



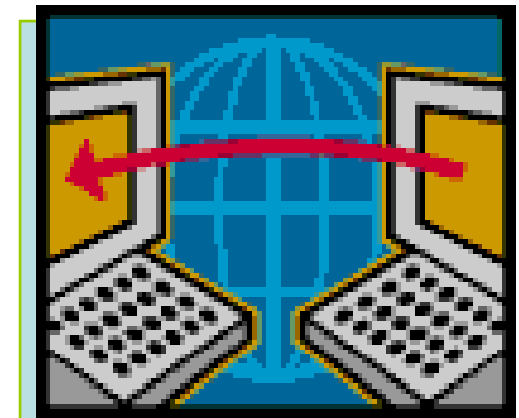
Better Communication for Better Healthcare

September 17, 2009

Rebecca L. Little
Senior Vice President
Medicity, Inc.

What is DHIN?

- Created statutorily in 1997 as a public instrumentality of the State of Delaware
- The Nation's *First* Statewide Clinical Health Information Exchange
- Public - Private Partnership
- Funded by Federal, State and Private Resources (beginning in 2005)
- Went live in May 2007



What is DHIN?

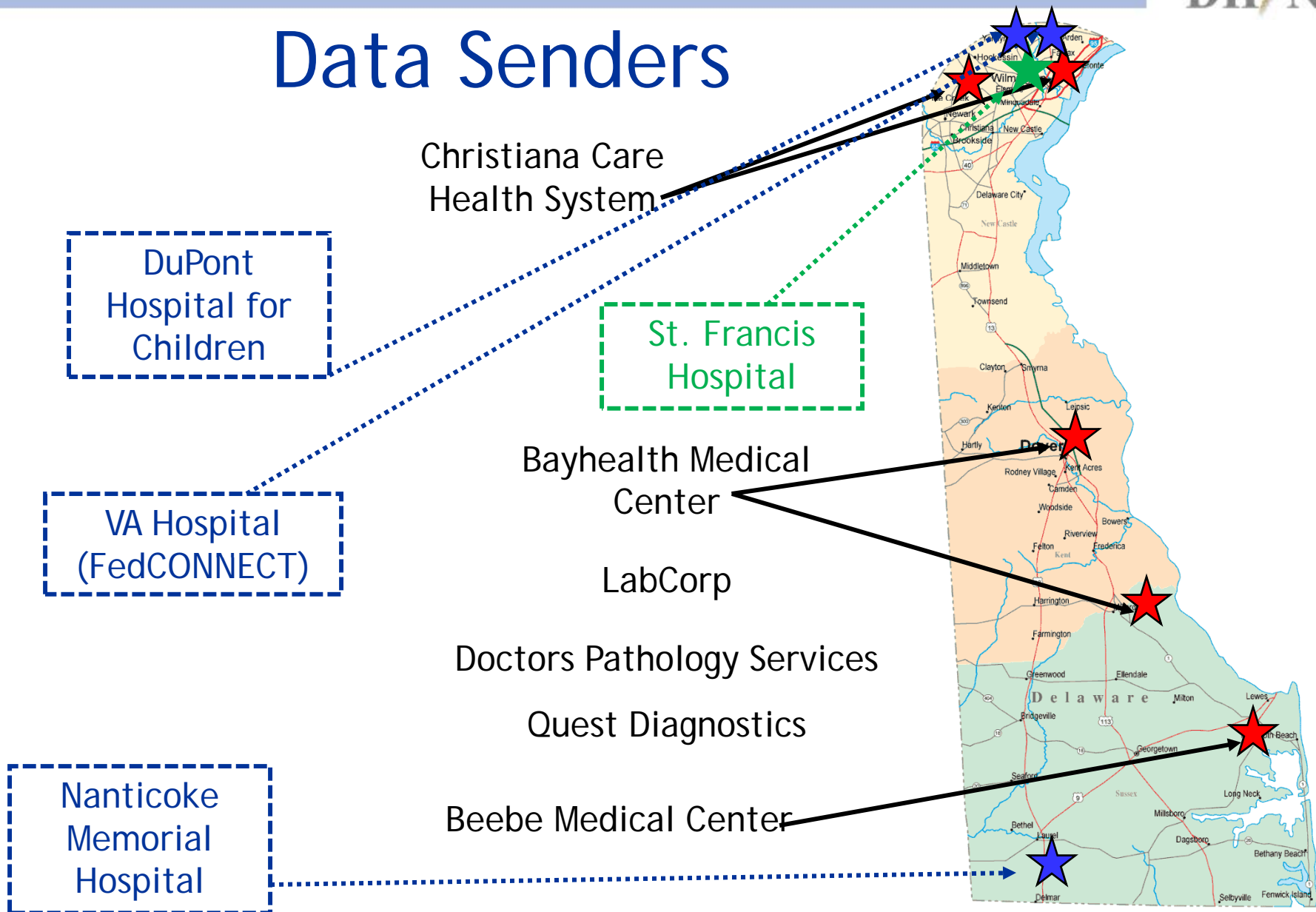
- Confederated Deployment w/ CMPI, RLS & Community Health Record
- Secure Results Delivery with Standard Result Format
 - Lab and Pathology Results
 - Radiology Reports
 - Admission Face Sheets
 - Transcribed Reports in process
- Patient Record Search/Patient Inquiry - Patient History since 2007
- Medication History Pilot
- Public Health Reporting
 - Real-time reporting of data from hospitals to the Division of Public Health's DERSS system

