

Health IT

Diffusion in Acute Care Hospitals

Commission Brief

September 19, 2013



The MARYLAND
HEALTH CARE COMMISSION

MHCC – A Resource to Hospitals

- **Information regarding electronic health records (EHRs), health information exchange (HIE), and telemedicine**
- **Health IT implementation strategy development support and evaluation**
- **Convener of CIOs and Chief Medical Informatics Officers**
- **Link to community-based ambulatory practices**
- **Shed light on best practices through reporting**

The Hospital Health IT Assessment

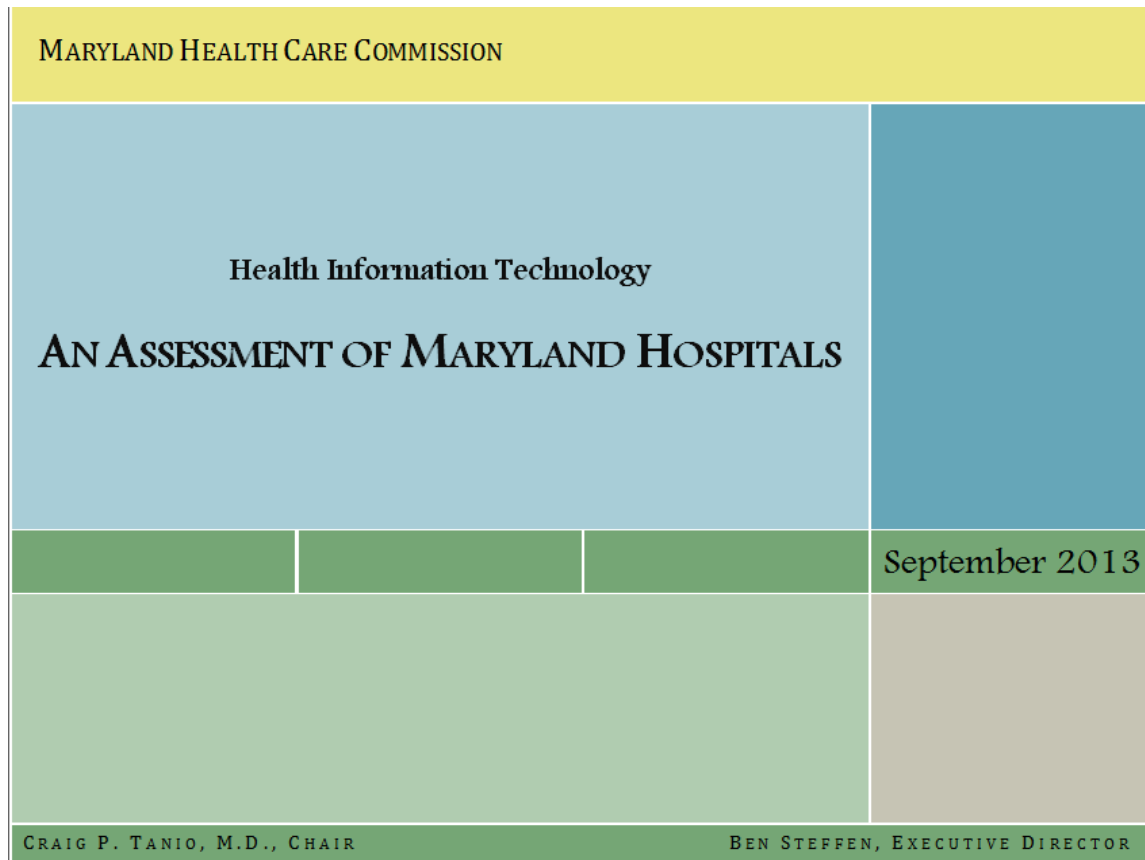
- Since 2008, MHCC has conducted an annual *Hospital Health Information Technology Survey* (survey)
 - Information self-reported by hospital Chief Information Officers (CIOs)
 - All 46 acute care hospitals
 - Data regarding hospital health information technology (health IT) adoption
 - Identifies hospitals' plans to implement technology
- Benchmarks Maryland hospital adoption rates against national adoption rates
- Provided several hospitals with recommendations regarding optimizing the use of health IT

Why Assess Health IT Adoption?

