Incentive Programs, including payments made, compared to the national average.

²² More information about the requirements of the Medicare and Medicaid EHR incentive program is available online at: <https://ehrincentives.cms.gov/>.

²³ Medicare reimbursements decrease one percent in the first year and up to five percent in subsequent years. 42 C.F.R. § 142, 143, 422, et. al. (2010).

²⁴ Office of the National Coordinator, *Frequently Asked Questions*, 2012. Available at: <http://www.healthit.gov/providers-professionals/faqs/how-much-going-cost-me>.

²⁵ Information obtained from the Maryland Insurance Administration.

²⁶ COMAR 10.25.16, *Electronic Health Record Incentives*. See Appendix B.

²⁷ Options for consideration of program changes begin on page 11.

Program Participation Requirements

Incentives are available to family, general, geriatric, internal medicine, pediatric, and gynecology primary care practice specialties (practices) in Maryland; to qualify for the program, practices must use a nationally certified EHR system.^{28, 29} Eligible practices can receive either a one-time cash incentive from payers, or an incentive of equivalent value agreed upon by the practice and payer. Incentives of equivalent value may include: specific services; gain-sharing arrangements; rewards for quality and efficiency; in-kind payments; or other items or services that can be assigned a specific monetary value. A practice is eligible to receive a base incentive up to \$7,500³⁰ and an additional incentive up to \$7,500 for meeting one of the following three criteria: 1) contracts with a MSO for EHR adoption or implementation services; 2) demonstrates advance use of EHRs; or 3) participates in the payer's quality improvement outcomes initiative and achieves the performance goals as established by the payer. The maximum incentive available to an eligible practice is \$15,000 from each payer.

Program Financial Impact on State-Regulated Payers

Annually, payers must submit a report to the MHCC that includes: the number of incentive applications and payment requests received and processed; the total value of distributed base incentives; and the total value of the additional incentives for the calendar year. The MHCC also asked payers to voluntarily report on the progress of the program in July 2012. Data reported by payers represents about nine months of information since the program inception and indicates that the volume of applications is fairly consistent across payers; Kaiser Permanente's unique closed-system model is the primary reason for their low volume of applications. At this time, payers did not report on payments as the program includes a six month waiting period from the time a payer receives an application until a payment is made. The following table details the program's progress by payer through July 2012.

²⁸ The Office of the National Coordinator authorizes testing and certification bodies to certify EHR products. A list of nationally certified health IT products is available at: <http://onccchpl.force.com/ehrcert?q=CHPL>.

²⁹ To achieve national certification, the EHR system must have the capability to: provide clinical decision support; support physician order entry; capture and query information relevant to health care quality; and exchange and integrate electronic health information.

³⁰ The base incentive is calculated at \$8 per the number of payer's member patients treated by the practice.

Program Progress - July 2012				
Payer	Applications Received	Acknowledgment Letters Sent	Payment Requests	Payments Made
Aetna, Inc.	173	173	10	0
CareFirst BlueCross BlueShield	151	151	11	0
CIGNA Health Care Mid-Atlantic Region	161	128	8	0
Coventry Health Care	123	113	7	0
Kaiser Permanente	43	43	1	0
United Healthcare, MidAtlantic Region	147	112	7	0
Total	798	720	44	0

Approximately 2,122 primary care practices are eligible to participate in the program.³¹ The maximum estimated amount of incentive payments from the program is about \$31.8M and assumes all eligible practices will apply for and receive the entire incentive amount of \$15,000 from one payer.³² The following table provides benchmarking estimates at various practice participation levels in the program.

Program Cost - Primary Care Practices <i>(Assumes Full Incentive Payment)</i>		
Practice Participation Level (%)	Participating Primary Care Practices (#)	Total EHR Incentive Payments* (\$M)
25	531	8.0
50	1,061	15.9
75	1,592	23.9
100	2,122	31.8

³¹ 2010 Maryland Board of Physicians Licensure File. A database of physician responses to the bi-annual licensure survey.

³² Estimated costs include only the incentive payments made to practices and do not take into account any administrative costs.

As stated previously, practices that adopt the technology can receive a base incentive up to \$7,500 and, under certain circumstances, can receive an additional incentive up to \$7,500. The potential base program costs are around \$15.9M.³³ Under the existing incentive structure, expanding the program to include non-hospital specialty care practices could potentially increase the overall base incentive program amount by nearly \$19.1M.³⁴ A maximum payout of the additional incentive in the same amount is possible to the practices that meet the existing program participation requirements. The following table illustrates the potential financial impact of expanding the eligibility to include additional specialty care practices in the program.

Potential Financial Impact Distributed Across Payers (Assumes Full Incentive Payment)						
Practice Setting	Primary Care		Specialty Care		Combined	
	Practices (#)	Impact (\$M)	Practices (#)	Impact (\$M)	Practices (#)	Impact (\$M)
Hospital	126	1.9	349	5.2	475	7.1
Non-Hospital	1,996	29.9	2,551	38.3	4,547	68.2
Total	2,122	31.8	2,900	43.5	5,022	75.3

Leading State EHR Adoption Initiatives

Management Service Organizations

MSOs have emerged as a way to address the challenges associated with physician adoption of EHRs. These challenges include the cost and maintenance of the technology, and the privacy and security of data stored electronically. Unlike the traditional EHR client-server model where the data and technology are hosted locally at the physician site, MSOs offer EHRs that are hosted in a centralized, secure data center. MSOs enable physicians to access a patient's record wherever access to the Internet exists. Remotely hosted EHRs generally relieve physicians from dedicating staff to support the application. In addition, MSOs offer services that assist physicians in areas of EHR planning, implementation, staff training, technical support, and becoming advanced EHR users. In general, MSOs are viewed by practices as a sensible choice for EHR adoption.

Health-General § 19-143, enacted in 2009, requires the MHCC to designate one or more MSOs to offer hosted EHR products. In 2010, the MHCC convened an MSO Advisory Panel that developed criteria for State designation, which includes a requirement for national accreditation. The

³³ The calculation takes into account only the full base incentive amount, \$7,500, per practice.

³⁴ Practice information obtained from the 2010 Maryland Board of Physicians Licensure File, a database of physician responses to the bi-annual licensure survey.

supporting regulations, COMAR 10.25.15 *Management Services Organizations – State Designation*, became effective in November 2010. To achieve national accreditation from the Electronic Health Network Accreditation Commission, or EHNAC, MSOs must meet more than 95 criteria that center on technical performance, privacy and security, business practices and services. MSOs have one year from the date they are granted Candidacy Status from the MHCC to achieve EHNAC accreditation and State designation. At present, about 15 out of 17 MSOs have achieved EHNAC accreditation and State designation.³⁵

Regional Extension Center

MSOs that provide assistance to practices in Maryland and are interested in receiving subsidies from the Regional Extension Center (REC) under the federal incentive program must be State Designated. In 2010, CRISP received approximately \$6.8M to establish Maryland's REC under the ONC grant, *Health Information Technology Extension Program: Regional Centers*. CRISP is responsible for all aspects of the REC program, which includes education, outreach and technical assistance to priority care providers to help them select, successfully implement and meaningfully use EHRs to improve the quality and value of health care.³⁶ As the REC, CRISP partners with MSOs to increase EHR adoption and meaningful use in Maryland. The REC uses MSOs as the framework for advancing EHR adoption. This model is built around the premise that MSOs will compete for physician business for MSO offerings such as EHR functionality and various supporting services, which include data analysis, reporting and practice workflow redesign. This model aims to ensure competition in the marketplace and sustainability of the REC. The REC has also partnered with local resources, such as colleges and universities, to promote health IT training programs.

MSOs are well suited to support CRISP as it meets its federal obligations under the grant. As the REC, CRISP is tasked with enrolling at least 1,000 priority care providers into the program, and meeting certain performance milestones around EHR adoption and meaningful use. To date, the REC has exceeded the enrollment goal by nearly 800 physicians, and in July 2012 it received an additional \$500,000 to expand the services it offers.³⁷ The REC also uses the MHCC's EHR Product Portfolio (portfolio) in helping physicians evaluate EHR technology.³⁸ The portfolio is a free online tool that provides evaluative and comparison information about EHR vendors and products. All EHR vendors included in the portfolio are nationally certified and offer their products at a discounted rate to Maryland physicians. The portfolio contains details on the system, functions, pricing, secure messaging, connectivity status to the statewide HIE, privacy and security policies, and references describing user satisfaction. Presently, the portfolio includes information on approximately 32 EHR vendors and features vendors that are connecting to the State designated HIE.

³⁵ See Appendix E for a list of MSOs.

³⁶ Priority care providers in the REC program include primary care providers in practices with fewer than 10 providers. Providers include: physicians, physician assistants or nurse practitioners who provide primary care services in public and critical access hospitals, community health centers, rural health clinics and in other settings that predominantly serve uninsured, underinsured and medically underserved populations.

³⁷ See Appendix H for the status of the REC achievement of milestones.

³⁸ The MHCC EHR Product Portfolio is available at: <http://mhcc.dhbmh.maryland.gov/hit/ehrVendors/Pages/ehrvendors.aspx>.

EHR Adoption – An Essential Component of Health Information Exchange

Statewide Health Information Exchange

Through a competitive process, the MHCC and the HSCRC designated CRISP as the organization to build the statewide HIE. CRISP is a not-for-profit organization that was founded by Johns Hopkins Medicine, MedStar Health, Erickson Retirement Communities, and the University of Maryland Medical System. CRISP also has support from more than two dozen other stakeholder groups. In 2009, the State awarded CRISP approximately \$10 million for initial HIE development costs through its distinctive all-payer rate setting system. In addition, the MHCC was awarded approximately \$10.9M by the ONC under the *State Health Information Exchange Cooperative Agreement Program* (grant program) to advance the necessary governance, policies, technical services, business operations, and financing mechanisms for HIE. The MHCC is using the funds to support the work of the State designated HIE to build on existing efforts to advance State level HIE while moving toward nationwide interoperability. The MHCC is one of nearly 55 recipients of funding under similar grants nationwide. The grant program extends over four years and ends in March 2014.

The State designated HIE supports high quality, safe, and effective health care by making certain that data is exchanged privately and securely; ensuring transparency and stakeholder inclusion; supporting connectivity regionally and nationally; achieving and maintaining financial sustainability; and serving as the foundation for transforming health care in Maryland. CRISP is developing an infrastructure that will enable critical clinical information to be shared between providers of different organizations and at different locations in real-time. Over the last two years, the State designated HIE has made considerable progress in implementing the infrastructure to support exchanging electronic health information; all acute care hospitals are now making electronic patient information available to other providers. The infrastructure includes roughly four million unique patients and, at the end of June 2012, had matched more than 55 million clinical transactions.^{39, 40}

As of October 2012, participating organizations had uploaded more than 98 million documents to be available through CRISP. The electronic health information available through the HIE includes hospital admission, discharge and transfer information; laboratory results; medication lists; and radiology reports. The State designated HIE also makes available a web-based portal for viewing clinical information. From October 2011 through October 2012, providers viewed electronic health information through the web-based portal⁴¹ nearly 25,355 times. The following table details key reporting metrics of the State designated HIE.

³⁹ See Appendix D for the status of hospital data submission to the State designated HIE.

⁴⁰ A Master Patient Index matches transactions exchanged between providers to ensure the appropriate individual's data is given to the requestor.

⁴¹ The CRISP Portal is a standalone web-based system that contains patient health information from Maryland hospitals and other providers connected to the HIE. Information available via the portal includes patient demographics, laboratory results, radiology reports, discharge summaries, operative and consult notes, and medication fill history.

State Designated HIE Key Reporting Metrics						
Metric	June 2012	July 2012	August 2012	September 2012	October 2012	Progress (Oct 2011- Oct 2012)
Documents Uploaded	10,012,845	10,761,563	6,817,628	7,268,045	7,948,257	98,207,851
<i>Hospital Encounters</i>	<i>7,344,542</i>	<i>7,807,623</i>	<i>4,915,753</i>	<i>5,333,752</i>	<i>5,900,758</i>	<i>73,450,230</i>
<i>Laboratory Results</i>	<i>2,032,580</i>	<i>2,169,878</i>	<i>1,403,772</i>	<i>1,372,216</i>	<i>1,464,860</i>	<i>18,256,690</i>
<i>Radiology Reports</i>	<i>451,478</i>	<i>567,084</i>	<i>313,321</i>	<i>340,044</i>	<i>347,246</i>	<i>4,407,715</i>
<i>Transcribed Documents</i>	<i>184,245</i>	<i>216,978</i>	<i>184,782</i>	<i>222,033</i>	<i>235,393</i>	<i>2,098,216</i>
Hospitals Exchanging Clinical Documents (cumulative)	28	35	36	38	38	38
Provider Queries	1,430	1,574	3,135	4,478	7,175	25,355
Unique Providers Querying the Exchange	144	142	178	137	211	Average 127/month

Additionally, the State designated HIE offers a number of services to improve care coordination and care delivery. The leading services include: Direct Secure Messaging, which enables electronic referrals and other care coordination information to be shared privately and securely through encrypted e-mail; the Encounter Notification System, which notifies physicians in real time about patient visits to the hospital; and the Encounter Reporting System, which identifies readmission patterns.

