



IS | MedStar

*Connecting People and Care
Through Integrated Information*

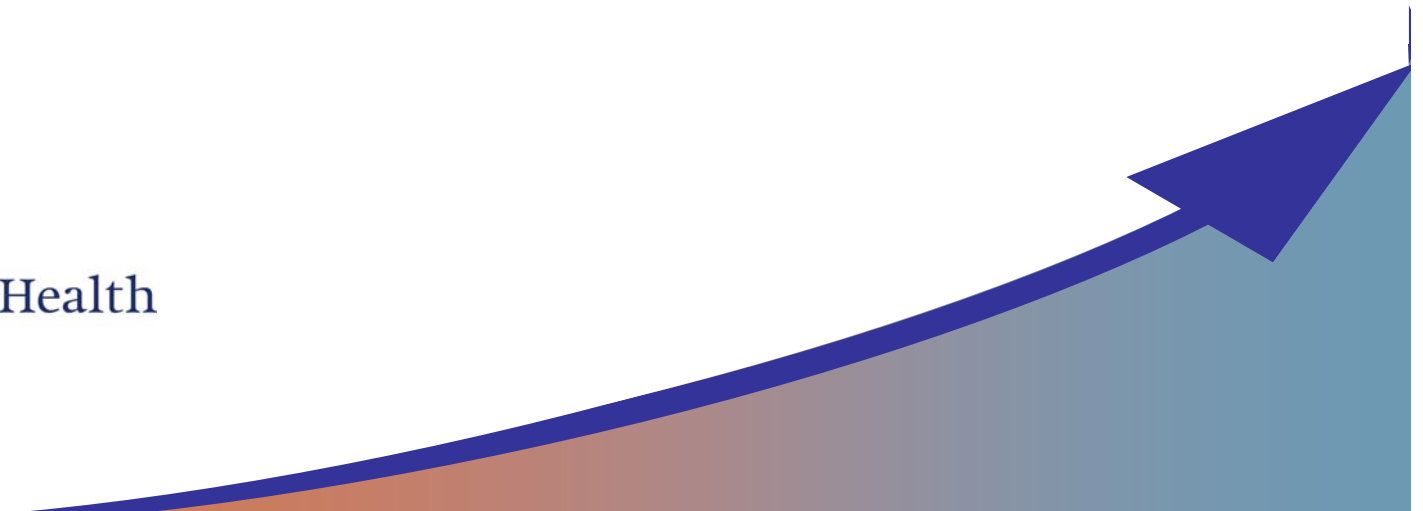
MedStar Ambulatory Care EHR

Dawn Richmond

IS Ambulatory EHR Manager



MedStar Health



TOPICS

- MedStar Overview
- Ambulatory EHR Implementation
 - Mission/Goals
 - Strategy
 - Scope
 - Governance / organizational structure
 - Timeline/Status
- Challenges & opportunities



Good Samaritan Hospital



Washington Hospital Center



Harbor Hospital



Franklin Square Hospital

MedStar Health

- Eight hospitals and other healthcare services in the Baltimore/ Washington region.
- \$3.5 billion non-profit
- 25,000 employees and 5,000 affiliated physicians
- 3,100 beds
- 158,000 admissions
- 1.5 million outpatient visits



Montgomery General Hospital



National Rehab Hospital



Georgetown University Hospital



Union Memorial Hospital



MedStar Health

Ambulatory EHR Project Mission/Goals

PROJECT MISSION:

MedStar has committed to deploying an electronic health record (EHR), beginning July 2007 and completing in June 2010, in its owned ambulatory practices, clinics and faculty practices to improve quality, safety and effectiveness; all necessary elements in continuing its core commitment of “being the trusted leader in caring for people and advancing health.”

