

NORTHBAY HEALTHCARE

Annual CIO Forum

HIMSS – Northern California Chapter

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NorthBay Healthcare



- **Mission Statement: Compassionate Care, Advance Medicine, Close to Home**
- We are a Smaller Independent Community Based Healthcare System
- Located Directly off I-80 Mid Point between Sacramento & San Francisco
- Primary Market Population of 250,000 – Vacaville, Fairfield, Suisun City, and some Vallejo
- Surrounded by Sea of Very Large Healthcare Systems (Kaiser, Sutter, CHW)

NorthBay Healthcare

- (2) Community General Acute Hospitals - Solano County, CA
- (2) Emergency Departments – only ED's between Davis & Vallejo
- (3) Physician Primary Care Practices – 10 Physician Group Per Center
- (4) Diagnostic Imaging Centers – Solano Diagnostic Imaging
- (1) Ambulatory Surgery Center (Joint Venture)
- (1) Home Health Operations
- Hospice Center
- Various Outpatient Centers – Cancer, Pain, Rehab, Etc.
- 220 Community Physicians
- 25 Hospitalist Physicians

NorthBay Healthcare

- Net Revenues: \$270 mil
- Inpatient Admits: 8,600
- ED Visits: 60,000
- Clinic Visits: 86,100
- FTE's 1,400
- Payer Mix:

Medicare	43%
Medicaid	34%
Comm/MC	19%
Self-Pay/Othr	4%
- IT Budget: \$9.0 mil 3.3% of Net Rev
- IT FTE's 32

IT – Prior to Year 2000

- “A lot of Breed” not necessarily “Best of Breed”
- IT Decision Making primarily Recommended by User Departments
- Silo’s of Patient Information (Stand-Alone Systems)
- Very Little Patient Care Systems (Order Entry Lab/Rad)
- No Clinical Data Repository
- Smaller IT Staff - Primarily Focused on System Maintenance
- Very Informal IT Governance Structure
- IT Capital Budgets – Very Small % of Total Capital Budgets

FY2000 – Year of IT Awareness

- CEO Wanted Organization to Gain Competitive Advantage Through IT
- CEO Championed Organization to Pursue IT as Strategic Initiative
- Consultant hired to developed formal IT Long Range Plan
- Created new position – 1st CIO (previous IS Mgr/Director)
- Temporary CIO – Until Permanent Recruited (Reports to CEO)
- Created Initial IT Governance Structure
- Initiated System Selection Process – 8 Vendors Reviewed
- IT re-organization and staffing allocations for Systems Implementations

Key IT Principals

- Strategic Vision – Implementation of Electronic Patient Medical Record for Enterprise
- Enterprise-Wide Single EMR: Inpatient, Outpatient, Physicians Ambulatory
- Must be a Clinician Led Initiative to achieve Cultural Change
- Comprehensive, Integrated, Clinical Information System (**Single Vendor**)
- Standardized Applications with Standardized Policies/Practices – Enterprise-Wide
- Concurrent Implementations for Two Hospitals
- User Driven – IT Governance Structures
- Strong Executive Sponsorship for IT Systems in Key Areas
- Strong Involvement & Communications from Physician Community
- IT Must Be Included within the Organization's Strategic Planning Process

TEMR PROJECT

Transformation To Electronic Medical Record

- The TEMR Project will be automating **our Core Business Functions**
- Will Significantly **Change Services Delivery Process** – All Clinicians
- TEMR is a Long Term **Clinical Quality & Patient Safety Improvement Initiative**
- IT Technology is a **Enabling Tool** to facilitate **Process Change** and is critical to implement Change
- TEMR is more about **Workflow and Process Change** than IT System Implementation
- IT Systems will allow for the implementation **Clinical Evidence Based Clinical Protocols and Best Practice Processes**

What's Been Accomplished?

Phase I

- Enterprise Master Patient Index (EMPI)
- Enterprise Scheduling (PM)
- Enterprise Outpatient & Inpatient Registration (PM)
- Enterprise Medical Records (Profile)
- Emergency Department – Phase I
- Pharmacy Mgmt (PharmNet)
- Laboratory Mgmt (PathNet)
 - General Lab
 - Micro Lab
 - Blood Bank
 - AP

What's Been Accomplished?

Phase I

- Radiology Mgmt (RadNet)
- Surgery Mgmt (SugiNet)
- Nursing Order Entry/Result Report (PC-Orders)
- Nurse Documentation – 4 Key Documents (PowerForms, Etc)
- Physician Medical Transcriptions Interfaced to EMR (MedQuest)
- Electronic Physician Signature for Medical Transcriptions (E-Signature)
- Remote Physician Access (Internet)
- Midas (UR) with Interface from Cerner

What's Been Accomplished?