Health Information Technology State Plan

For nearly ten years, the MHCC's health IT initiative has concentrated on expanding EHR adoption and advancing HIE as the underpinning strategies. In 2009, as part of the ONC grant program, the MHCC was required to submit and receive ONC approval of its Health Information Technology State Plan (plan). Key sections of the plan are included in Appendix I. This comprehensive plan was required from all recipients of ONC funding under the grant program, identified broad goals, specific purposes and operational plans for advancing health IT throughout the State.⁴² In 2010, the MHCC's plan was one of the first three plans approved by the ONC. The MHCC's plan balanced the need for information sharing with the need for strong privacy and security policies. The plan also focused on maintaining a judicious approach to funding the HIE. While the MHCC entrusts the detailed implementation of the State designated HIE to the organization, the plan provided for a broad range of stakeholder input into initial implementation. The governance, policy, and technical infrastructure outlined in the plan provided the general public a strong role in the development of

⁴² The plan is available online at: <http://mhcc.dhmdh.maryland.gov/hit/Pages/publications.aspx>.

fundamental initial policies governing the State designated HIE. The plan appropriately identifies the high priority that Maryland places on advancing HIE and expanding the adoption of EHRs, while providing significant safeguards to assure that the interests of consumers and the general public were protected.

State-Regulated Payer EHR Incentive Program Options

Pursuant to the statute's requirements, the MHCC is currently studying whether the scope of the existing program eligibility criteria established in regulation should be expanded beyond primary care practices. To date, almost all payers indicated a preference to leave the scope of eligible providers under the existing program in place until more data on the impact of the program is available. Several payers also noted their preference to allow the regulation to sunset at the end of 2014 without expansion. In contrast, MedChi, The State Medical Society (MedChi), voiced its preference that the scope of the regulation be broadened to include specialty care practices as a way to help these practices offset the financial burden associated with implementing EHRs. Given that the program has been in operation for less than a year, more time is needed to collect and evaluate the data before a determination on expanding the program can be made.

In anticipation of potential changes to the program, a number of payers and MedChi have expressed a willingness to consider program changes in 2013. Over the last several months the MHCC, in collaboration with stakeholders, including the Department of Health and Mental Hygiene, payers,⁴³ MedChi and CRISP, developed several possible program options, which are summarized below. Payer data on the progress of the program will be available around the end of the first quarter in 2013. Payers and MedChi support reconvening the workgroup to explore the options after the MHCC has evaluated the data.

Option 1

Maintain the existing EHR adoption incentive program and clarify sections of the regulation

This approach would keep the current program in place without expanding the regulation, but would revise the regulation to streamline the application process,⁴⁴ clarify the requirements for additional incentives⁴⁵ and address the issue of non-participating providers in the program.⁴⁶ Some payers noted their operations around the application process are working well and they would prefer that no administrative changes occur. One alternative would be for the regulation to give payers greater flexibility in the administration of the program.

Currently, less than 12 months of program data exists, and preliminary data suggests the volume of incentive applications is slightly less than the MHCC staff originally anticipated. Payers began

⁴³ Stakeholders included: Aetna, Inc.; CareFirst BlueCross BlueShield; Cigna HealthCare Mid-Atlantic; Coventry Health Care; Kaiser Permanente; the League of Life and Health Insurers of Maryland, and UnitedHealthcare, Mid-Atlantic Region.

⁴⁴ Several payers have expressed concern regarding the complexity of the application process.

⁴⁵ There are two components to the current program incentive, a base incentive and an additional incentive. The current regulations state the additional incentive may include the use of a State designated MSO, advanced use of an EHR or participation in the payer's quality improvement program.

⁴⁶ The current regulations do not specify whether provider eligibility for an incentive is based on contracting with the State-regulated payer.

accepting applications for the program in the winter of 2012. As of July 2012, about 798 applications had been received. The reasons attributed to the current low volume of applications vary. Some primary care practices reported that they are delaying the purchase of an EHR until their preferred vendor obtains national certification, which is required for the federal EHR adoption incentives. Many of the primary care practices that have already adopted an EHR are focused at this time on meeting the requirements for incentives under the federal program. Almost all primary care practices report grappling with implementing ICD-10, the new billing requirements that must be in place by October 1, 2013; this has been somewhat of a distraction to applying for incentives related to EHR adoption.

Many payers and MedChi believe program applications will increase as stakeholder awareness and education activities related to the program continue. MedChi, Maryland Group Management Association, the Maryland Hospital Association, CRISP, and nearly all payers provide information about the program in their publications, on their website, and in meetings with primary care practices to discuss the program. Data collected by payers over the next six months is expected to provide insight to the value of the program to primary care practices. Under the current program, primary care practices are eligible to receive incentives from payers through December 2014.

Option 2

Rely on the REC to administer the incentive program

This approach would rely on CRISP, the REC, which currently administers the federal health IT extension program,⁴⁷ to administer the State-regulated program. The MHCC would develop specific details of this approach with input from the workgroup, which would include simplifying the administrative complexities of the existing program. In general, the REC would receive a fixed amount from payers to increase EHR adoption among all practice types. The REC would use the funds to encourage physician practices to adopt an EHR, achieve some of the meaningful use requirements, and participate with the State designated HIE. Annual payments to the REC would be made for a limited time period and would be based on the REC achieving certain EHR adoption benchmarks. Each payer's financial contributions are anticipated to be less than most payers' projected ceiling under the current program, and would be determined based on the payer's share of the fully insured market in Maryland and include the cost of administering the program. A reduction for incentives already paid under the existing program would be included in each payer's payment calculation.

A number of stakeholders have noted the appeal of this approach as it alleviates payers from administering the program, prevents practices from completing multiple applications, and relies on the REC to disperse the funds, the same entity that is already dispersing federal funds for EHR adoption and use. Option 2 is contingent on CRISP's willingness to continue in its current role as operator of the REC beyond the federal funding period ending in 2014. This option warrants greater consideration as the REC has been very effective in expanding EHR adoption in Maryland as described earlier in this report. Since 2009, the REC has expanded EHR adoption by approximately

⁴⁷ RECs are federally funded to offer technical assistance, guidance, and information on best practices to support and accelerate health care providers' efforts to become meaningful users of EHRs.

1,774 priority care providers. This is approximately 73 percent more than what was required by the ONC under the grant. The REC relies on State Designated MSOs to serve as technology consultants to providers. MSOs also educate providers on ways they can maximize their use of EHRs, and provide consultative services on workflow redesign to support the technology. MSOs offer alternative technology solutions that eliminate the need for practices to have technical resources on hand to assume the information technology responsibilities.

Option 3

Expand the incentive program to include select specialty care practices

This approach would broaden the program to include select non-hospital based single specialty care practices. Including these practices in the program increases the potential number of practices that could seek an incentive by about 2,551 practices. Nearly all payers voiced concern about adding specialty care practices to the existing program. Certain payers noted that expanding the program to specialty care practices could impact the incentives available to primary care practices. Their apprehension centers largely on the financial risk of expanding the program without sufficient data to evaluate its impact. As previously mentioned, payers said that until more data on the existing program becomes available, it is too soon to consider expanding the program beyond primary care practices. Conversely, MedChi has expressed an interest in including specialty care practices in the incentive program as a way to increase adoption among a wider variety of practice types.

Measurable benefits exist from the adoption of EHRs.^{48, 49} The benefits of EHRs, while widely known, have not resulted in an increased rate of adoption among physicians; some physicians have been slow to adopt the technology. In April 2012, an article in *Health Affairs* reported between 2002 and 2011, EHR adoption nationally had increased from about 18 percent to 55 percent overall.⁵⁰ During this same time period, EHR adoption among primary care providers increased at a faster rate than that of specialists. By 2011, nearly 40 percent of primary care providers had a basic EHR system, as compared to around 31 percent of specialists. Primary care providers are also more likely to be eligible for the Medicare and Medicaid EHR Incentives Program. The REC Program Director for the Western States of the ONC reported that some states are planning to implement EHR incentives for specialists.⁵¹

⁴⁸ M.B. Buntin, M.F. Burke, M.C. Hoaglin, and D. Blumenthal, *The Benefits of Health Information Technology: A Review of the Recent Shows Predominantly Positive Results*, *Health Affairs*, Millwood, 30, no. (March 2011): 464-471.

⁴⁹ L. M. Kern, Y. Barron, R. Dhopeswarkar, A. Edwards, and R. Kaushal, *Electronic Health Records and Ambulatory Quality of Care*, *Journal of General Internal Medicine*, October 3, 2012.

⁵⁰ S.L. Decker, E.W. Jamoom, and J.A. Sisk, *Physicians in Nonprimary Care and Small Practices and Those Age 55 and Older Lag in Adopting Electronic Health Record Systems*, *Health Affairs*, online April 2012, vol: 10.1377/hlthaff.2011.1121.

⁵¹ Blueshift Research, January 19, 2012. Available at:

<http://blueshiftideas.com/reports/011206IncentivesPushEHRAoptionConsolidationExpected.pdf>.

Remarks

The existing program, from a practical standpoint, helps primary care practices offset the significant investment and maintenance costs of implementing EHR systems. The benefits that a provider derives from the use of an EHR are more involved than merely adopting electronic systems for maintaining clinical information. Achieving efficiencies in clinical practice and in quality requires using EHRs effectively, which includes regularly reviewing registries, standardizing physician activities, and changing workflows. Funding EHR adoption without placing greater emphasis on the use of the technology establishes a rebate program for the purchase of an EHR. Such an approach is not consistent with incentivizing better patient outcomes, a key requirement under the Patient Protection and Affordable Care Act.⁵²

Physicians in specialty care practices continue to lag behind other categories of physicians in the adoption of EHRs.⁵³ The barriers for specialty care practices to adopt an EHR are consistent with other providers and generally pertain to costs. Physicians must pay to implement the technology, yet most of the benefits accrue to payers and purchasers.⁵⁴ A logical starting point for increasing EHR adoption is to provide primary care practices with EHR adoption incentives. The regulation would need to be modified to include specialty care practices in the program and to align the regulation with the federal incentive program where achieving meaningful use requirements results in the payment of incentives. The federal incentive program, coupled with the lessons learned from payers and providers, establishes an excellent framework for enhancing the regulation.

It took nearly two years to implement the program's regulation from the time the law was passed. Balancing the often competing interests of payers and providers in the development of the regulation proved difficult. Similarly, achieving consensus on any modifications to the regulation is also likely to be an arduous task. Expanding the regulation to include specialty care practices and to provide savings for payers is achievable. In 2013, in collaboration with the workgroup, the MHCC staff plans to further consider changes to the program so that the benefits of widespread EHR adoption can be achieved.

⁵² Public Law 111 – 148.

⁵³ S.L. Decker, E.W. Jamoom, and J.A. Sisk, *Physicians in Nonprimary Care And Small Practices And Those Age 55 And Older Lag In Adopting Electronic Health Record Systems*, Health Affairs, online April 2012, doi: 10.1377/hlthaff.2011.1121.

⁵⁴ D.W. Bates, *Physicians and Ambulatory Electronic Health Records*, Health Affairs. September 2005 vol. 24 no. 5 1180-1189. Available at: <http://content.healthaffairs.org/content/24/5/1180.full>.

CHAPTER 689

(House Bill 706)

AN ACT concerning

Electronic Health Records – Regulation and Reimbursement

FOR the purpose of requiring the Maryland Medical Assistance Program to reimburse certain health care providers in accordance with certain provisions of this Act; ~~requiring the Maryland Health Care Commission, in consultation with the Department of Health and Mental Hygiene and the Maryland Insurance Administration, to adopt certain regulations on or before a certain date requiring certain payors to include certain costs in a certain reimbursement structure; requiring the Commission to designate a certain health information exchange on or before a certain date; requiring the Commission to determine the appropriate level of additional reimbursement in a certain manner; providing that certain regulations shall apply to certain entities under certain circumstances; requiring the Commission, in consultation with the Department and the Administration, to adopt certain regulations that specify certain certification requirements on or before a certain date; requiring the Maryland Health Care Commission and the Health Services Cost Review Commission to designate a health information exchange for the State on or before a certain date; requiring the Maryland Health Care Commission, on or before a certain date, to report on progress in implementing certain provisions of this Act; requiring, on or before a certain date, the Maryland Health Care Commission, following consultation with certain stakeholders, to post on its website for a public comment and submit to the Governor and certain legislative committees, a report on certain aspects of health information technology; requiring the committees to have a certain period of time for review and comment; requiring, on or before a certain date, the Maryland Health Care Commission, in consultation with the Department of Health and Mental Hygiene and others, to adopt regulations that require certain payors to provide incentives to health care providers to promote the adoption and certain use of electronic health records; establishing certain requirements for the incentives; providing that the incentives may include certain items and services; specifying that the regulations need not require incentives for certain types of health care providers; requiring the regulations to apply to certain entities under certain circumstances; requiring the Health Services Cost Review Commission and the Department, in consultation with certain other entities, to take certain actions that relate to the American Recovery and Reinvestment Act of 2009 and certain rules and regulations; requiring the Maryland Health Care Commission, on or before a certain date, to report to the Governor and the General Assembly on certain progress achieved and recommendations for changes that may be necessary for certain adoption and use of electronic health records; requiring the~~

- 1 -

⁵⁵ The Maryland General Assembly passed House Bill 706 during the 2009 legislative session and signed into law on May 19, 2009 by Governor Martin O'Malley.

Maryland Health Care Commission to designate a certain management service organization organizations on or before a certain date; authorizing the Maryland Health Care Commission to use certain grants and loans in a certain manner; requiring certain health care providers to use certain electronic health records on or and after a certain date; prohibiting certain payors from reimbursing certain health care providers on or after a certain date under certain circumstances; providing that certain provisions of this Act shall apply to certain entities under certain circumstances; providing that certain provisions of this Act apply to health maintenance organizations; requiring certain carriers State-regulated payors to reimburse provide incentives to certain health care providers in accordance with certain provisions of this Act; requiring the Secretary of Budget and Management to ensure that the State Employee and Retiree Health and Welfare Benefits Program complies with certain provisions of this Act; defining certain terms; and generally relating to the regulation of and reimbursement for the use of electronic health records.