- Secure Inbox (68%)*
- Auto-Print/Fax (12%)
- EMR Interface (20%)
- EMR Interface in process (26%)

DHIN's Success

- Critical Mass
 - Over 50% provider adoption - 1,416 Providers
 - Distributes more than 85% of lab tests in DE
 - 648,000 unique patient records
 - 40 million transactions per year (and growing)
- Only HIE with both LabCorp and Quest Diagnostics Participating
- New data contributors in FY2010

Data Senders

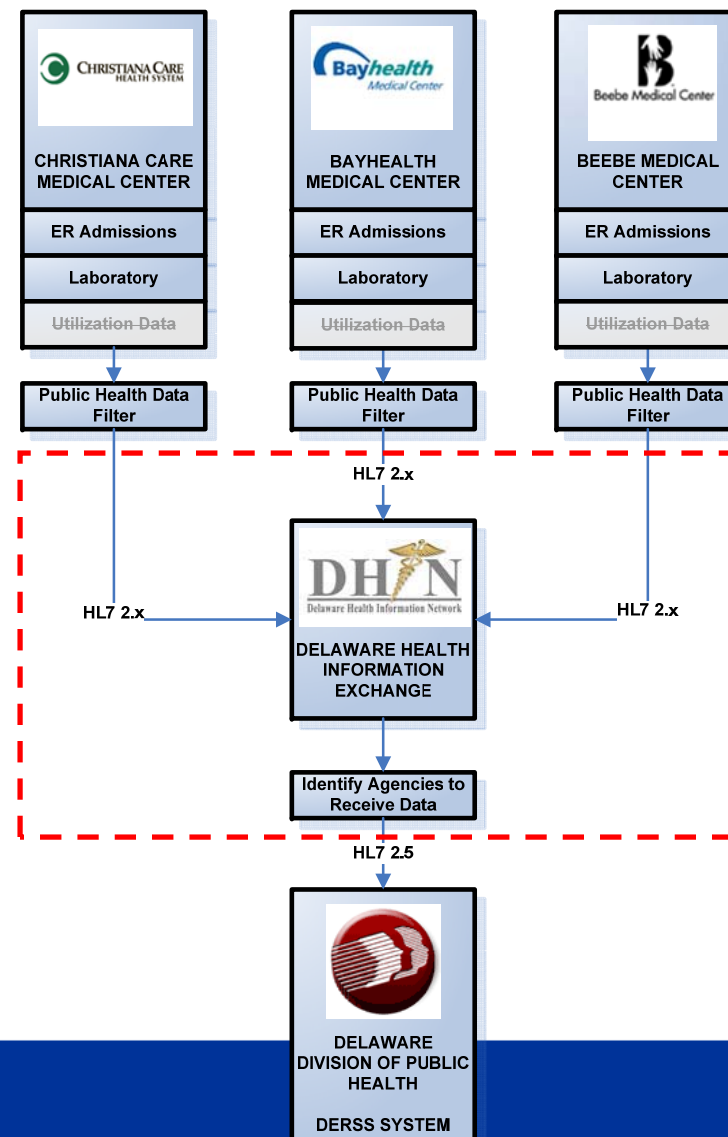


DHIN and National HIE Activities

- Appointment to the National HIT Standards Committee statutorily created by the ARRA
- Testimony to a congressional committee charged with defining “meaningful use” of health information technology
- Nationwide Health Information Network participation
 - Laboratory Use Case
 - Consumer Preferences Use Case
 - Biosurveillance Use Case
- Appointment to the CCHIT HIE Certification Workgroup
- American Health Information Management Association (AHIMA) State Level Health Information Exchange (SLHIE) Steering Committee

Bisurveillance DERSS/NHIN

DHIN Message Receipt, Validation and Routing



Message Receipt
 Message Validation
 Message Display to Provider
 Message Routing to DERSS

ProAccess™
PCS

Welcome, Ryan Barry



PATIENT SEARCH
 Name,MRN,SSN or DOB:

 Search

Clinical Inbox Print

Facility: All | Type: All | Viewed: All | Abnormals: All | Patient Class: Outpatient

Tue. 12/09/08
 Clinical Inbox (10)

INBOX LIST

Fax Remove Edit Columns < Previous 1 of 1 Next >

VIP	PATIENT NAME	FLAG	CONF	TYPE	DESCRIPTION	DATE/TIME ↑	FACILITY	LOC	RM/BED	VIEWED
<input type="checkbox"/>	CROWN, CHRISTOPHER	!			STOOL- SALM, SHIG, C	12/08/2008 11:47 AM	Christiana Care	ECCR	0001/03	