- Health IT serves as the infrastructure to empower providers and patients, make health care and the health system more transparent, enhance the study of care delivery and payment systems, and drive substantial improvements in care, efficiency, and population health
 - The Health Information Technology for Economic and Clinical Health (HITECH) Act, enacted as part of the American Recovery and Reinvestment Act of 2009 (ARRA), included roughly \$25.9 billion to promote the adoption and use of federally certified health information technologies
- Hospital health IT expansion initiatives are essential to Maryland's broader health IT strategy in building an interconnected system of care delivery where information about the patient is available at the point of care

New to the 2012 Assessment

- Patient portal adoption
- Federal EHR incentive payments received
- Meaningful Use (MU) attestation and threshold achievements
- Data submission to the State-Designated HIE
- Telemedicine technology use and service offerings





The Message....

- **Since 2008, the health IT adoption rate has increased roughly 25 percent**
- **Maryland hospitals exceed national adoption rates for 8 out of 10 technologies assessed**
- **Hospitals continue to take advantage of the federal incentives for the adoption and MU of health IT**
 - **As of 2012, approximately 83 percent of hospitals had received an incentive payment, totaling approximately \$67.9M**
 - **Approximately 54 percent of hospitals have attested to MU**



National vs. Local Penetration

- Roughly 44 percent of hospitals nationally have adopted a basic EHR, compared to about 83 percent statewide
- Approximately 72 percent of hospitals nationally have implemented CPOE, as compared to nearly 85 percent in Maryland
- Nationally, about 87 percent of hospitals have implemented at least one CDS functionality, comparatively, about 67 percent of hospitals in Maryland
- About 61 percent of national hospitals have partially or fully implemented e-prescribing as compared to approximately 22 percent locally



National vs. Local Penetration *(Continued)*

- **About 60 percent of hospitals nationally have adopted eMAR, compared with roughly 91 percent of Maryland hospitals**
- **The national adoption rate of BCMA among hospitals is about 27 percent compared to 78 percent for Maryland hospitals**
- **Around 20 to 25 percent of hospitals nationally are using ISS, which is an increase of 10 to 15 percent from 2009; locally, ISS is about 52 percent and has increased by roughly 11 percent since 2008**
- **Approximately 14 hospitals in Maryland have implemented a patient portal, nearly 24 are planning to implement**



Health System Comparison – At a Glance

- On average, health systems health IT adoption is about 65 percent, as compared to community hospitals at about 76 percent

Health System	Health IT Adoption
LifeBridge Health	83%
Upper Chesapeake Health System	83%
Johns Hopkins Medical System	71%
Adventist HealthCare	67%
University of Maryland Medical System	67%
MedStar Health	67%
Dimensions Healthcare	8%