BY repealing and reenacting, without amendments,

Article – Health – General

Section 1–101(a) and (c), 15–101(a) and (h), and 19–101

Annotated Code of Maryland

(2005 Replacement Volume and 2008 Supplement)

BY adding to

Article – Health – General

Section 15–105.2; 19–142 ~~through 19–145~~ and 19–143 to be under the new part
“Part IV. Electronic Health Records – Regulation and Reimbursement”;
and 19–706(ttt)

Annotated Code of Maryland

(2005 Replacement Volume and 2008 Supplement)

BY adding to

Article – Insurance

Section 15–132

Annotated Code of Maryland

(2006 Replacement Volume and 2008 Supplement)

BY repealing and reenacting, without amendments,

Article – State Personnel and Pensions

Section 2–501(a) and (b)

Annotated Code of Maryland

(2004 Replacement Volume and 2008 Supplement)

BY repealing and reenacting, with amendments,

Article – State Personnel and Pensions

Section 2–503(a)

Annotated Code of Maryland

(2004 Replacement Volume and 2008 Supplement)

SECTION 1. BE IT ENACTED BY THE GENERAL ASSEMBLY OF MARYLAND, That the Laws of Maryland read as follows:

Article – Health – General

1–101.

- (a) In this article the following words have the meanings indicated.
- (c) “Department” means the Department of Health and Mental Hygiene.

15–101.

- (a) In this title the following words have the meanings indicated.
- (h) “Program” means the Maryland Medical Assistance Program.

15–105.2.

THE PROGRAM SHALL REIMBURSE HEALTH CARE PROVIDERS IN ACCORDANCE WITH THE REQUIREMENTS OF TITLE 19, SUBTITLE 1, PART IV OF THIS ARTICLE.

19–101.

In this subtitle, “Commission” means the Maryland Health Care Commission.

PART IV. ELECTRONIC HEALTH RECORDS – REGULATION AND REIMBURSEMENT.

19–142.

(A) IN THIS PART IV OF THIS SUBTITLE THE FOLLOWING WORDS HAVE THE MEANINGS INDICATED.

- (B) “CARRIER” MEANS:
 - (1) AN INSURER;
 - (2) A NONPROFIT HEALTH SERVICE PLAN;
 - (3) A HEALTH MAINTENANCE ORGANIZATION; OR

(4) ~~A DENTAL PLAN ORGANIZATION; OR~~

~~(5)~~ ANY OTHER PERSON THAT PROVIDES HEALTH BENEFIT PLANS
SUBJECT TO REGULATION BY THE STATE.

(C) "ELECTRONIC HEALTH RECORD" MEANS AN ELECTRONIC RECORD
OF HEALTH-RELATED INFORMATION ON AN INDIVIDUAL THAT:

(1) INCLUDES PATIENT DEMOGRAPHIC AND CLINICAL HEALTH
INFORMATION; AND

(2) HAS THE CAPACITY TO:

(I) PROVIDE CLINICAL DECISION SUPPORT;

(II) SUPPORT PHYSICIAN ORDER ENTRY;

(III) CAPTURE AND QUERY INFORMATION RELEVANT TO
HEALTH CARE QUALITY; AND

(IV) EXCHANGE ELECTRONIC HEALTH INFORMATION WITH
AND INTEGRATE THE INFORMATION FROM OTHER SOURCES.

(D) (1) "HEALTH BENEFIT PLAN" MEANS A HOSPITAL OR MEDICAL
POLICY, CONTRACT, OR CERTIFICATE ISSUED BY A CARRIER.

(2) "HEALTH BENEFIT PLAN" DOES NOT INCLUDE:

(I) COVERAGE FOR ACCIDENT OR DISABILITY INCOME
INSURANCE;

(II) COVERAGE ISSUED AS A SUPPLEMENT TO LIABILITY
INSURANCE;

(III) LIABILITY INSURANCE, INCLUDING GENERAL LIABILITY
INSURANCE AND AUTOMOBILE LIABILITY INSURANCE;

(IV) WORKERS' COMPENSATION OR SIMILAR INSURANCE;

(V) AUTOMOBILE OR PROPERTY MEDICAL PAYMENT
INSURANCE;

(VI) CREDIT-ONLY INSURANCE;

(VII) COVERAGE FOR ON-SITE MEDICAL CLINICS;

(VIII) DENTAL OR VISION INSURANCE;

(IX) LONG-TERM CARE INSURANCE OR BENEFITS FOR NURSING HOME CARE, HOME HEALTH CARE, COMMUNITY-BASED CARE, OR ANY COMBINATION OF THESE;

(X) COVERAGE ONLY FOR A SPECIFIED DISEASE OR ILLNESS;

(XI) HOSPITAL INDEMNITY OR OTHER FIXED INDEMNITY INSURANCE; OR

(XII) THE FOLLOWING BENEFITS IF OFFERED AS A SEPARATE INSURANCE POLICY:

1. MEDICARE SUPPLEMENTAL HEALTH INSURANCE, AS DEFINED IN § 1882(G)(1) OF THE SOCIAL SECURITY ACT;

2. COVERAGE SUPPLEMENTAL TO THE COVERAGE PROVIDED UNDER CHAPTER 55 OF TITLE 10, U.S.C.; OR

3. SIMILAR SUPPLEMENTAL COVERAGE PROVIDED TO COVERAGE UNDER AN EMPLOYER-SPONSORED PLAN.

~~(D)~~ (E) (1) "HEALTH CARE PROVIDER" MEANS:

(I) A PERSON WHO IS LICENSED, CERTIFIED, OR OTHERWISE AUTHORIZED UNDER THE HEALTH OCCUPATIONS ARTICLE TO PROVIDE HEALTH CARE IN THE ORDINARY COURSE OF BUSINESS OR PRACTICE OF A PROFESSION OR IN AN APPROVED EDUCATION OR TRAINING PROGRAM; OR

(II) A FACILITY WHERE HEALTH CARE IS PROVIDED TO PATIENTS OR RECIPIENTS, INCLUDING:

1. A FACILITY, AS DEFINED IN § 10-101(E) OF THIS ARTICLE;

2. A HOSPITAL, AS DEFINED IN § 19-301 OF THIS TITLE;

3. A RELATED INSTITUTION, AS DEFINED IN § 19-301 OF THIS TITLE;

4. AN OUTPATIENT CLINIC;
5. A FREESTANDING MEDICAL FACILITY, AS DEFINED IN § 19-3A-01 OF THIS TITLE;
6. AN AMBULATORY SURGICAL FACILITY, AS DEFINED IN § 19-3B-01 OF THIS TITLE; AND
7. A NURSING HOME, AS DEFINED IN § 19-1401 OF THIS TITLE.

(2) "HEALTH CARE PROVIDER" DOES NOT INCLUDE A HEALTH MAINTENANCE ORGANIZATION AS DEFINED IN § 19-701 OF THIS TITLE.

~~(F)~~ (F) "HEALTH INFORMATION EXCHANGE" MEANS A STATEWIDE INFRASTRUCTURE THAT PROVIDES ORGANIZATIONAL AND TECHNICAL CAPABILITIES TO ENABLE THE ELECTRONIC EXCHANGE OF HEALTH INFORMATION BETWEEN HEALTH CARE PROVIDERS AND OTHER HEALTH SERVICES ORGANIZATIONS AUTHORIZED BY THE COMMISSION.

~~(G)~~ (G) "MANAGEMENT SERVICE ORGANIZATION" MEANS AN ORGANIZATION THAT OFFERS ~~MULTIPLE~~ ONE OR MORE HOSTED ELECTRONIC HEALTH RECORD SOLUTIONS AND OTHER MANAGEMENT SERVICES TO MULTIPLE HEALTH CARE PROVIDERS.

~~(G) "MEDICARE" MEANS THE HEALTH INSURANCE FOR THE AGED ACT, TITLE XVIII OF THE SOCIAL SECURITY AMENDMENTS OF 1965, AS AMENDED.~~

(H) (1) "STATE-REGULATED PAYOR" MEANS:

~~(1) THE MARYLAND MEDICAL ASSISTANCE PROGRAM;~~

~~(2)~~ (I) THE STATE EMPLOYEE AND RETIREE HEALTH AND WELFARE BENEFITS PROGRAM; AND

~~(3)~~ (II) A CARRIER ISSUING OR DELIVERING HEALTH BENEFIT PLANS IN THE STATE.

(2) "STATE-REGULATED PAYOR" DOES NOT INCLUDE A MANAGED CARE ORGANIZATION AS DEFINED IN TITLE 15, SUBTITLE 1 OF THIS ARTICLE.

19-143.

~~(A) ON OR BEFORE OCTOBER 1, 2010, THE COMMISSION, IN CONSULTATION WITH THE DEPARTMENT AND THE MARYLAND INSURANCE ADMINISTRATION, SHALL:~~

~~(1) ADOPT REGULATIONS THAT REQUIRE STATE REGULATED PAYORS TO INCLUDE IN THEIR REIMBURSEMENT STRUCTURE FOR HEALTH CARE PROVIDERS THE COST OF THE ADOPTION OF ELECTRONIC HEALTH RECORDS BY HEALTH CARE PROVIDERS; AND~~

~~(2) DESIGNATE A HEALTH INFORMATION EXCHANGE FOR THE STATE THAT:~~

~~(i) INCORPORATES PRIVACY RULES THAT ARE CONSISTENT WITH EXISTING FEDERAL AND STATE LAWS AND REGULATIONS; AND~~

~~(ii) MAKES ITS SERVICES AVAILABLE TO HEALTH CARE PROVIDERS, STATE REGULATED PAYORS AND OTHER HEALTH CARE SERVICES ORGANIZATIONS AS AUTHORIZED BY THE COMMISSION.~~

~~(B) (1) THE COMMISSION SHALL DETERMINE THE APPROPRIATE LEVEL OF ADDITIONAL REIMBURSEMENT TO BE REQUIRED UNDER THIS SECTION, TAKING INTO ACCOUNT ANY GRANTS OR LOANS THAT ARE AVAILABLE TO HEALTH CARE PROVIDERS FROM THE FEDERAL GOVERNMENT.~~

~~(2) THE COMMISSION MAY NOT REQUIRE ADDITIONAL REIMBURSEMENT UNDER THIS SECTION FOR A HOSPITAL THAT IS REGULATED BY THE HEALTH SERVICES COST REVIEW COMMISSION.~~

~~(C) IF FEDERAL LAW IS AMENDED TO ALLOW THE STATE TO REGULATE SELF-INSURED ENTITIES AND MEDICARE, REGULATIONS ADOPTED UNDER THIS SECTION SHALL APPLY TO REIMBURSEMENT BY SELF-INSURED ENTITIES AND MEDICARE.~~

~~19-144.~~

~~(A) (1) ON OR BEFORE OCTOBER 1, 2012, THE COMMISSION, IN CONSULTATION WITH THE DEPARTMENT AND THE MARYLAND INSURANCE ADMINISTRATION, SHALL ADOPT REGULATIONS THAT SPECIFY CERTIFICATION REQUIREMENTS FOR ELECTRONIC HEALTH RECORDS.~~

~~(2) THE COMMISSION SHALL INCLUDE IN REGULATIONS ADOPTED UNDER THIS SUBSECTION A REQUIREMENT THAT ELECTRONIC HEALTH RECORDS MUST MEET ANY STANDARDS FOR ELECTRONIC HEALTH RECORDS THAT ARE PROVIDED FOR IN FEDERAL LAW.~~

~~(B) (1) ON OR BEFORE OCTOBER 1, 2012, THE COMMISSION SHALL DESIGNATE A MANAGEMENT SERVICE ORGANIZATION TO OFFER HOSTED ELECTRONIC HEALTH RECORDS AND OTHER MANAGEMENT SERVICES THROUGHOUT THE STATE.~~

~~(2) THE COMMISSION MAY USE AVAILABLE GRANTS AND LOANS FROM THE FEDERAL GOVERNMENT TO HELP SUBSIDIZE THE USE OF THE MANAGEMENT SERVICE ORGANIZATION BY HEALTH CARE PROVIDERS.~~

~~19-145.~~

~~(A) ON OR AFTER OCTOBER 1, 2014, EVERY HEALTH CARE PROVIDER IN THE STATE SHALL USE ELECTRONIC HEALTH RECORDS THAT ARE:~~

~~(1) CERTIFIED IN ACCORDANCE WITH STANDARDS ADOPTED BY THE COMMISSION; AND~~

~~(2) HAVE INTEROPERABILITY WITH, ARE CONNECTED TO, AND EXCHANGING DATA WITH THE HEALTH INFORMATION EXCHANGE DESIGNATED BY THE COMMISSION UNDER § 19-143 OF THIS SUBTITLE.~~

~~(B) (1) ON OR AFTER OCTOBER 1, 2014, A STATE-REGULATED PAYOR MAY NOT REIMBURSE A HEALTH CARE PROVIDER THAT DOES NOT MEET THE REQUIREMENTS OF SUBSECTION (A) OF THIS SECTION FOR HEALTH CARE SERVICES.~~

~~(2) IF FEDERAL LAW IS AMENDED TO ALLOW THE STATE TO REGULATE SELF-INSURED ENTITIES AND MEDICARE, THIS SUBSECTION SHALL APPLY TO REIMBURSEMENT BY SELF-INSURED ENTITIES AND MEDICARE.~~

~~(C) ON OR AFTER OCTOBER 1, 2014, A HOSPITAL THAT IS REGULATED BY THE HEALTH SERVICES COST REVIEW COMMISSION THAT DOES NOT MEET THE REQUIREMENTS OF SUBSECTION (A) OF THIS SECTION MAY NOT BE REIMBURSED BY ANY PAYOR FOR HEALTH CARE SERVICES.~~

(A) ON OR BEFORE OCTOBER 1, 2009, THE COMMISSION AND THE HEALTH SERVICES COST REVIEW COMMISSION SHALL DESIGNATE A HEALTH INFORMATION EXCHANGE FOR THE STATE.