<input type="checkbox"/>	CROWN, CHRISTOPHER				FACE SHEET	12/08/2008 11:19 AM	Christiana Care	ECCR	0001/03	✓
<input type="checkbox"/>	TESTARI, IMA				FACE SHEET	12/08/2008 09:18 AM	Christiana Care	ECCR	000A/03	✓
<input type="checkbox"/>	BIRDES, BURT L				CULT,STOOL S/S/C/EHEC	12/05/2008 06:47 PM	Bayhealth Medical Center	BED 6		✓
<input type="checkbox"/>	BIG, ERNEST V				CULT,STOOL S/S/C/EHEC	12/05/2008 06:47 PM	Bayhealth Medical Center	BED 64	1825/2	
<input type="checkbox"/>	CORDON, BRETT				CULTURE, STOOL	12/05/2008 06:20 PM	Bayhealth Medical Center	ER	1825/2	✓

ENTRY DETAIL

TESTARI, IMA • MRN: 00000000042231 (CC) • 20 y/o FEMALE

PATIENT DEMOGRAPHICS

Name: TESTARI, IMA	MRN: 00000000042231 (CC)	Financial Class: 01
SSN:	DOB:	Occupation:
Race: CAUCASIAN	Age: UNK	Employer:
Address: 789 BRIGHT WAY BEAR, DE 19701	Gender: FEMALE	Employer Address:
Phone: (801) 555-3234	Marital Status: SINGLE	Employer Phone:
Religion:		

VISIT SUMMARY

Account: 00000000572128	Admitting Physician: DFES, EMERGENCY	Discharge Disposition:
Admit Type: E-O EMRGT	Attending Physician: DFES, EMERGENCY	Discharge Date/Time:
Admit Source: EMERGENCY ROOM ADMIT	Consulting Physician:	Accident Date/Time:
Admit Date/Time: 12/04/2008 09:47a EST	Primary Care Physician: BARRY, RYAN	Job Related:
Admit Diag Descr: SEVERE NAUSEA DIARRHEA AND VOMITTING	Referring Physician: ESTERLY, KATHERINE	
Hospital Service: EMERGENCY MEDICINE	Location: ECCR	
Patient Class: OUTPATIENT	Room/Bed: 000A / 03	

Clinical Inbox - Windows Internet Explorer

https://c5.dhin.net/PA5CERT/Office/ClinicalInbox/ClinicalInbox.aspx

File Edit View Favorites Tools Help

Clinical Inbox Interface Details

Welcome, Ryan Barry

Home Log Out Edit Postings Help

MEDICITY

ProAccess PCS

PATIENT SEARCH

Name, MRN, SSN or DOB:

Search

Tue. 12/09/08

Clinical Inbox (10)

Print Maintain Preferences

Clinical Inbox

Facility: All Type: All Viewed: All Abnormals: All Patient Class: Outpatient Filter

INBOX LIST

ENTRY DETAIL

Previous Next Forward

TESTARI, IMA • MRN: 00000000042231 (CC) • 20 y/o FEMALE Chart View

TEST	RESULT	OUT OF RANGE	REFERENCE	UNITS
STOOL- SALM, SHIG, C	Status: FINAL Priority: ROUTINE			
Date Collected: 12/13/2008 12:10p				
Specimen Source: STL				

BACTERIOLOGY (CULTURES)				

STOOL- SALM, SHIG, CAMPY				
Accession #:	08-339-0011	Collected:	13DEC08 1210	
Source:	STOOL	Received:	13DEC08 1210	
		Started:	13DEC08 1210	

STAINS AND PREPARATIONS				
GRAM STAIN		13DEC08 1212		
FEW WBC'S				

FINAL REPORT				
		13DEC08 1212		
SALMONELLA ENTERITIDIS				

SUSCEPTIBILITIES				
				S ENT
AMPICILLIN	MIC INT			S
AMPICILLIN/SULB	MIC INT			S
CEFAZOLIN	MIC INT			S
CEFTRIAXONE	MIC INT			S
CEFEPIME	MIC INT			S
GENTAMICIN	MIC INT			I
LEVOFLOXACIN	MIC INT			S
PIP-TAZOBACTAM	MIC INT			S
TRIMETH/SULBA	MIC INT			S

Internet 100%

DPH Biosurveillance Investigation

Automated Process

- Web Service Interface from DHIN to DERSS
- All chief complaints mapped to syndromes
- Unusual number of cases for a syndrome - automated alert to epidemiologists and other essential health personnel (next phase)
- Request of needed demographic data on cases
- Begin investigation

DERSS

Delaware
Electronic
Reporting and
Surveillance
System



Delaware Health
and Social Services

Division of Public Health

[Home](#) • [User Profile](#) • [Contact Us](#) • [About DERSS](#) • [Logout](#)

Login ID: Ashley.Love

Page Last Updated: 3:57 AM

Organization: Division of Public Health (DPH)

Role: DPH Epidemiologists

[ESC](#) [HDRM](#) [MPI](#) [GIS](#) [Public Health Case](#) [ER Syndromic Surveillance](#) [Reports](#)

[Event Search](#) [Maintain Keywords](#) [Maintain Unmatched Keywords](#) [Unassociated Keywords](#) [Graphs](#)

[Create New Event](#)

Event Search

[Event Search Tips](#)

Search Requirements: Please enter the Reporting Entity, Start and End Date

Reporting Entity*	Christiana Care Med. Center ▼	Start Date* (MMDDYYYY)	12132008	End Date* (MMDDYYYY)	12122008
Event Type	CC Chief Complaint ▼	<input checked="" type="radio"/> Mapped To Syndrome <input type="radio"/> UnMapped To Syndrome			
<input type="button" value="Search"/>					<input type="button" value="Clear"/>

Set Page Size: 10 ▼

[Create New Event](#)

Event Search					Event Search Tips
Search Requirements: Please enter the Reporting Entity, Start and End Date					
Reporting Entity*	<input type="text" value="Christiana Care Med. Center"/>	Start Date* (MMDDYYYY)	<input type="text" value="12132008"/>	End Date* (MMDDYYYY)	<input type="text" value="12132008"/>
Event Type	<input type="text" value="CC Chief Complaint"/>	<input checked="" type="radio"/> Mapped To Syndrome <input type="radio"/> UnMapped To Syndrome			
Search					Clear

Set Page Size:

Syndrome/Prodrome	S/P CT	Chief Complaint	ET	Ct	%	Event Date/Time	Date Rep	Event Details	Reporting Org
GI Syndrome	1	SEVERE NAUSEA DIARRHEA AND VOMITTING	CC			12/13/2008 8:55AM	12/13/2008	Details	Christiana Care Med. Center
GI Syndrome	1	SEVERE NAUSEA DIARRHEA AND VOMITTING	CC			12/13/2008 8:52AM	12/13/2008	Details	Christiana Care Med. Center
GI Syndrome	1	SEVERE NAUSEA DIARRHEA AND VOMITTING	CC			12/13/2008 8:45AM	12/13/2008	Details	Christiana Care Med. Center
GI Syndrome	1	SEVERE NAUSEA DIARRHEA AND VOMITTING	CC			12/13/2008 8:43AM	12/13/2008	Details	Christiana Care Med. Center
GI Syndrome	1	SEVERE NAUSEA DIARRHEA AND VOMITTING	CC			12/13/2008 8:41AM	12/13/2008	Details	Christiana Care Med. Center
GI Syndrome	1	SEVERE NAUSEA DIARRHEA AND VOMITTING	CC			12/13/2008 8:38AM	12/13/2008	Details	Christiana Care Med. Center

Automated Process for Biosurveillance: Public Health Benefits

- Faster outbreak detection
- Control or prevent spread of disease
- Early notification to healthcare providers and the public
- Activate Public Health personnel
- Immediate options for control
- Notification to other affected authorities

Results:

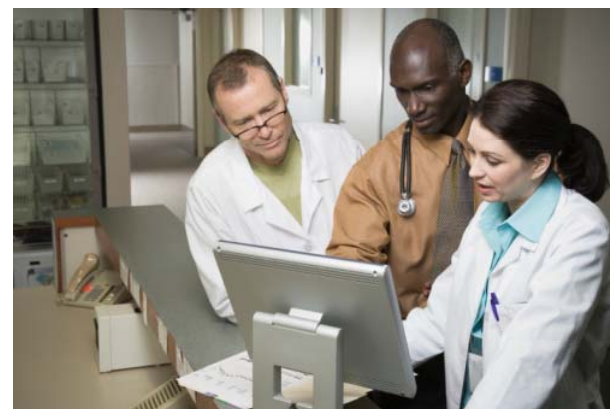
- Decreased hospital stays/costs
- Decreased morbidity and mortality
- Better allocation of resources
- Single integration project

Meaningful Use: How DHIN Can Help

- 10% of hospital orders and 100% of providers orders to be placed through electronic order entry.
- Incorporate Lab Results into EHRs as structured data
- Maintain an Active Medication List
- Perform/Provide Data for Medication Reconciliation
- Implement Drug-allergy, Drug Formulary, Drug-Drug Interactions
- Check Insurance Eligibility Electronically from Public and Private Payers where Possible.
- Submit Claims Electronically to Public and Private Payers
- Maintain an up-to-date “problem list” of current and active diagnoses based on ICD-9 and SNOMED
- Record Demographic Data (preferred language, insurance type, gender, race and ethnicity)

Meaningful Use: How DHIN Can Help

- Generate List of patients by specific conditions to use for quality improvement, reduction of disparities and outreach
- Patient Portal
 - Provide Patients with and Electronic Copy of their Health Information
 - Provide Access to Patient-Specific Education Resources
 - Send Reminders to Patients for Preventative and Follow-Up Care
- Capability to Exchange Key Clinical Information Electronically Among Providers of Care and Patient Authorized Entities
- Public Health Reporting
 - Immunization Registry
 - Electronic Syndromic Surveillance
- Proof of Compliance with HIPAA Privacy and Security Rules



DHIN - Medicaid Collaboration

- Interdependencies between Medicaid HIT Plan and HIE State Plan
- Administrative functions
- Directory of providers and services
- Provider-use monitoring to support meaningful use incentives