Key Project Goals:

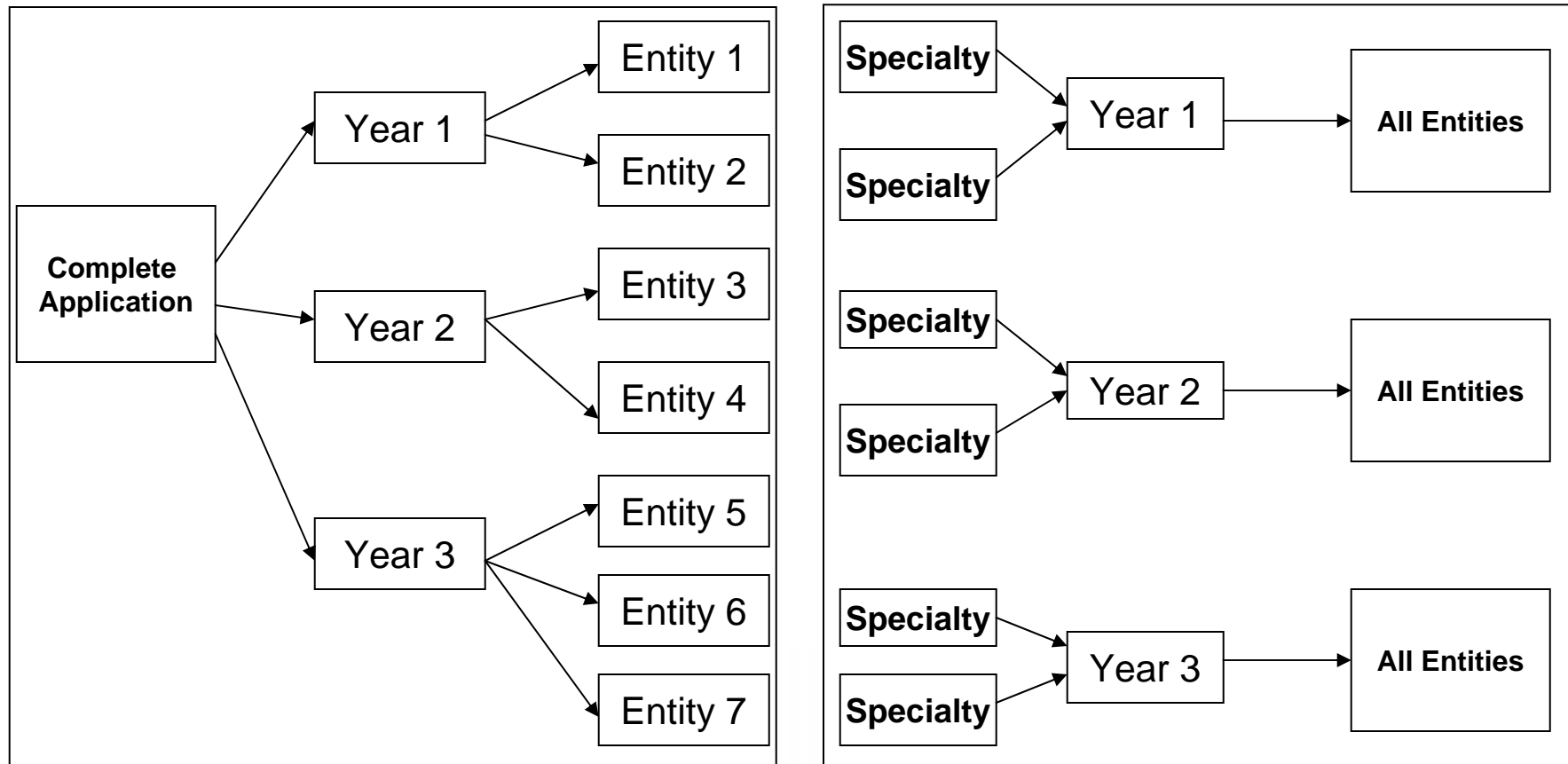
One Patient One Chart

Achieve clinical integration across departments and across facilities

Support the MedStar Health vision and quality agenda

Support MedStar's teaching and research missions

New Implementation Approach to Foster Clinical Integration



Scope of Implementation

EHR Functionality:

- Clinical documentation
 - All visits, procedures, phone calls, secure email
- Advanced - embedded point-of-care decision support
 - Acute / chronic care management
 - Preventive services
 - Quality / P4P program support
- Population management tools
 - Chronic disease management
 - Preventive services
 - Abnormal results monitoring
- Physician inbox for new labs/documents
 - Labs interfaced into EMR
 - Document imaging system (for non-structured information)
- EHR generated / coded “superbill”
- Display of outpatient schedule
- Intra-office and inter-office messaging
- Connectivity with patient portal
- E-prescribing

Scope of Implementation

Hardware Infrastructure:

- **GE Centricity EHR**
 - Oracle on AIX, high availability
 - Complete Test Environment in AIX, VMWare
 - Application Delivery via Citrix PS 4
 - migrate to Citrix PS 4.5 early in the project
 - implement new tools to monitor performance
 - Test (& implement if effective) Citrix on VMWare
- **Kryptiq**
 - SQL Server, Active-Passive Cluster
 - Multi-tiered Wintel based application for Patient Portal
 - Will utilize new Enterprise ISA Server Cluster
 - Secure Messaging product
 - Disease and Patient Population Management S/W

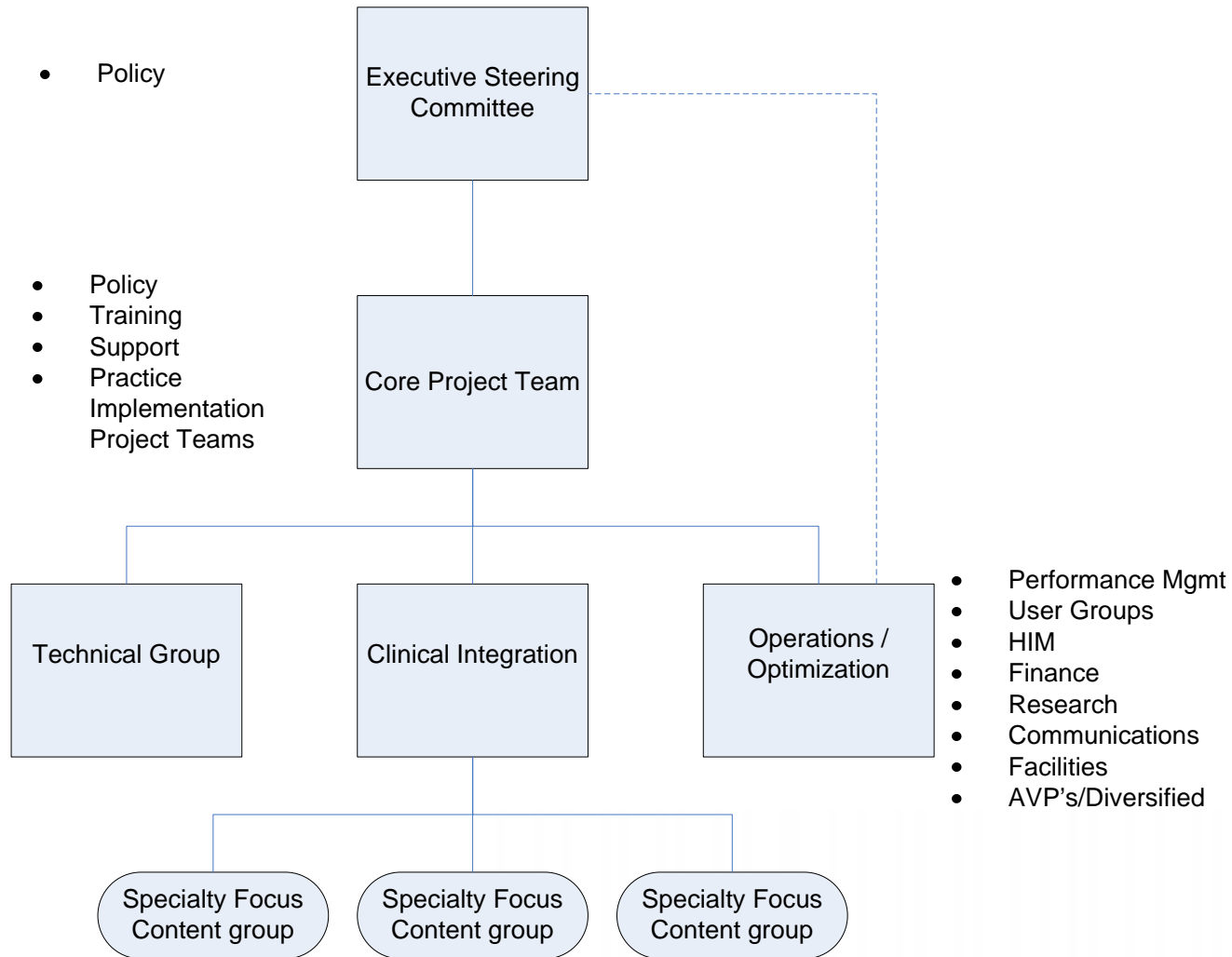
Scope of Implementation

Connectivity & Interfaces:

- WHC/MPP Database Merge
- Lab results interfaces
 - LabCorp
 - Quest
 - Hospital lab
- Hospital Rad Text Reports
- Key Outside Service Provider Interfaces
- Practice management interfaces (IDX, Siemens or Medical Manager)
 - Demographics
 - Scheduling
 - Billing / Full order entry
- Voice recognition for dictation, voice commands and shortcuts
- Transcription interface (limited) with integration capability
- Integrated faxing solution
- Integrated scanning solution
- Integrated ePrescribing (in Q1 2008)
- Secure remote access (for home / travel)
- Use of Azyxxi as repository of summary / selected data*



Governance Structure



FY 08 Ambulatory EHR Prerequisites to Initiating Implementations

- July-November 07: Merged Washington Hospital Center and MPP Centricity EHR Databases
- January 08: Upgraded/Migrated database server to UNIX
- February 08: Upgraded Centricity EHR application to current release.
- Reconfigured Centricity to support one patient, one chart model. Initiated merge chart project (9000+ charts merged)

FY 08 Ambulatory EHR Implementations

FY 08 Specialties

- Primary Care
- Cardiology
- Gastroenterology
- Anti-coagulation
- Geriatrics
- Urology
- Rheumatology
- Endocrinology
- Student Health
- Dermatology
- Nephrology
- Internal Medicine
- Nutrition/Diabetes
- Adult Medicine
- Congestive Heart Failure
- Healthcare for the Homeless

<u>Entity</u>	<u># of Practices</u>	<u>Physicians Residents Fellows</u>	<u>Support Staff</u>	<u>Total</u>
GUH	12	197	128	325
WHC	5	17	30	47
UMH	8	106	50.5	156.5
GSH	6	72	27	99
FSH	6	45	45	90
HH	1	1	10	11
TOTAL	39	438	291	729

FY 09 Ambulatory EHR Implementations

FY 09 Specialties

- Peds
- Peds Subspec.
- Pulmonary
- Neurology
- Otolaryngology
- Audiology
- General Surgery
- Thoracic Surgery
- Plastic Surgery
- Wound/Healing
- Orthopedics
- Oral Surgery
- Orthodontics
- Trauma
- Podiatry
- Pain Management
- Bariatric
- Colon/Rectal
- Family Planning
- Antepartem
- Primary Care
- Diabetes/Endo

<u>Entity</u>	<u># of Practices</u>	<u>Physicians Residents Fellows</u>	<u>Support Staff</u>	<u>Total</u>
GUH	31	180	136	316
WHC	21	221	68	289
HH	5	52	18	70
TOTAL	57	453	222	675

FY 10 Ambulatory EHR Implementations

FY 10 Specialties

- General Surgery
- Thoracic Surgery
- Breast Surgery
- Neurosurgery
- Vascular Surgery
- Vascular Lab
- Transplant Surgery
- Pain Management
- Psychiatry
- GYN
- UROGYN
- Wound
- Burn Center
- Infusion
- Cardiac Rehab
- Interventional Radiology
- Coumadin
- Community Health
- Case Management

<u>Entity</u>	<u># of Practices</u>	<u>Est. Physicians Residents Fellows</u>	<u>Est. # of Concurrent users</u>
GUH	23	147	183
WHC	6	111	38
UMH	6	39	20
GSH	6	20	20
FSH	13	77	128
HH	6	38	67
TOTAL	60	432	456

FY 11 Ambulatory EHR Implementations 48+ Sites

Facilities

- GUH
- WHC
- MRI
- NRH
- UMH
- GSH
- FSH
- HHC
- Nascott
- VNA
- Helix Family Choice

Specialties

- Orthopedics
- Spine Center
- Sports Medicine
- Ophthalmology
- General Surgery
- Surgical Specialties
- Pulmonary Function
- EEG
- Sleep Lab/Sleep Clinic
- NRH-Physical Rehab
- VNA
- Helix Family Choice
- Nascott
- MRI Diabetes



Key Challenges & Opportunities

1. Transition from multiple charts to “One patient-One Chart”
2. Transition from traditional transcription services to voice recognition
3. Achieving/maintaining clinical integration
4. Optimizing clinical workflow



Questions?