(B) ON OR BEFORE JANUARY 1, 2010, THE COMMISSION SHALL:

(1) REPORT, IN ACCORDANCE WITH § 2-1246 OF THE STATE GOVERNMENT ARTICLE, TO THE SENATE FINANCE COMMITTEE AND THE HOUSE HEALTH AND GOVERNMENT OPERATIONS COMMITTEE ON PROGRESS IN IMPLEMENTING THE REQUIREMENTS OF SUBSECTIONS (A) AND (D) OF THIS SECTION; AND

(2) INCLUDE IN THE REPORT RECOMMENDATIONS FOR LEGISLATION SPECIFYING HOW INCENTIVES REQUIRED FOR STATE-REGULATED PAYORS THAT ARE NATIONAL CARRIERS SHALL TAKE INTO ACCOUNT EXISTING CARRIER ACTIVITIES THAT PROMOTE THE ADOPTION AND MEANINGFUL USE OF ELECTRONIC HEALTH RECORDS.

(C) (1) ON OR BEFORE JANUARY 1, 2011, FOLLOWING CONSULTATIONS WITH APPROPRIATE STAKEHOLDERS, THE COMMISSION SHALL POST ON ITS WEBSITE FOR PUBLIC COMMENT AND SUBMIT TO THE GOVERNOR AND, IN ACCORDANCE WITH § 2-1246 OF THE STATE GOVERNMENT ARTICLE, THE SENATE FINANCE COMMITTEE AND THE HOUSE HEALTH AND GOVERNMENT OPERATIONS COMMITTEE A REPORT ON:

(I) THE DEVELOPMENT OF A COORDINATED PUBLIC-PRIVATE APPROACH TO IMPROVE THE STATE'S HEALTH INFORMATION INFRASTRUCTURE;

(II) ANY CHANGES IN STATE LAWS THAT ARE NECESSARY TO PROTECT THE PRIVACY AND SECURITY OF HEALTH INFORMATION STORED IN ELECTRONIC HEALTH RECORDS OR EXCHANGED THROUGH A HEALTH INFORMATION EXCHANGE IN THE STATE;

(III) ANY CHANGES IN STATE LAWS THAT ARE NECESSARY TO PROVIDE FOR THE EFFECTIVE OPERATION OF A HEALTH INFORMATION EXCHANGE;

(IV) ANY ACTIONS THAT ARE NECESSARY TO ALIGN FUNDING OPPORTUNITIES UNDER THE FEDERAL AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009 WITH OTHER STATE AND PRIVATE SECTOR INITIATIVES RELATED TO HEALTH INFORMATION TECHNOLOGY, INCLUDING:

1. THE PATIENT-CENTERED MEDICAL HOME;

2. THE ELECTRONIC HEALTH RECORD DEMONSTRATION PROJECT SUPPORTED BY THE FEDERAL CENTERS FOR MEDICARE AND MEDICAID SERVICES;

3. THE HEALTH INFORMATION EXCHANGE; AND

4. THE MEDICAID INFORMATION TECHNOLOGY ARCHITECTURE INITIATIVE; AND

(V) RECOMMENDED LANGUAGE FOR THE REGULATIONS REQUIRED UNDER SUBSECTION (D) OF THIS SECTION.

(2) THE SENATE FINANCE COMMITTEE AND THE HOUSE HEALTH AND GOVERNMENT OPERATIONS COMMITTEE SHALL HAVE 60 DAYS FROM RECEIPT OF THE REPORT FOR REVIEW AND COMMENT.

(D) (1) ON OR BEFORE SEPTEMBER 1, 2011, THE COMMISSION, IN CONSULTATION WITH THE DEPARTMENT, PAYORS, AND HEALTH CARE PROVIDERS, SHALL ADOPT REGULATIONS THAT REQUIRE STATE-REGULATED PAYORS TO PROVIDE INCENTIVES TO HEALTH CARE PROVIDERS TO PROMOTE THE ADOPTION AND MEANINGFUL USE OF ELECTRONIC HEALTH RECORDS.

(2) INCENTIVES REQUIRED UNDER THE REGULATIONS:

(I) SHALL HAVE MONETARY VALUE;

(II) SHALL FACILITATE THE USE OF ELECTRONIC HEALTH RECORDS BY HEALTH CARE PROVIDERS IN THE STATE;

(III) TO THE EXTENT FEASIBLE, SHALL RECOGNIZE AND BE CONSISTENT WITH EXISTING PAYOR INCENTIVES THAT PROMOTE THE ADOPTION AND MEANINGFUL USE OF ELECTRONIC HEALTH RECORDS;

(IV) SHALL TAKE INTO ACCOUNT:

1. INCENTIVES PROVIDED TO HEALTH CARE PROVIDERS UNDER MEDICARE AND MEDICAID; AND

2. ANY GRANTS OR LOANS THAT ARE AVAILABLE TO HEALTH CARE PROVIDERS FROM THE FEDERAL GOVERNMENT; AND

(V) MAY INCLUDE:

1. INCREASED REIMBURSEMENT FOR SPECIFIC SERVICES;

2. LUMP SUM PAYMENTS;

3. GAIN-SHARING ARRANGEMENTS;

4. REWARDS FOR QUALITY AND EFFICIENCY;

5. IN-KIND PAYMENTS; AND

6. OTHER ITEMS OR SERVICES TO WHICH A SPECIFIC
MONETARY VALUE CAN BE ASSIGNED.

(3) THE REGULATIONS NEED NOT REQUIRE INCENTIVES FOR THE
ADOPTION AND MEANINGFUL USE OF ELECTRONIC HEALTH RECORDS, FOR
EACH TYPE OF HEALTH CARE PROVIDER LISTED IN § 19-142(E) OF THIS
SUBTITLE.

(4) IF FEDERAL LAW IS AMENDED TO ALLOW THE STATE TO
REGULATE PAYMENTS MADE BY ENTITIES THAT SELF-INSURE THEIR HEALTH
BENEFIT PLANS, REGULATIONS ADOPTED UNDER THIS SECTION SHALL APPLY
TO THOSE ENTITIES TO THE SAME EXTENT TO WHICH THEY APPLY TO
STATE-REGULATED PAYORS.

(E) THE HEALTH SERVICES COST REVIEW COMMISSION, IN
CONSULTATION WITH HOSPITALS, PAYORS, AND THE FEDERAL CENTERS FOR
MEDICARE AND MEDICAID SERVICES, SHALL TAKE THE ACTIONS NECESSARY
TO:

(1) ASSURE THAT HOSPITALS IN THE STATE RECEIVE THE
PAYMENTS PROVIDED UNDER § 4102 OF THE FEDERAL AMERICAN RECOVERY
AND REINVESTMENT ACT OF 2009 AND ANY SUBSEQUENT FEDERAL RULES AND
REGULATIONS; AND

(2) IMPLEMENT ANY CHANGES IN HOSPITAL RATES REQUIRED BY
THE FEDERAL CENTERS FOR MEDICARE AND MEDICAID SERVICES TO ENSURE
COMPLIANCE WITH § 4102 OF THE FEDERAL AMERICAN RECOVERY AND
REINVESTMENT ACT OF 2009 AND ANY SUBSEQUENT FEDERAL RULES AND
REGULATIONS.

(F) THE DEPARTMENT, IN CONSULTATION WITH THE COMMISSION,
SHALL DEVELOP A MECHANISM TO ASSURE THAT HEALTH CARE PROVIDERS
THAT PARTICIPATE IN THE MARYLAND MEDICAL ASSISTANCE PROGRAM
RECEIVE THE PAYMENTS PROVIDED FOR ADOPTION AND USE OF ELECTRONIC
HEALTH RECORDS TECHNOLOGY UNDER § 4201 OF THE FEDERAL AMERICAN
RECOVERY AND REINVESTMENT ACT OF 2009 AND ANY SUBSEQUENT FEDERAL
RULES AND REGULATIONS.

(G) ON OR BEFORE OCTOBER 1, 2012, THE COMMISSION SHALL REPORT TO THE GOVERNOR AND, IN ACCORDANCE WITH § 2-1246 OF THE STATE GOVERNMENT ARTICLE, THE GENERAL ASSEMBLY ON PROGRESS ACHIEVED TOWARD ADOPTION AND MEANINGFUL USE OF ELECTRONIC HEALTH RECORDS BY HEALTH CARE PROVIDERS IN THE STATE AND RECOMMENDATIONS FOR ANY CHANGES IN STATE LAWS THAT MAY BE NECESSARY TO ACHIEVE OPTIMAL ADOPTION AND USE.

(H) (1) ON OR BEFORE OCTOBER 1, 2012, THE COMMISSION SHALL DESIGNATE ONE OR MORE MANAGEMENT SERVICE ORGANIZATIONS TO OFFER SERVICES THROUGHOUT THE STATE.

(2) THE COMMISSION MAY USE FEDERAL GRANTS AND LOANS TO HELP SUBSIDIZE THE USE OF THE DESIGNATED MANAGEMENT SERVICE ORGANIZATIONS BY HEALTH CARE PROVIDERS.

(I) ON AND AFTER THE LATER OF JANUARY 1, 2015, OR THE DATE ESTABLISHED FOR THE IMPOSITION OF PENALTIES UNDER § 4102 OF THE FEDERAL AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009:

(1) EACH HEALTH CARE PROVIDER USING AN ELECTRONIC HEALTH RECORD THAT SEEKS PAYMENT FROM A ~~STATE-DESIGNATED~~ STATE-REGULATED PAYOR SHALL USE ELECTRONIC HEALTH RECORDS THAT ARE:

(I) CERTIFIED BY A NATIONAL CERTIFICATION ORGANIZATION DESIGNATED BY THE COMMISSION; AND

(II) CAPABLE OF CONNECTING TO AND EXCHANGING DATA WITH THE HEALTH INFORMATION EXCHANGE DESIGNATED BY THE COMMISSION UNDER SUBSECTION (A) OF THIS SECTION; AND

(2) THE INCENTIVES REQUIRED UNDER SUBSECTION ~~(c)~~ (D) OF THIS SECTION MAY INCLUDE REDUCTIONS IN PAYMENTS TO A HEALTH CARE PROVIDER THAT DOES NOT USE ELECTRONIC HEALTH RECORDS THAT MEET THE REQUIREMENTS OF PARAGRAPH (1) OF THIS SUBSECTION.

19-706.

(TTT) THE PROVISIONS OF § 15-132 OF THE INSURANCE ARTICLE APPLY TO HEALTH MAINTENANCE ORGANIZATIONS.

Article – Insurance

15-132.

~~(A) IN THIS SECTION, "CARRIER" MEANS:~~

~~(1) AN INSURER;~~

~~(2) A NONPROFIT HEALTH SERVICE PLAN;~~

~~(3) A HEALTH MAINTENANCE ORGANIZATION;~~

~~(4) A DENTAL PLAN ORGANIZATION; OR~~

~~(5) ANY OTHER PERSON THAT PROVIDES HEALTH BENEFIT PLANS
SUBJECT TO REGULATION BY THE STATE.~~

~~(B) A CARRIER SHALL REIMBURSE HEALTH CARE PROVIDERS IN
ACCORDANCE WITH THE REQUIREMENTS OF TITLE 19, SUBTITLE 1, PART IV OF
THE HEALTH - GENERAL ARTICLE.~~

(A) IN THIS SECTION, "CARRIER" HAS THE MEANING STATED IN §
19-142 OF THE HEALTH - GENERAL ARTICLE.

(B) A CARRIER SHALL PROVIDE INCENTIVES TO HEALTH CARE
PROVIDERS IN ACCORDANCE WITH THE REQUIREMENTS OF TITLE 19, SUBTITLE
1, PART IV OF THE HEALTH - GENERAL ARTICLE.

Article - State Personnel and Pensions

2-501.

(a) In this subtitle the following terms have the meanings indicated.

(b) "Program" means the State Employee and Retiree Health and Welfare Benefits Program.

2-503.

(a) The Secretary shall:

(1) adopt regulations for the administration of the Program;

(2) ensure that the Program complies with all federal and State laws governing employee benefit plans; [and]

(3) each year, recommend to the Governor the State share of the costs of the Program; AND

(4) ENSURE THAT THE PROGRAM COMPLIES WITH TITLE 19, SUBTITLE 1, PART IV OF THE HEALTH – GENERAL ARTICLE.

SECTION 2. AND BE IT FURTHER ENACTED, That this Act shall take effect ~~October~~ July 1, 2009.

Approved by the Governor, May 19, 2009.

Appendix B: COMAR 10.25.16, Electronic Health Record Incentives

Title 10

DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Subtitle 25 MARYLAND HEALTH CARE COMMISSION

Chapter 16 Electronic Health Record Incentives

Authority: Health-General Article, §§19-103(c)(2)(i) and (ii), 19-109(a)(1), and

19-143(d)(1), (2), (3), and (4) and (i), Annotated Code of Maryland

10.25.16.01

.01 Scope.

A. This chapter applies to each payor that is required to provide incentive payments to each primary care practice that adopts and uses electronic health records, including those owned by a hospital.

B. Only a primary care practice that meets the requirements established in this chapter may receive an adoption incentive for electronic health record adoption under this program.

10.25.16.02

.02 Definitions.