Note: *Academic medical systems*



Discussion



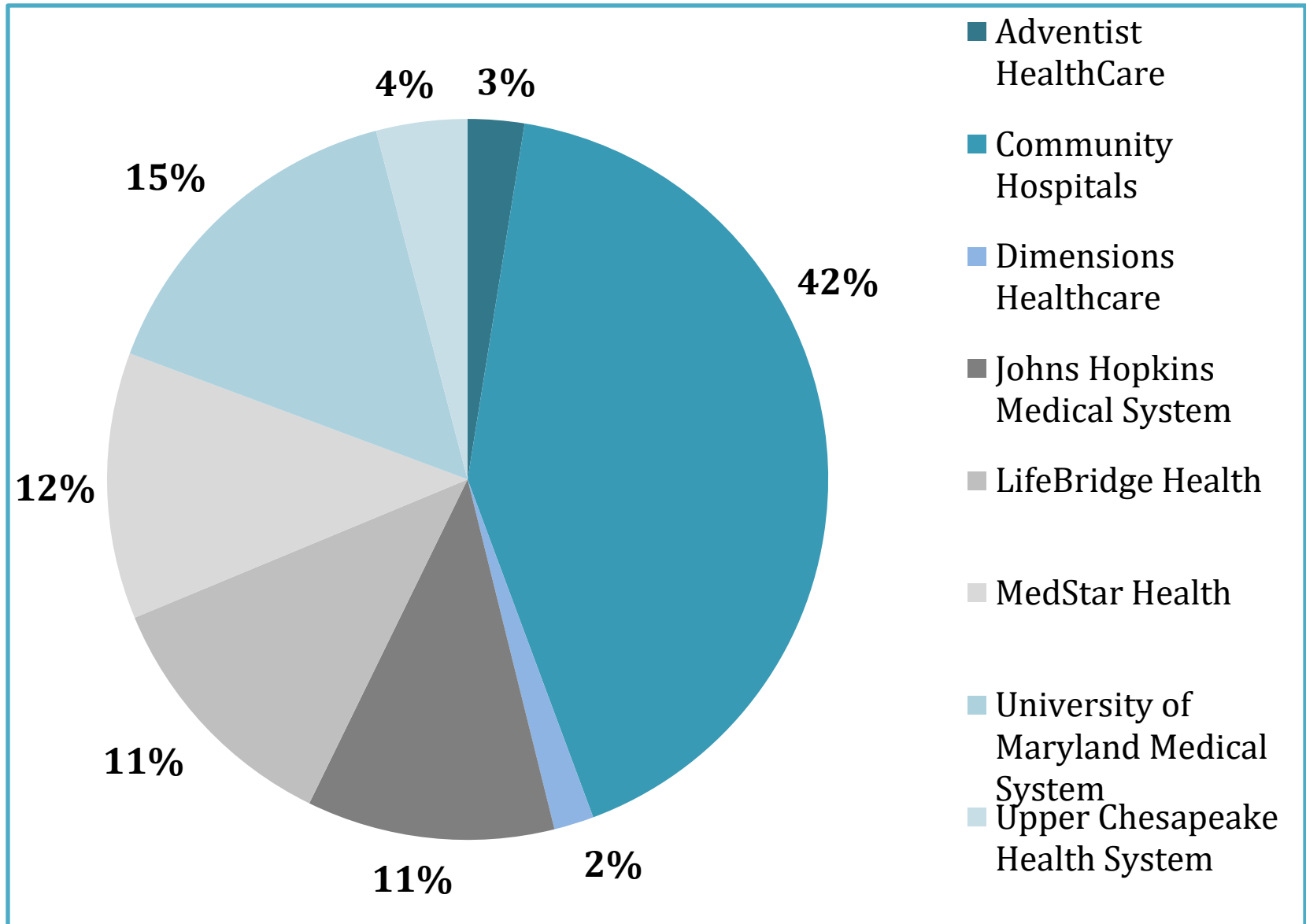


Data Reference

Overview of Hospital Health IT Adoption

Technology	2012 n=46 <i># of Hospitals</i>	2008 - 2012 Change <i># of Hospitals</i>	Maryland Hospitals %	Hospitals Nationally %
EHR	41	7	83	44
Computerized Physician Order Entry	39	15	85	72
Electronic Prescribing	10	7	22	61
Electronic Medication Administration Record	42	18	91	60
Barcode Medication Administration	36	22	78	27
Infection Surveillance Software	24	6	52	20 - 25
Health IT Adoption Rate (%)	70	25	70	48
Clinical Decision Support	31	14	67	87
Patient Portal	14	-	30	26
HIE Data Submission	46	46	100	30
Telemedicine	21	-4	46	-
MU Attestation	25	-	54	-
Federal Incentive Payment	38	-	83	80

Share of MU Payments



MU Requirement Attainment by Hospital

<i>MU Core Objective</i>	CPOE	Drug-Drug, Drug Allergy	Problem List	Medication List	Electronic Health Information	Discharge Information	Exchange Information
<i>Threshold Requirement</i>	30%	Attest	80%	80%	50%	50%	Attest
Medicare & Medicaid <i>n=14</i> <i>Average/Total</i>	83	14	94	97	79	56	14
Medicare Only <i>n=10</i> <i>Average/Total</i>	85	10	83	96	43	63	10
<i>MU Core Objective</i>	Protect Information	Medication Allergy List	Demographics	Vital Signs	Smoking Status	Quality Measures	
<i>Threshold Requirement</i>	Attest	80%	50%	50%	50%	Attest	
Medicare & Medicaid <i>n=14</i> <i>Average/Total</i>	14	98	96	85	89	11	
Medicare Only <i>n=10</i> <i>Average/Total</i>	10	97	96	91	95	9	
<i>MU Menu Objective</i>	Drug Formulary	Advanced Directives	Lab Results	Patient List	Immunization Registries		
<i>Threshold Requirement</i>	Attest	50%	40%	Attest	Attest		
Medicare & Medicaid <i>n=14</i> <i>Average/Total</i>	14	93	96	14	12		
Medicare Only <i>n=10</i> <i>Average/Total</i>	10	97	99	10	7		