Fiscal 2010-2011

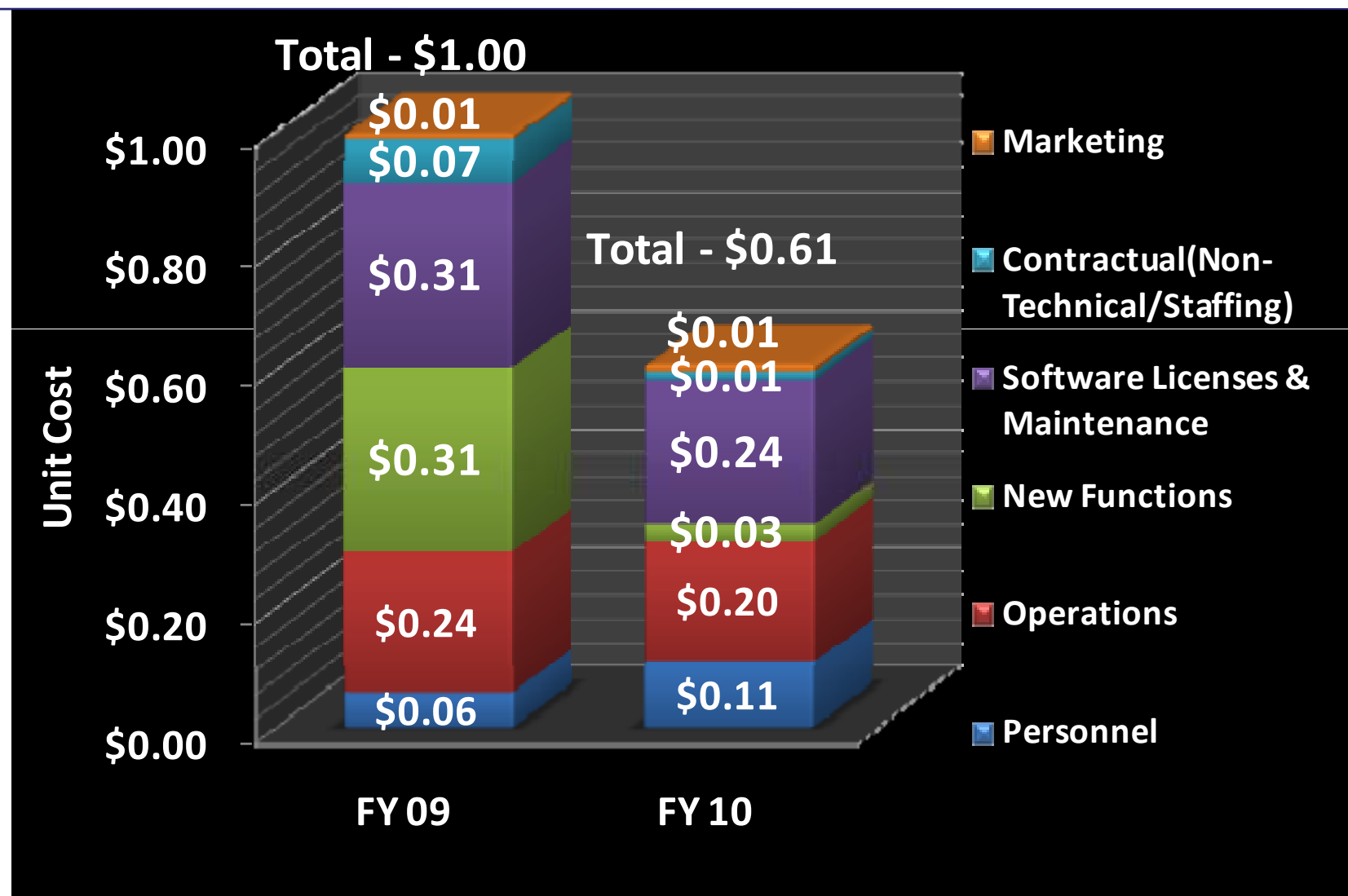
- EHR Primer
 - Includes eRx*, eOrders*, Quality Reporting*, PMS Connectivity
- Lab Order Initiation from EHR*
- PACS Interfaces (Images)
- LOINC Code Implementation
- Connectivity with Immunizations Registry*
- Claims Processing and Eligibility Verification*
- Production NHIN Connectivity*
- Continuity of Care Document exchange *
- ActiveHealth
- Health Plan integration

*HIE Cooperative Agreement Requirement

Sustainability Principles

- Complete capital phase in 2010
- Those who benefit from DHIN shall pay a proportionate share of the costs
- Add value functions that bring new stakeholders to the table
- Define long-term revenue opportunities
- Achieve market saturation

Funding Unit Cost - FY09 vs. FY10



Questions



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