A. In this chapter, the following terms have the meanings indicated.

B. Terms Defined.

(1) “Additional incentive” means an adoption incentive not to exceed \$7,500 or an incentive of equivalent value above the base incentive awarded on a one-time basis to a primary care practice that meets additional criteria in the use and adoption of electronic health records including:

(a) Contracts with a management service organization for electronic health record adoption or implementation services;

(b) Demonstrates advanced use of electronic health records; or

(c) Participates in the payor’s quality improvement outcomes initiative, and achieves the performance goals established by the payor.

(2) “Base incentive” means an adoption incentive not to exceed \$7,500 or an incentive of equivalent value awarded on a one-time basis to a primary care practice that is based on a per patient amount applied to the total number of the payor’s member patients who are treated by the primary care practice.

(3) “Electronic health record (EHR)” means an electronic record system that is certified by an Authorized Testing and Certification Body designated by the Office of the National Coordinator for Health Information Technology and contains health-related information on an individual that:

- (a) Includes patient demographic and clinical health information; and
- (b) Has the capacity to:
 - (i) Provide clinical decision support;
 - (ii) Support physician order entry;
 - (iii) Capture and query information relevant to health care quality; and
 - (iv) Exchange electronic health information with and integrate the information from other sources.

(4) “EHR adoption incentive” means a cash payment or a payment incentive of equivalent value agreed upon by the primary care practice and payor that an eligible primary care practice can receive from a payor to assist the primary care practice in adopting and implementing an electronic health record.

(5) “EHR incentive application acknowledgement letter” means a letter sent by the payor to the primary care practice accepting the primary care practice’s EHR adoption incentive application.

(6) Health Care Provider.

(a) “Health care provider” means a person who is licensed, certified, or otherwise authorized under Health Occupations Article, Annotated Code of Maryland, to provide health care services in the ordinary course of business or practice of a profession or in an approved education or training program.

(b) “Health care provider” includes a facility where health care is provided to patients or recipients, including:

- (i) A facility, as defined in Health-General Article, §10-101(e), Annotated Code of Maryland;
- (ii) A hospital, as defined in Health-General Article, §19-301, Annotated Code of Maryland;
- (iii) A related institution, as defined in Health-General Article, §19-301, Annotated Code of Maryland;
- (iv) An outpatient clinic;
- (v) A freestanding medical facility, as defined in Health-General Article, §19-3A-01, Annotated Code of Maryland;
- (vi) An ambulatory surgical facility, as defined in Health-General Article, §19-3B-01, Annotated Code of Maryland; and
- (vii) A nursing home, as defined in Health-General Article, §19-1401, Annotated Code of Maryland.

(c) "Health care provider" does not include a health maintenance organization as defined in Health-General Article, §19-701, Annotated Code of Maryland.

(7) "Incentive of equivalent value" means:

- (a) Specific services;
- (b) Gain-sharing arrangement;
- (c) Rewards for quality and efficiency;
- (d) In-kind payment; or
- (e) Other items or services that can be assigned a specific monetary value.

(8) "Management service organization (MSO)" means an organization that offers one or more hosted electronic health record solutions and other management services to health care providers and:

(a) Has received recognition by the Maryland Health Care Commission as a State Designated MSO; or

(b) Has applied with the Maryland Health Care Commission for recognition as a State Designated MSO and has been granted Candidacy status.

(9) "MHCC or Commission" means the Maryland Health Care Commission.

(10) Payor.

(a) "Payor" means a State-regulated carrier that issues or delivers health benefit plans in the State and includes:

- (i) Aetna, Inc;
- (ii) CareFirst BlueCross BlueShield;
- (iii) CIGNA HealthCare Mid-Atlantic;
- (iv) Coventry Health Care;
- (v) Kaiser Permanente;
- (vi) United Healthcare, Mid-Atlantic Region; and
- (vii) The state employee and retiree health and welfare benefits program.

(b) "Payor" does not include a managed care organization as defined in Health-General Article, Title 15, Subtitle 1, Annotated Code of Maryland.

(11) "Practice panel" means the patients assigned by a payor to a provider within a primary care practice or, when a payor does not assign patients to a provider within a primary care practice, the patients enrolled with that payor who have been treated by the primary care practice within the last 24 months.

(12) “Primary care practice” means a medical practice located in the State that is composed of one or more physicians who provide medical care in family, general, geriatric, internal medicine, pediatric, or gynecologic practice.

10.25.16.03

.03 Program Description.

A. An EHR adoption incentive shall be available to a primary care practice upon meeting the requirements set forth in Regulation .04 of this chapter.

B. A payor shall provide each primary care practice that applies for an EHR adoption incentive with a written description of the EHR adoption incentive to be provided by the payor and the timeframe for distribution of the EHR adoption incentive.

C. A payor may exclude from a primary care practice’s base incentive calculation those payor’s patient members who have been previously included in another primary care practice’s base incentive calculation.

D. A primary care practice that has received an incentive under a payor-specific EHR adoption program before October 1, 2011, is only eligible to receive the difference between the value of the payor’s prior incentive and the maximum value of the EHR adoption incentive under this chapter.

E. Upon written request by the primary care practice, a payor shall provide the primary care practice with documentation showing the total value of any incentive it provided under a payor-specific EHR adoption program prior to October 1, 2011.

F. A payor may:

(1) Request additional information from a primary care practice to validate the primary care practice’s EHR adoption incentive payment request; and

(2) Reduce a remaining EHR adoption incentive to a primary care practice if the payor determines that a duplicate payment or an overpayment has been made under this chapter.

G. The MHCC may conduct audits to determine compliance with this chapter as follows:

(1) A payor shall cooperate with the MHCC’s audit process;

(2) A primary care practice shall cooperate with the MHCC’s audit process; and

(3) If an audit reveals noncompliance with this chapter, the MHCC may require corrective action.

H. This chapter shall also apply to an entity that self-insures its health benefit plans, if federal law is amended to allow state regulation of such EHR payments.

10.25.16.04

.04 Participation Requirements.

A. To be eligible for an EHR adoption incentive under this chapter, a primary care practice shall complete and submit an EHR adoption incentive application to each appropriate payor.

B. An EHR adoption incentive application shall include the following:

(1) Practice specific information:

(a) Name;

(b) Address;

(c) Specialty;

(d) Organizational national provider identifier number; and

(e) Tax identification number;

(2) The estimated total number of patients on the practice panel;

(3) The name and version of the nationally certified EHR system implemented by the primary care practice;

(4) Either a description of the EHR functions that the primary care practice has implemented or the estimated date the primary care practice expects to implement the available EHR system's functionality; and

(5) An attestation of the accuracy of the information contained in the application signed by an authorized member of the primary care practice.

C. A payor shall issue an EHR adoption incentive application acknowledgement letter as soon as is reasonably possible and no later than 90 days after receipt of an EHR adoption incentive application.

D. A primary care practice shall complete and submit an EHR adoption incentive payment request to each appropriate payor to receive an EHR adoption incentive, as follows:

(1) A primary care practice shall submit an EHR adoption incentive payment request no earlier than 6 months after submitting an EHR adoption incentive application to that payor but no later than December 31, 2014; and

(2) A primary care practice may request the additional incentive either with its request for the base incentive or in a subsequent EHR adoption incentive payment request.

E. The initial EHR adoption incentive payment request shall include the following:

(1) A copy of the EHR incentive application acknowledgement letter;

(2) A report that includes information identifying each member patient on its practice panel at the time of the request;

(3) A description of how the primary care practice has achieved at least one of the additional incentive components described in Regulation .05(c) of this chapter for the past 90 days, if requesting the additional incentive; and

(4) An attestation of the accuracy of the information contained in the application signed by an authorized member of the primary care practice.

F. Any subsequent EHR adoption incentive payment request for an additional incentive shall include a description of how the primary care practice has achieved at least one of the additional

incentive components described in Regulation .05(c) of this chapter for the past 90 days, if requesting the additional incentive.

G. A payor may request additional information if necessary to validate an EHR adoption incentive payment request.

H. The calculation for a base incentive shall include the patients on the practice panel at the time the primary care practice submits the EHR adoption incentive payment request for the base incentive.

I. A payor shall process and pay in full the adoption incentive within 90 days of receiving an EHR adoption incentive payment request.

J. A payor shall notify a primary care practice in writing concerning the amount of the EHR adoption incentive requested, how the payor will distribute that EHR adoption incentive to the primary care practice, and the time period over which it will be distributed.

10.25.16.05

.05 Incentive Components.

A. A primary care practice that meets the requirements set forth in Regulation .04 of this chapter shall receive a base incentive from each payor that has member patients on the practice panel of that primary care practice.

B. A primary care practice shall receive an additional incentive if it demonstrates that it has achieved an additional incentive component during the immediate 90 days prior to submitting its EHR adoption incentive payment request.

C. An additional incentive component may include one of the following:

(1) A contract between the primary care practice and an MSO for EHR adoption or implementation services;

(2) A demonstration by the primary care practice of advanced use of an EHR system; or

(3) The participation by the primary care practice in a payor's quality improvement outcomes initiative and its achievement of the established performance goals.

D. Nothing in this chapter shall require a group model health maintenance organization to provide an incentive to a health care provider who is employed by a multispecialty group of physicians under contract with the group model health maintenance organization.

10.25.16.06

.06 Incentive Payment Calculation by Payor.

A. A primary care practice shall submit its adoption incentive application and any EHR adoption incentive payment request to each appropriate payor between October 1, 2011, and January 1, 2015.

B. An EHR adoption incentive is calculated at \$8 per member and limited to the payor's patient members who are Maryland residents.

C. The EHR adoption incentive consisting of a base incentive and any additional incentive shall have a maximum value of \$15,000 per practice per payor.

10.25.16.07

.07 Reporting.

A. A payor is required to submit an annual report to the MHCC for calendar years 2011 through 2014 no later than 90 days after the end of each calendar year.

B. The annual report shall include:

(1) The number of EHR adoption incentive applications received by the payor for that calendar year;

(2) The number of EHR adoption incentive payment requests received by the payor for that calendar year;

(3) The number of EHR adoption incentive payment requests processed by the payor for that calendar year;

(4) The total value of distributed base incentives for that calendar year; and

(5) The total value of additional incentives for that calendar year.

Administrative History

Effective date: May 16, 2011 (38:10 Md. R. 615)

Regulation .01 amended as an emergency provision effective October 21, 2011 (38:24 Md. R. 1495); amended permanently effective January 9, 2012 (38:27 Md. R. 1764)

Regulation .02B amended as an emergency provision effective October 21, 2011 (38:24 Md. R. 1495); amended permanently effective January 9, 2012 (38:27 Md. R. 1764)

Regulation .03 amended as an emergency provision effective October 21, 2011 (38:24 Md. R. 1495); amended permanently effective January 9, 2012 (38:27 Md. R. 1764)

Regulation .04 amended as an emergency provision effective October 21, 2011 (38:24 Md. R. 1495); amended permanently effective January 9, 2012 (38:27 Md. R. 1764)

Regulation .05 amended as an emergency provision effective October 21, 2011 (38:24 Md. R. 1495); amended permanently effective January 9, 2012 (38:27 Md. R. 1764)

Regulation .06 amended as an emergency provision effective October 21, 2011 (38:24 Md. R. 1495); amended permanently effective January 9, 2012 (38:27 Md. R. 1764)

Regulation .07 amended as an emergency provision effective October 21, 2011 (38:24 Md. R. 1495); amended permanently effective January 9, 2012 (38:27 Md. R. 1764)

Appendix C: Md. Code Ann., Health-Gen. § 19-143

Md. HEALTH-GENERAL Code Ann. § 19-143

Annotated Code of Maryland

*** Current through all Chapters Effective October 1, 2012, of the 2012 General Assembly Regular Session, First Special Session, and Second Special Session. ***

HEALTH - GENERAL

TITLE 19. HEALTH CARE FACILITIES

SUBTITLE 1. HEALTH CARE PLANNING AND SYSTEMS REGULATION

PART IV. ELECTRONIC HEALTH RECORDS -- REGULATION AND REIMBURSEMENT

Md. HEALTH-GENERAL Code Ann. § 19-143 (2012)

§ 19-143. Electronic health records

(a) Designation of health information exchange. -- On or before October 1, 2009, the Commission and the Health Services Cost Review Commission shall designate a health information exchange for the State.

(b) Progress report. -- On or before January 1, 2010, the Commission shall:

(1) Report, in accordance with § 2-1246 of the State Government Article, to the Senate Finance Committee and the House Health and Government Operations Committee on progress in implementing the requirements of subsections (a) and (d) of this section; and

(2) Include in the report recommendations for legislation specifying how incentives required for State-regulated payors that are national carriers shall take into account existing carrier activities that promote the adoption and meaningful use of electronic health records.

(c) Subsequent report for review and comment. –

(1) On or before January 1, 2011, following consultations with appropriate stakeholders, the Commission shall post on its website for public comment and submit to the Governor and, in accordance with § 2-1246 of the State Government Article, the Senate Finance Committee and the House Health and Government Operations Committee a report on:

(i) The development of a coordinated public-private approach to improve the State's health information infrastructure;

(ii) Any changes in State laws that are necessary to protect the privacy and security of health information stored in electronic health records or exchanged through a health information exchange in the State;

(iii) Any changes in State laws that are necessary to provide for the effective operation of a health information exchange;

(iv) Any actions that are necessary to align funding opportunities under the federal American Recovery and Reinvestment Act of 2009 with other State and private sector initiatives related to health information technology, including:

1. The patient-centered medical home;
2. The electronic health record demonstration project supported by the federal Centers for Medicare and Medicaid Services;
3. The health information exchange; and
4. The Medicaid Information Technology Architecture Initiative; and

(v) Recommended language for the regulations required under subsection (d) of this section.