2012 Health IT Adoption by Hospital

Hospital <i>n=46</i>	Total Units#	EHRs % Unit	e-Prescribe % Unit	CPOE % Unit	eMAR % Unit	BCMA % Unit	ISS	Telemedicine
Anne Arundel Medical Center	35	100	22	100	100	66		✓
Atlantic General Hospital	14	50	1	43	35	35		✓
Baltimore Washington Medical Center	33	100	48	100	58	0	✓	✓
Bon Secours Baltimore Health System	11	0	0	0	0	0		✓
Calvert Memorial Hospital	26	65	0	19	58	46		✓
Carroll Hospital Center	13	92	0	92	92	92	✓	✓
Civista Medical Center	19	100	0	5	11	11		
Doctors Community Hospital	19	100	0	5	100	53	✓	✓
Edward McCready Memorial Hospital	8	100	38	100	25	0	✓	
Fort Washington Hospital	21	14	0	14	48	14		
Frederick Memorial Hospital	24	100	0	100	96	83	✓	✓
Garrett County Memorial Hospital	9	44	0	11	11	11		
Greater Baltimore Medical Center	23	100	100	100	74	74		
Harford Memorial Hospital	7	43	0	100	43	43	✓	
Holy Cross Hospital	27	100	0	100	100	85	✓	✓
Howard County General Hospital	30	63	0	63	63	63	✓	✓
Johns Hopkins Bayview Medical Center	25	96	0	92	92	92		
Johns Hopkins Hospital	16	100	0	100	100	0	✓	✓
Laurel Regional Hospital	10	0	0	0	0	0		

2012 Health IT Adoption by Hospital *(Continued)*

Hospital <i>n=46</i>	Total Units#	EHRs	e-Prescribe	CPOE	eMAR	BCMA	ISS	Telemedicine
		% Unit	% Unit	% Unit	% Unit	% Unit		
MedStar Franklin Square Medical Center	47	32	0	5	38	32		✓
MedStar Good Samaritan Hospital	18	100	0	0	67	67		✓
MedStar Harbor Hospital	25	36	96	36	36	36	✓	
MedStar Montgomery Medical Center	18	100	0	100	100	94		✓
MedStar Southern Maryland Hospital Center	10	0	0	0	0	0		
MedStar St. Mary's Hospital	13	100	77	100	77	77		✓
MedStar Union Memorial Hospital	53	8	100	100	96	100	✓	
Mercy Medical Center	28	64	0	61	64	64	✓	✓
Meritus Medical Center	23	100	0	4	65	65	✓	✓
Northwest Hospital Center	23	100	0	87	69	69	✓	
Peninsula Regional Medical Center	24	100	0	100	100	100	✓	✓
Prince George's Hospital Center	8	0	0	0	0	0	✓	
Shady Grove Adventist Hospital	23	100	0	4	100	100		
Sinai Hospital	19	100	0	100	100	100	✓	
St. Agnes Hospital	69	100	0	25	32	20	✓	
Suburban Hospital	14	100	0	29	57	57		✓
Union Hospital of Cecil County	15	100	0	100	27	100	✓	✓
University of Maryland Medical Center	105	100	57	75	14	0	✓	✓

2012 Health IT Adoption by Hospital *(Continued)*

Hospital <i>n=46</i>	Total Units#	EHRs	e-Prescribe	CPOE	eMAR	BCMA	ISS	Telemedicine
		% Unit	% Unit	% Unit	% Unit	% Unit		
University of Maryland Medical Center Midtown Campus	15	100	0	0	73	73	✓	
University of Maryland Rehabilitation & Orthopedic Institute	28	68	68	68	68	0		
University of Maryland Shore Medical Center at Chester River Health	5	100	0	20	80	60		
University of Maryland Shore Medical Center at Dorchester	6	100	0	16	83	66		
University of Maryland Shore Medical Center at Easton	15	100	0	13	73	53		
University of Maryland St. Joseph Medical Center	26	0	0	0	75	0	✓	
Upper Chesapeake Medical Center	7	100	0	100	24	29	✓	
Washington Adventist Hospital	18	100	0	6	11	100		
Western Maryland Health System	35	100	0	3	46	46	✓	
Totals		80	21	54	59	48	24	21