(2) The Senate Finance Committee and the House Health and Government Operations Committee shall have 60 days from receipt of the report for review and comment.

(d) Regulations; legislative intent. –

(1) On or before September 1, 2011, the Commission, in consultation with the Department, payors, and health care providers, shall adopt regulations that require State-regulated payors to provide incentives to health care providers to promote the adoption and meaningful use of electronic health records.

(2) Incentives required under the regulations:

- (i) Shall have monetary value;
- (ii) Shall facilitate the use of electronic health records by health care providers in the State;
- (iii) To the extent feasible, shall recognize and be consistent with existing payor incentives that promote the adoption and meaningful use of electronic health records;

(iv) Shall take into account:

1. Incentives provided to health care providers under Medicare and Medicaid; and
2. Any grants or loans that are available to health care providers from the federal government;

(v) May include:

1. Increased reimbursement for specific services;
2. Lump sum payments;
3. Gain-sharing arrangements;
4. Rewards for quality and efficiency;
5. In-kind payments; and
6. Other items or services to which a specific monetary value can be assigned; and

(vi) Shall be paid in cash, unless the State-regulated payor and the health care provider agree on an incentive of equivalent value.

(3) The regulations need not require incentives for the adoption and meaningful use of electronic health records, for each type of health care provider listed in § 19-142(e) of this subtitle.

(4) If federal law is amended to allow the State to regulate payments made by entities that self-insure their health benefit plans, regulations adopted under this section shall apply to those entities to the same extent to which they apply to State-regulated payors.

(5) Regulations adopted under this subsection:

(i) May not require a group model health maintenance organization, as defined in § 19-713.6 of this title, to provide an incentive to a health care provider who is employed by the multispecialty group of physicians under contract with the group model health maintenance organization; and

(ii) Shall allow a State-regulated payor to:

1. Request information from a health care provider to validate the health care provider's incentive claim; and

2. If the State-regulated payor determines that a duplicate incentive payment or an overpayment has been made, reduce the incentive amount.

(6) The Commission may:

(i) Audit the State-regulated payor or the health care provider for compliance with the regulations adopted under this subsection; and

(ii) If it finds noncompliance, request corrective action.

(7) It is the intent of the General Assembly that the State Employee and Retiree Health and Welfare Benefits Program support the incentives provided under this subsection through contracts between the Program and the third party administrators arranging for the delivery of health care services to members covered under the Program.

(e) Actions to ensure compliance with federal law. -- The Health Services Cost Review Commission, in consultation with hospitals, payors, and the federal Centers for Medicare and Medicaid Services, shall take the actions necessary to:

(1) Assure that hospitals in the State receive the payments provided under § 4102 of the federal American Recovery and Reinvestment Act of 2009 and any subsequent federal rules and regulations; and

(2) Implement any changes in hospital rates required by the federal Centers for Medicare and Medicaid Services to ensure compliance with § 4102 of the federal American Recovery and Reinvestment Act of 2009 and any subsequent federal rules and regulations.

(f) Mechanism for receipt of payments for participants in State medical assistance program. -- The Department, in consultation with the Commission, shall develop a mechanism to assure that health care providers that participate in the Maryland Medical Assistance Program receive the payments provided for adoption and use of electronic health records technology under § 4201 of the federal American Recovery and Reinvestment Act of 2009 and any subsequent federal rules and regulations.

(g) Report to Governor and General Assembly. -- On or before October 1, 2012, the Commission shall report to the Governor and, in accordance with § 2-1246 of the State Government Article, the General Assembly on progress achieved toward adoption and meaningful use of electronic health records by health care providers in the State and recommendations for any changes in State laws that may be necessary to achieve optimal adoption and use.

(h) Designation of management service organization. –

(1) On or before October 1, 2012, the Commission shall designate one or more management service organizations to offer services throughout the State.

(2) The Commission may use federal grants and loans to help subsidize the use of the designated management service organizations by health care providers.

(i) Requirements of electronic health records. -- On and after the later of January 1, 2015, or the date established for the imposition of penalties under § 4102 of the federal American Recovery and Reinvestment Act of 2009:

(1) Each health care provider using an electronic health record that seeks payment from a State-regulated payor shall use electronic health records that are:

(i) Certified by a national certification organization designated by the Commission; and

(ii) Capable of connecting to and exchanging data with the health information exchange designated by the Commission under subsection (a) of this section; and

(2) The incentives required under subsection (d) of this section may include reductions in payments to a health care provider that does not use electronic health records that meet the requirements of paragraph (1) of this subsection.

HISTORY: 2009, ch. 689; 2011, chs. 380, 532, 533.

Appendix D: Hospital Data Submission to the Statewide HIE

Hospitals are at various stages in connecting to the State designated health information exchange, the Chesapeake Regional Information System for our Patients (CRISP). The following table identifies the hospitals that have an active connection to CRISP and submitting the following reports: laboratory, radiology, and transcribed documents as of October 2012.

Count	Hospital	Current Status of Submission		
		Laboratory Reports	Radiology Reports	Transcribed Documents
1	Anne Arundel Medical Center	✓	✓	
2	Atlantic General Hospital	✓	✓	✓
3	Baltimore Washington Medical Center			
4	Bon Secours Baltimore Health System			
5	Calvert Memorial Hospital			
6	Carroll Hospital Center	✓	✓	✓
7	Chester River Hospital Center			
8	Civista Medical Center			
9	Doctors Community Hospital	✓		
10	Dorchester General Hospital			
11	Frederick Memorial Hospital	✓	✓	
12	Fort Washington Hospital	✓	✓	✓
13	Garrett County Memorial Hospital	✓	✓	
14	Greater Baltimore Medical Center		✓	✓
15	Harford Memorial Hospital	✓	✓	✓
16	Holy Cross Hospital	✓	✓	✓
17	Howard County General	✓	✓	✓
18	James Lawrence Kernan Hospital			✓
19	Johns Hopkins Bayview Medical Center		✓	✓
20	Johns Hopkins Hospital		✓	✓
21	Laurel Regional Hospital			✓
22	Maryland General Hospital			
23	McCready Memorial Hospital	✓		
24	MedStar Franklin Square Hospital Center	✓	✓	
25	MedStar Good Samaritan Hospital	✓	✓	
26	MedStar Harbor Hospital	✓	✓	
27	MedStar St. Mary's Hospital	✓	✓	
28	MedStar Union Hospital Cecil County	✓	✓	
29	Memorial Hospital at Easton Maryland			
30	Mercy Medical Center			
31	Meritus	✓	✓	✓

Count	Hospital	Current Status of Submission		
		Laboratory Reports	Radiology Reports	Transcribed Documents
32	MedStar Montgomery General Hospital		✓	✓
33	Northwest Hospital Center	✓	✓	✓
34	Peninsula Regional Medical Center			
35	Prince George's Hospital			✓
36	Shady Grove Hospital	✓	✓	✓
37	Sinai Hospital	✓	✓	✓
38	Southern Maryland Hospital Center		✓	✓
39	St. Agnes Hospital	✓	✓	✓
40	St. Joseph Medical Center	✓	✓	✓
41	Suburban Hospital	✓	✓	✓
42	Union Memorial Hospital	✓	✓	✓
43	University of Maryland Medical Center			✓
44	Upper Chesapeake Medical Center	✓	✓	✓
45	Washington Adventist	✓	✓	✓
46	Western Maryland Hospital Center	✓	✓	✓
Totals		27	30	26

Appendix E: Management Service Organizations

Management service organizations (MSOs) have emerged as a way to address the challenges associated with provider adoption of electronic health records. These challenges include the cost and maintenance of the technology and ensuring the privacy and security of data stored electronically. State designated MSOs offer health information technology adoption and implementation services to providers. Below is a list of State Designated MSOs and MSOs in Candidacy Status.⁵⁶

STATE DESIGNATED MSOs						
Count	MSO	Designation Date	Address	City	State	Zip
1	Adventist HealthCare ACES Program	05/25/2012	1801 Research Blvd. Suite 400	Rockville	MD	20850
2	Anne Arundel Medical Center	06/22/2011	2001 Medical Parkway	Annapolis	MD	21401
3	Community Health Integrated Partnership	05/18/2011	802 Cromwell Park Drive Suite V	Glen Burnie	MD	21061
4	Children's IQ Network	10/31/2011	111 Michigan Avenue, NW	Washington	DC	20010
5	D'Souza & Associates	05/13/2011	530 Schoolhouse Road Suite A	Hockessin	DE	19707
6	Darnell Associates Inc.	03/26/2012	829 West Street	Annapolis	MD	21401
7	Frederick Memorial Hospital	07/13/2011	478 Prospect Boulevard	Frederick	MD	21701
8	Greater Baltimore Medical Center	07/29/2011	6701 North Charles Street	Baltimore	MD	21204
9	McFarland & Associates, Inc.	08/23/12	8601 Georgia Avenue, Suite 601	Silver Spring	MD	20910
10	MedChi Network Services, LLC	03/29/2012	1211 Cathedral Street	Baltimore	MD	21201
11	MedPlus, Inc.	01/06/2012	4690 Parkway Drive	Mason	OH	45040
12	MedTech Enginuity Corp	09/26/2012	12125 Guinevere Place	Glenn Dale	MD	20769
13	Syndicus, Inc.	08/22/2012	275 Cape Saint John Road	Annapolis	MD	21401
14	Wavelength Information Services, Inc.	03/01/2011	504 Franklin Avenue PO Box 739	Berlin	MD	21811
15	Zane Networks, LLC	06/23/2011	8070 Georgia Avenue Suite 407	Silver Spring	MD	20910
MSOs IN CANDIDACY STATUS						
Count	MSO	Address		City	State	Zip
1	Doctors' Choice Medical Services, Inc.	2300 Research Blvd.Suite 100		Rockville	MD	20850
2	HealthPro Business Solutions	24 Industrial Park Drive		Waldorf	MD	20602

⁵⁶ More information about MSOs and State designation is available at: http://mhcc.dhmm.maryland.gov/hit/mso/Pages/mso_main.aspx.

Appendix F: Medicare Meaningful Use Payments by State

The table below provides information on each state's Medicare population,⁵⁷ the number of physicians practicing in the State,⁵⁸ and the number of Medicare eligible professionals (EPs) that have been paid through September 2012.⁵⁹

State	Medicare Population #	Number of Physicians #	Number of Medicare Eligible Professionals Paid #
Alabama	881,686	10,405	1,173
Alaska	69,301	1,644	56
Arizona	977,447	15,222	1,354
Arkansas	552,375	5,729	612
California	5,000,198	94,683	5,831
Colorado	667,277	12,768	1,312
Connecticut	586,545	12,179	1,091
Delaware	157,289	2,647	417
District of Columbia	81,260	6,198	200
Florida	3,527,830	46,617	5,179
Georgia	1,318,733	21,496	2,095
Hawaii	217,678	3,467	346
Idaho	242,889	2,721	192
Illinois	1,907,859	35,307	4,450
Indiana	1,048,499	14,686	1,456
Iowa	531,209	7,105	1,040
Kansas	448,215	6,398	865
Kentucky	793,271	10,178	1,010
Louisiana	718,037	11,132	545

⁵⁷ Kaiser Family Foundation: *State Facts, Total Number of Medicare Beneficiaries*, 2011. Data Source: Mathematica Policy Research analysis of CMS State/County Market Penetration Files. Available at: <http://www.statehealthfacts.org/comparemaptable.jsp?ind=290&cat=6>.

⁵⁸ Kaiser Family Foundation: *State Facts, Total Professionally Active Physicians*, August 2012. Data Source: Special data request on State Licensing Information on Redi-Physicians from Redi-Data, Inc. Available at: <http://www.statehealthfacts.org/comparemaptable.jsp?typ=1&ind=934&cat=8&sub=100&sortc=3&o=a>. Physicians include Doctors of Medicine and Doctors of Osteopathic Medicine, as well as allergy and immunology, dermatology, geriatrics, medical genetics, neurology, ophthalmology, orthopedics, otolaryngology, pathology, plastic surgery, radiology, and urology.

⁵⁹ CMS Medicare and Medicaid EHR Incentive Program, *Combined Medicare and Medicaid Payments by States*, January 2011 to September 2012. Available at: http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Downloads/September_PaymentsbyStatesbyProgrambyProvider.pdf.

State	Medicare Population #	Number of Physicians #	Number of Medicare Eligible Professionals Paid #
Maine	276,467	4,097	339
Maryland	827,426	19,919	1,331
Michigan	1,104,483	29,824	3,920
Massachusetts	1,728,338	30,865	2,428
Minnesota	819,803	15,362	2,478
Mississippi	516,809	5,649	613
Missouri	1,040,491	16,707	1,810
Montana	177,835	2,073	177
Nebraska	287,565	4,456	436
Nevada	379,860	5,215	484
New Hampshire	231,444	3,666	1,033
New Jersey	1,378,274	24,986	2,837
New Mexico	329,994	4,820	180
New York	3,093,591	68,133	4,892
North Carolina	1,568,429	23,196	2,456
North Dakota	110,827	1,616	257
Ohio	1,971,260	34,382	4,305
Oklahoma	625,924	8,041	790
Oregon	653,905	10,367	1,502
Pennsylvania	2,350,558	41,123	4,952
Rhode Island	188,502	4,021	337
South Carolina	820,947	10,392	697
South Dakota	141,079	1,874	259
Tennessee	1,109,791	16,471	1,487
Texas	3,187,332	53,822	5,197
Utah	299,427	5,705	448
Vermont	117,393	2,015	98
Virginia	1,203,462	20,615	2,589
Washington	1,029,529	18,702	1,617
West Virginia	392,021	4,731	573
Wisconsin	948,489	15,195	2,630
Wyoming	84,076	1,051	81
Total	48,722,929	829,673	82,457

Appendix G: Medicare and Medicaid EHR Incentives

The following tables identify the national average in comparison to the Maryland actual number of hospitals and eligible professionals (EPs) that have registered for the Medicare and Medicaid meaningful use incentive payment. The tables also identify the national average in comparison to the Maryland actual amount of Medicare and Medicaid meaningful use incentive payments made to hospitals and EPs.⁶⁰

Medicare EHR Incentives				
<i>As of September 30, 2012</i>				
Provider Type	Registered (#)		Payments (\$M)	
	National Average	Maryland Actual	National Average	Maryland Actual
Hospitals ¹	78	37	89.2	32.6
EPs ²	3,592	3,987	49.3	23.5
Total	3,670	4,024	138.5	56.1

¹ Hospitals includes Medicare and Medicare/Medicaid qualified.

² Includes doctors of medicine, osteopathy, dental surgery, dental medicine, podiatry, optometry, or chiropractors.

Medicaid EHR Incentives				
<i>As of September 30, 2012</i>				
Provider Type	Registered (#)		Payments (\$M)	
	National Average	Maryland Actual	National Average	Maryland Actual
Hospitals ³	76	37	79.8	20.1
EPs ⁴	1,933	1,767	43.2	6.3
Total	2,009	1,804	123	26.4

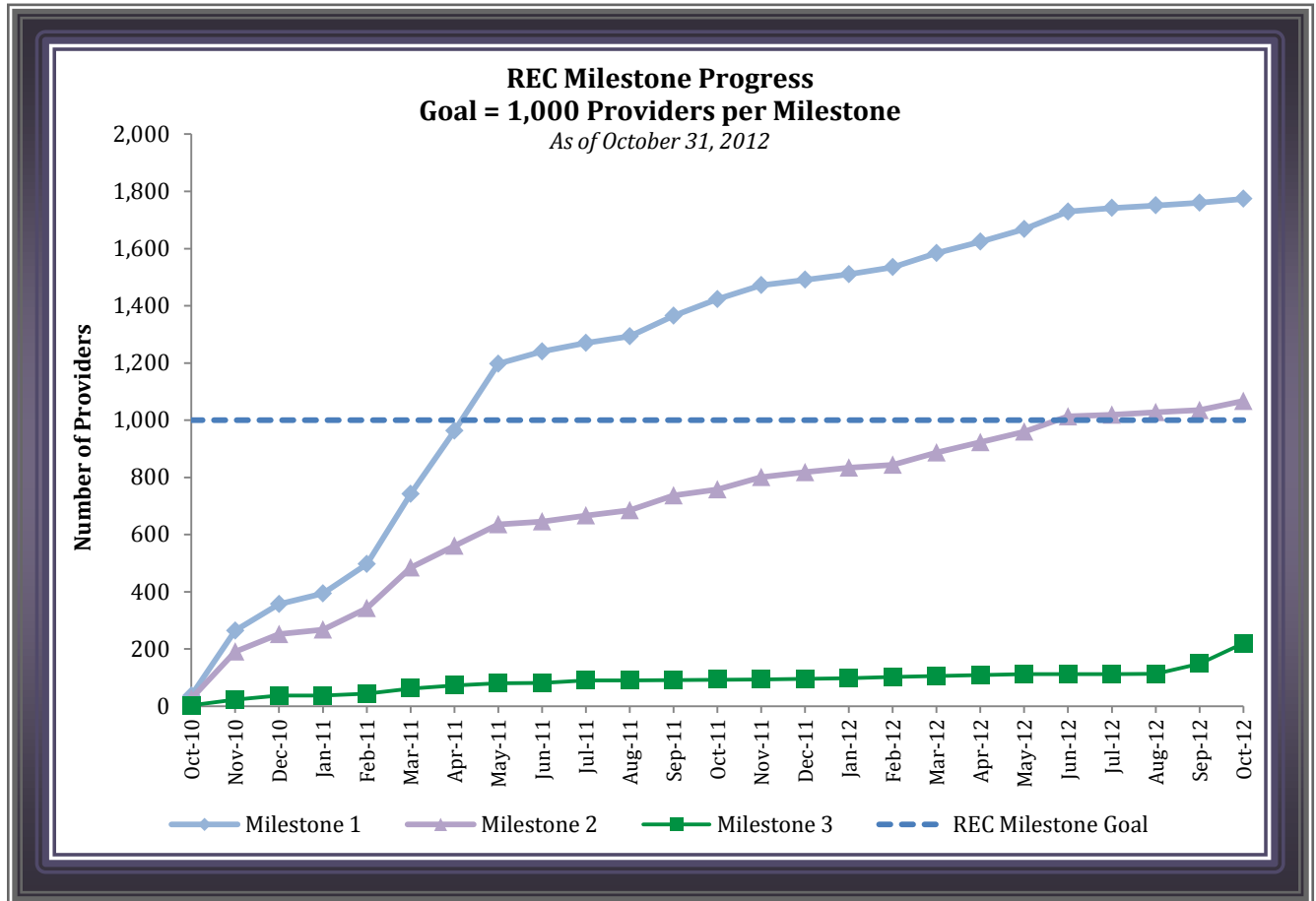
³ Hospitals include Medicaid and Medicare/Medicaid qualified.

⁴ Includes physicians (MD and DO), dentists, nurse practitioners, certified nurse-midwives, or physician assistants (working for a federally qualified health center only) that meet the minimum 30 percent Medicaid patient volume threshold or 20 percent for pediatricians.

⁶⁰ CMS EHR Incentive Programs, Data and Program Reports. January 2011 to September 30, 2012. Available at: <http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/DataAndReports.html>.

Appendix H: REC Performance Goals and Achievements

The graph below provides a detailed look at progress of the REC in achieving milestone goals. Milestone 1 includes the number of providers enrolled in the program, milestone 2 includes the number of providers that have adopted an EHR and are using certain functionalities of the system, and milestone 3 is the number of providers that have achieved meaningful use.



REC Progress <i>As of October 31, 2012</i>			
Milestone	Provider had an EHR when signed up with the program # (%)	Provider did not have an EHR at sign up with the program # (%)	Total # (% of goal)
Milestone 1	698 (39)	1,076 (61)	1,774 (177)
Milestone 2	587 (55)	480 (45)	1,067 (107)
Milestone 3	82 (37)	138 (63)	220 (22)

Appendix I: State Health Information Technology Plan – Key Sections

The below are excerpts from the initial Office of the National Coordinator for Health Information Technology (ONC) approved State Health Information Technology Strategic Plan (plan), 2010-2013. The plan is updated roughly annually.⁶¹ Text that has been excluded is indicated below.

[Begin quoted text]

Introduction

The Maryland Health Care Commission (MHCC) is pleased to submit its State Plan for review by the Office of the National Coordinator for Health Information Technology (ONC) under the *State Grants to Promote Health Information Technology Planning and Implementation Projects*. MHCC believes that its State Plan accurately reflects a strategic and operational plan that is consistent with the planning guidance. Efforts are currently underway to implement a private and secure statewide health information exchange (HIE) in Maryland. This ambitious plan for advancing health information technology (HIT) balances the need for information sharing with the need for strong privacy and security policies, while maintaining a judicious approach to funding the HIE. Establishing an HIE with sound interoperability will ensure that all health information is securely delivered electronically in real-time to individuals and their providers (an individual licensed in the State of Maryland to practice medicine) when needed, and that this information is available for analysis for continuous improvement in the delivery of care and research. The statewide HIE will also allow providers to maximize incentive funding under the *American Recovery and Reinvestment Act of 2009* (ARRA).

Maryland has moved into the implementation phase for the statewide HIE after several years of planning. The strategic approach consisted of the following key activities:

- ***Building trust and consensus.*** Maryland believes that broad agreement on key policy issues – particularly privacy, security, and data use – should precede the development of an HIE. MHCC brought together a series of multi-stakeholder groups to discuss a range of policy issues and published a number of major policy reports based on these consensus-building deliberations. These deliberations formed the foundation for subsequent actions directed towards planning and implementing a statewide HIE.
- ***Planning the statewide HIE.*** MHCC funded two independent multi-stakeholder groups in 2008 to develop two competing approaches for the governance, architecture, privacy and security, access and authentication, financing, and establishment of a sustainable business model. These reports were evaluated and the best ideas from the two groups, and from a study of HIEs in various stages of development nationwide, were consolidated into a Request for Applications (RFA) released on April 15th of this year.
- ***Designating and funding Maryland's statewide HIE.*** The MHCC received four responses to the RFA. A technical panel consisting of internal and external reviewers recommended that the Chesapeake Regional Information System for our Patients (CRISP) receive up to \$10

⁶¹ The 2010-2013 plan and the 2011-2014 plan are available online at:
<http://mhcc.dhmdh.maryland.gov/hit/Pages/publications.aspx>.

million in funding from Maryland's all-payer rate setting system to implement a statewide HIE. The Maryland Health Services Cost Review Commission approved the funding on August 5th. CRISP is a particularly strong not-for-profit collaborative effort among the Johns Hopkins Health System, MedStar Health, University of Maryland Medical System, Erickson Retirement Communities, and Erickson Foundation, with notable support from two dozen major stakeholders across the State, including minority and safety net provider interests.

- ***Establishing a Policy Board with Strong Representation from the General Public.*** While a collaborative with strong provider representation will develop and operate the HIE, the Policy Board associated with the MHCC will establish the policies governing the exchange. This separation of responsibilities assures a strong role for the public in both policy development and operational oversight. Members of the Policy Board have been selected to assure expertise, breadth of stakeholder representation, and a strong consumer voice in establishing the policies essential to building trust.

The statewide HIE is designed to deliver essential patient information to authorized providers at the time and place of care to help assure appropriate, safe, and cost-effective care; store and transmit sensitive health information privately and securely; provide patient access to important elements of an individual's clinical record to help engage patients in their own care; provide a means for the patient to exercise appropriate control over the flow of private health information, both as a matter of right and as a means of assuring trust; provide a secure method of transmitting administrative health care transactions; and gather information from the health care system to research efficiency and cost-effectiveness of care, to measure quality and outcomes of care, and to conduct biosurveillance and post-marketing surveillance of drugs and devices.

[Text excluded for purposes of this report]

Strategic Plan for a Statewide HIE

General Topic Guidance

Environmental Scan

Maryland has a strong foundation and a number of special advantages above and beyond its convenient location for implementing a statewide HIE in collaboration with ONC. In 2008, the U.S. Census Bureau reported Maryland's population at roughly 5.6 million. The State's diverse population and size have made it relatively easy for stakeholders from around the State to meet regularly to plan a single statewide HIE. Maryland is rich in geographic and cultural diversity that includes rural and inner city areas and diverse minority populations. The State has a long tradition of hospital-hospital and hospital-government collaboration on projects, including the award-winning Maryland Patient Safety Center. Located in the State are three prominent regional medical systems (Johns Hopkins, MedStar, and the University of Maryland), several local hospitals belonging to national hospital systems, and a number of independent community hospitals.

Hospital reimbursement is through the all-payer rate setting system that effectively shares the financial burden of uncompensated care across all hospitals. This system funds projects that are in the financial interest of the overall health care system, including the initial development of an HIE. Maryland has an extensive record of participation in numerous pilot projects; the most recent and

relevant is that Maryland was selected as one of four states to participate in the Centers for Medicare and Medicaid Services' (CMS) Demonstration Project for EHR adoption in priority primary care provider practices. The State has renowned academic programs in clinical, public health, and health services research, and has State health care leaders with experience at the national level in health care foundations, federal agencies (including the National Institutes of Health, the Agency for Healthcare Research and Quality, CMS, the Council of Economic Advisors, the Congressional Budget Office, and National Economic Council), and more specifically in national groups involved with health information technology (HIT), including ONC and the Markle Foundation's Connecting for Health Steering Group.

[Text excluded for purposes of this report]

HIE Development and Adoption

Vision, Goals, and Objectives

Three years ago the MHCC began the process of planning the implementation of a statewide HIE by engaging numerous stakeholders to address the fundamental policy issues and plan a course of action. State legislation passed in 2009 required the MHCC to designate a multi-stakeholder group to implement the statewide HIE; CRISP was selected based upon the breadth of stakeholders and their response to the State's RFA. The statewide HIE makes possible the appropriate and secure exchange of data, facilitates and integrates care, creates efficiencies, and improves outcomes. MHCC's efforts are targeted towards developing a widespread and sustainable HIE that supports the meaningful use definition that qualifies providers for CMS incentive payments. This strategy also supports State public health programs to ensure that public health stakeholders prepare for HIE and mobilize clinical data needed for consumer engagement and health reform in Maryland.

[Text excluded for purposes of this report]

Statewide HIE Design Characteristics

The statewide HIE will utilize a hybrid technology approach, maintaining confidential health care data at the participating facilities and providers, with consumers having an option to request that their information be held in a Health Record Bank (HRB) or Personal Health Record (PHR) account that they control. The HIE will perform as a secure and trusted conduit rather than a centralized repository.

The statewide HIE will consist of a hybrid approach that combines a federated or distributed model, keeps the data at its source facilities or with providers, and uses the HIE as the conduit for sharing. In the proposed model for development in Maryland, a hybrid system is conceived of one that consists of a single core infrastructure vendor that serves as a platform for expanding functionality of the utility by adding different vendor applications to the core system. For instance, the core infrastructure selected may consist of an exchange utility with a master patient index (MPI). The MPI in most solutions lacks the robust features necessary to support advanced matching of consumer's to their health information. Available on the market are vendor solutions specific to MPIs that would serve as an alternative to MPI in a core infrastructure solution (i.e., Initiate). In general, the HIE provides a roadmap for properly routing information to the appropriate location. The HIE

will maintain a central MPI and a separate registry (Registry) of the record's location within the system. The design also includes the use of a HRB/PHR that is controlled by the consumer, which does not use MPI or Registry. The hybrid model also allows the centralization of records when directed by consumers. This does not constitute a centralized record, but rather directory information that allows records to be identified and located throughout the distributed system. The hybrid model used in Maryland is less threatening to participants and individual consumers because it is less disruptive to existing, trusted relationships between individuals and their care providers, and raises fewer regulatory issues in today's privacy and security focused regulatory environment. A disadvantage of a hybrid approach is the absence of a single database that can be queried for a variety of health services research, public health reporting, and post marketing surveillance purposes. This disadvantage can be minimized by efficient queries to the statewide HIE, long retention times on edge servers, and special purpose databases with privacy protections suspect to the statewide HIEs controls and data sharing policies. A single HRB associated with the statewide HIE can also deliver robust resource to monitoring capability together with consumer control.

The statewide HIE will allow consumers to have access to and control over their health information through an HRB/PHR application.

The statewide HIE will integrate with HRB/PHR applications that meet appropriate technology standards. Information in a PHR may be generated directly from the records of health care providers or entered by the patient. While records from a PHR may not be assigned the same value by providers as either a hospital or physician-generated record since consumers may add information to the record, PHRs allow individuals virtually complete control over their own information and how to share it. For many consumers, this will likely be an attractive option.

The statewide HIE will allow individuals the freedom to participate or not participate in the HIE.

The statewide HIE will enable individuals to have the right to be informed of their provider's access to and use of the HIE to access their data. Consumers will have the capability to opt-out of participation entirely. If a consumer elects to opt-out, providers will not have the ability to exchange that consumer's information. The HIE will inform individuals of their right not to participate through an intensive public awareness campaign and the consumer's rights related to it. A simple and visible opt-out process will be included at each point of care within the HIE.

The statewide HIE will use standards consistent with emerging national technology standards.

The statewide HIE will use federally-endorsed standards and integration protocols that bridge proprietary boundaries. Making this a core HIE principle will not only ensure that the HIE is not vulnerable to vendor selection issues and risks, but also compatible with HIEs developed by other states and the federal initiative.

The statewide HIE will act now but build incrementally.

Growth of the statewide HIE will be based on an incremental strategy, building from individual Use Cases, with individual HIE services that have a demonstrated need and evident clinical value to consumers and care providers. The alternative, which is the implementation of an HIE that immediately seeks to provide widespread exchange of all health information to care providers, imposes significant challenges. The leading challenge is setting such high initial technological and user acceptance thresholds that the HIE misses the current window of opportunity. The HIEs incremental approach is already underway with the first Use Case, the provision of medication information to the emergency departments of participating facilities.

The statewide HIE will ensure focus on the medically underserved.

Amid the inherent challenges of HIE, underserved populations must not be overlooked. The MHCC will ensure that resources and focus remain directed to this particular component of the overall HIE effort, as it represents an important part of the solution and a key part of the quality, access, and cost challenges in health care. The success of the HIE will ultimately require that all constituents using the exchange engage in its development.

[Text excluded for purposes of this report]

Domain Requirements

[Text excluded for purposes of this report]

Technical Infrastructure

The statewide HIE was designed for sufficient flexibility and the capability of growing and adapting over time. Attracting and retaining both private and public stakeholders, creating a level playing field, and caring for the needs of those with limited resources are critical elements to a statewide HIE. The architecture was specifically developed using national standards. Implementation of a standards-based solution will offer immediate value that supports connectivity to the National Health Information Network (NHIN). As part of the technology evaluation and procurement process, the statewide HIE will complete an assessment of the technology for compliance with the standards endorsed by the Secretary of the Department of Health and Human Services (HHS), and will only integrate technology that meets these requirements. The statewide HIE will monitor the work of ONC's Health IT Policy Committee and the Health IT Standards Committee to ensure that the technical infrastructure includes those standards endorsed by HHS. The statewide HIE anticipates using CONNECT to interface with the NHIN in early 2011. The MHCC is expected to annually engage an independent audit team that will audit the financial, operational, and technical components of the statewide HIE. As part of the audit process the audit team will be required to validate that HHS published standards are in place by the statewide HIE. The accountability for addressing concerns identified by the audit team rests with the statewide HIE Board of Directors. The statewide HIE anticipates that eventually meaningful use will require providers to exchange information among each other and work cooperatively with providers across state borders to coordinate patient care. The statewide HIE anticipates communicating the lessons learned

regarding the technical infrastructure and other aspects of data sharing directly with ONC and through collaboration with the designated Regional Center.

[Text excluded for purposes of this report]

Safeguarding Data

The statewide HIE will maintain the confidentiality of patient information by establishing policies related to securing the integrity and ensuring the availability of electronic patient information. The statewide HIE will comply with the 18 broad standards under the HIPAA Security Rule. The Advisory Board will define the security requirements that must be implemented. Vendor technology partners will be required to demonstrate that their solutions meet or exceed the security requirements. Participation agreements will stipulate that users comply with the HIPAA requirements. The statewide HIE will maintain a log of activity for auditing purposes.

The statewide HIE will document the security policies, procedures, and decisions, which the Board of Directors will review. The statewide HIE will mitigate risk through a routine systematic and analytical approach that identifies and assesses these problems. The risk analysis will develop appropriate and reasonable protections, and anticipate risks and implement security measures. The statewide HIE is well positioned to verify the accuracy of information through audit logs and conduct annual penetration testing to identify vulnerabilities and determine the adequacy of the security protections. The statewide HIE will comply with all aspects of the Security Rule on an ongoing basis.

The statewide HIE will provide security of protected health information (PHI) through a number of leverages. The physical locations, networks, platform, and application technologies that will support data sharing are expected to provide ample security on all levels. The statewide HIE will deploy the following hosting and network practices for any systems related to PHI. First, there is physical machine security and servers operating in Tier 4 data centers that can pass the internationally recognized SAS 70-II standard requirements. This includes physical precautions such as HVAC units, fire retardant measures, strict host and guest authentication/sign in policies, and more. Next, network security must be addressed. Servers will be installed behind multiple firewalls configured for high availability and minimal vulnerability. All servers will be installed with the latest versions of Windows 2003 Server and Symantec AntiVirus Corporate Edition. Operating system security and virus definition updates will be performed regularly. Finally, network transfer security will be established. For web services, secure network transport will be provided using components such as SAML, the X.509 token profile, XML encryption, and XML digital signature.

Credentialing

[Text excluded for purposes of this report]

The statewide HIE will develop a participation agreement that will codify the relationship with various participants. Providers interested in participating in the statewide HIE will have the ability to review the terms and conditions of the participation agreement on the statewide HIE's website. The logic behind arriving at a consistent participation agreement that is entered into by each participant without substantial or material modification is to ensure that "transitive trust" can be

maintained across the entire exchange. Transitive trust is the mutual trust between HIE participants rooted in the knowledge that each participant has entered into a consistent participation agreement that defines appropriate usage and requirements for participation, thereby avoiding the participant-to-participant need to know every individual provider and employee accessing the exchange. This approach acknowledges understanding on the terms and conditions in a participation agreement for a future state, establishment of a robust electronic exchange (including any potential data types), and gaining community-wide agreement by each participant. The statewide HIE is expected to complete the credentialing process for providers participating in the statewide HIE. Consumer credentialing will occur directly with the provider at the point of care.

[Text excluded for purposes of this report]

Legal/Policy

Privacy and Security

[Text excluded for purposes of this report]

Health Insurance Portability and Accountability Act

The Health Insurance Portability and Accountability Act of 1996 (HIPAA) was used as a guide for the design of the statewide HIE. It is clear that HIPAA does not require any patient consent or authorization for the exchange of an individual patient's health information among health care providers for treatment purposes. A patient's consent to such exchanges is viewed as implicit in the patient's consent to receive medical care. Certain other exchanges are also permitted without either consent or authorization under both HIPAA and the Maryland's Confidentiality of Medical Records Act (MCMRA), generally for payment purposes and for certain health care operations constituting quality assurance, reviewing provider qualifications, and fraud and abuse monitoring or response. HIPAA does permit disclosures to government agencies for a number of lawful purposes, including public health surveillance without patient consent or authorization. The consensus among the legal community is that other disclosures, as further Use Cases are adopted, will require patient specific authorization, which the patient can withhold, in a form that meets the requirements of HIPAA.

In December of 2008, the Office of Civil Rights under the HHS and HHS' HIPAA civil enforcement arm, issued a series of related papers on the HIPAA Privacy Rule and Health Information Technology (the Guidance). The Guidance constitutes an overview of HHS positions on the application of the HIPAA Privacy Rule to HIEs. In general the Guidance is consistent with, and supportive of, the type of HIE under construction in Maryland. The Guidance deals with a model of HIE that is, in operational terms, the same as the Maryland model for the statewide HIE. While recognizing that patients' consent to the exchange of their information among health care providers for treatment purposes is implied in the general consent to be treated and does not require specific affirmation by the patient, the Guidance favors allowing individuals the opportunity to opt-in or to opt-out of having their information flow through the HIE. The Guidance refers in this regard to the option providers are given in the HIPAA Privacy Rule to seek patient consent for treatment uses and disclosures, even in the absence of a requirement that providers do so. The Guidance affirms that an HIE, as a business associate, can maintain a MPI and a Registry for patients of participating providers, in advance of any actual treatment communications for those patients.

State Laws

The MCMRA is substantively consistent with HIPAA with regards to implicit consent and the other HIPAA issues discussed in the preceding section. Under the Act, an individual's health information may be exchanged among healthcare providers with only implicit consent for treatment purposes. In 2007, the Maryland Attorney General issued an opinion related to the MCMRA which addressed the requirement of a patient opt-in versus opt-out policy in an electronic health records system. According to the opinion, a patient does not have a right under the Act to opt-out of an HIE, to receive services from a health care provider while insisting that the medical records related to that service be excluded from the HIE. The Attorney General went on to conclude that the disclosure of medical record information solely for purposes of clinical care and payment and to the technical personnel needed to keep the system operational, as discussed above, is permitted without the authorization of the patient. The MCMRA does not prohibit an HIE from operating on the basis that participating health care providers must make all of a patient's medical records available through the HIE. However, because the law does not dictate appropriate policy, an important caveat to the interpreted allowance is that making a patient's medical records available does not imply those records are stored within the exchange.

In the opinion, the Attorney General concluded that the MCMRA would permit an HIE in which medical records are held by certain providers and referenced in the MPI facilitating other providers' access to the records as needed without the authorization of the patient. This indexing function is a critical element of the approach in Maryland. Provider workflow considerations and management of a patient's right to participate or to not participate are also of considerable concern in creating a consent policy. If patient participation rights were managed on a provider-by-provider, encounter-by-encounter basis, then providers would bear a significant, and potentially prohibitive, technical and workflow burden establishing processes for obtaining and tracking consent of their patients.

[Text excluded for purposes of this report]

Opt-Out as the Baseline Consent Process

The statewide HIE will function on an opt-out principle. By default, demographic information from any patient treated at a participating provider organization could be included in a MPI hosted by the exchange. Basic personal information such as name, gender, address, and birth date would be transmitted, captured, and stored in secure computers owned or contracted for use by the statewide HIE. A separate Registry database, which is core component of the HIE technology, will house information or metadata for what type of health information about a particular patient is in the exchange and where that information can be found. Both technical and privacy justifications drive the need for separate MPI and Registry databases, which is the preferable method, instead of keeping all patient identifying and record locating information in one database. This decision is a result of the work completed by the stakeholder workgroups during the *HIE Planning Phase*. A consumer's health information will not be captured and stored by the statewide HIE, and will remain with the participating entities. The statewide HIE will only serve as the roadmap and transport mechanism to find and retrieve records.

[Text excluded for purposes of this report]

Trust Agreements

Any health information exchange will require the development of a participation agreement that will codify the relationship between the HIE organization and the various participants. The statewide HIE will enter into a Data Use and Reciprocal Support Agreement (DURSA) with the participants of the statewide HIE. The statewide HIE DURSA will be developed using the work from HITSP and will be used for harmonizing data sharing efforts with bordering states and the NHIN. One of the challenges in creating such an agreement is that multiple participants, each of whom may have its own in-house legal counsel, will have to agree on the components and structure of the document. The logic behind arriving at a consistent participation agreement that is entered into by each participant without substantial or material modification is to ensure that transitive trust can be achieved and maintained across the statewide HIE.

Oversight of Information Exchange and Enforcement

The appropriate use policy is a document that will be included in the participation agreement defining specific appropriate and inappropriate uses of the statewide HIE by individuals who have been granted access. The participation agreement will also articulate the consequence of misuse. It is impossible to completely eliminate the possibility of breaches and misuse of information. Though the statewide HIE itself is not necessarily a HIPAA-covered entity, any related business associate agreements would render the business associate responsible for adequately safeguarding PHI. The Policy Board and the governance of the statewide HIE will mitigate the probability of breaches and misuse through appropriate policies, systems monitoring, and established security, training, and reporting procedures.

[Text excluded for purposes of this report]



David Sharp, Ph.D.

Director, Center for Health Information Technology

4160 Patterson Avenue

Baltimore, MD 21215

Phone: 410-764-3460

Fax: 410-358-1236

mhcc.dhmr.maryland.gov