Phase II

- **Balance of ED Applications (Both ED's Now 96% Electronic):**
 - ED Facility Acuity Coding System
 - ED Physician On-line Patient Documentation
 - ED Physician Coding System
 - Electronic Medications Prescriptions to External Pharmacies (EZ – Script)
- **Physician Primary Care Centers (3) (85% Electronic):**
 - On-Line Physician Patient Documentation (PowerNote)
 - Electronic Medication Prescriptions to External Pharmacies (EZ-Script)
 - Interface to External Reference Lab for Orders & Results
 - CPC Access to Inpatient Encounters
 - Physician Problem Lists
 - Patient Document Imaging for External Patient Clinical Data

CURRENT INITIATIVES

FY '2007:

- Automation of balance of 75 Nursing Forms (Cerner)
- Point of Care (POC) wireless Mobile Devices – Tablets & Lap Tops
- E-MAR – Electronic Medication Administrative Records (Cerner)
- Patient Monitors Interfaces to Cerner (BMDI's) with Patient Flowsheets in ICU and ED
- Implementation of New Patient Billing/AR System (Keane)
- Significant Upgrade of Internal Network to Support PACS, VOIP, & Additional Applications for Clinical and Financial Systems
- Implementation of Phillips PACS System for 2 Hospitals and 3 Imaging Centers within Vacaville and Fairfield

CURRENT INITIATIVES

FY '2007 Continued:

- Development of 300 Physician Clinical Order Sets based upon Zynx Evidence Based Protocols.
- Detail Analysis of Existing Physicians Inpatient Workflows and Identifications of Areas of Future State Workflow Changes to Support CPOE.

FY '2008:

- Physician On-Line Patient Documentation for Inpatients
- CPOE – Physician Ordering and Clinical Alerts/Warning and Protocols
- Bar Coding for Patient Identifications and Medication Administration
- Document Imaging for Balance of Medical Records

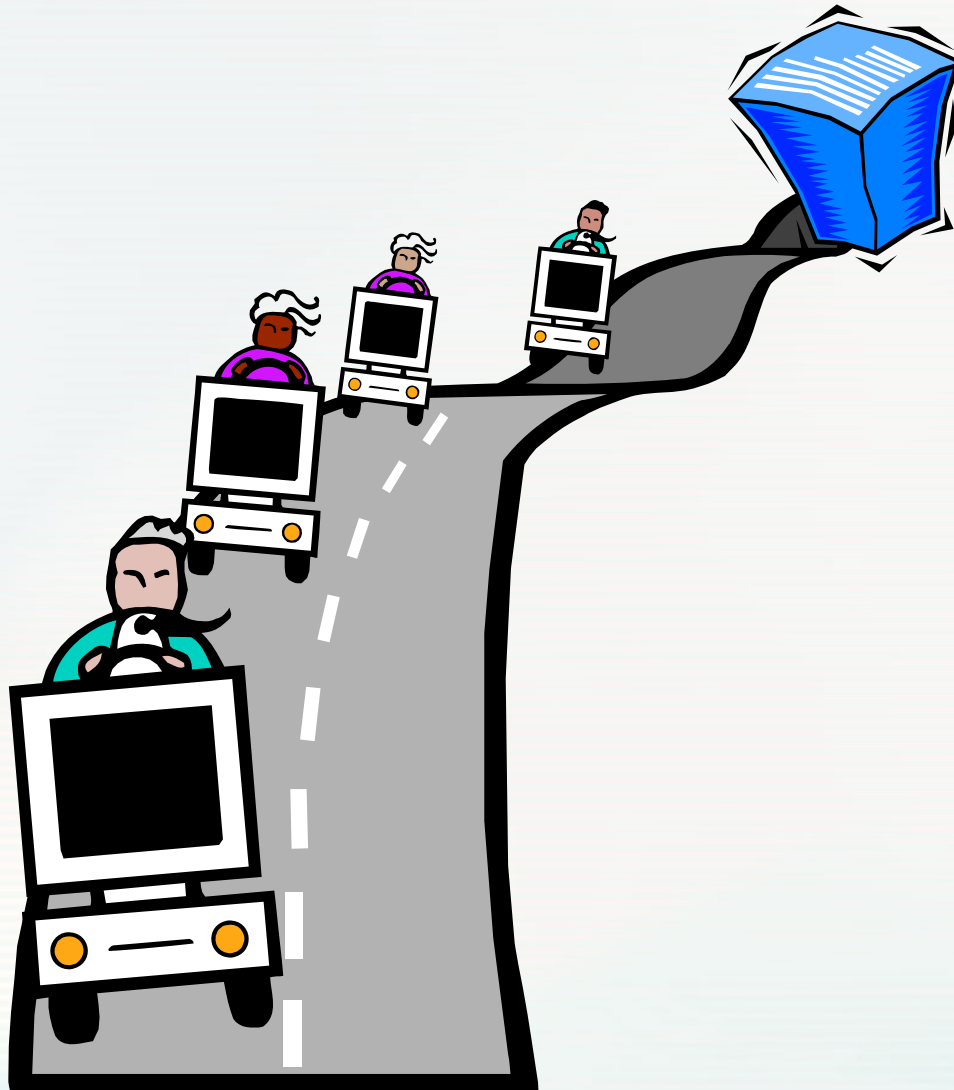
CURRENT INITIATIVES

FY '2008 Continued:

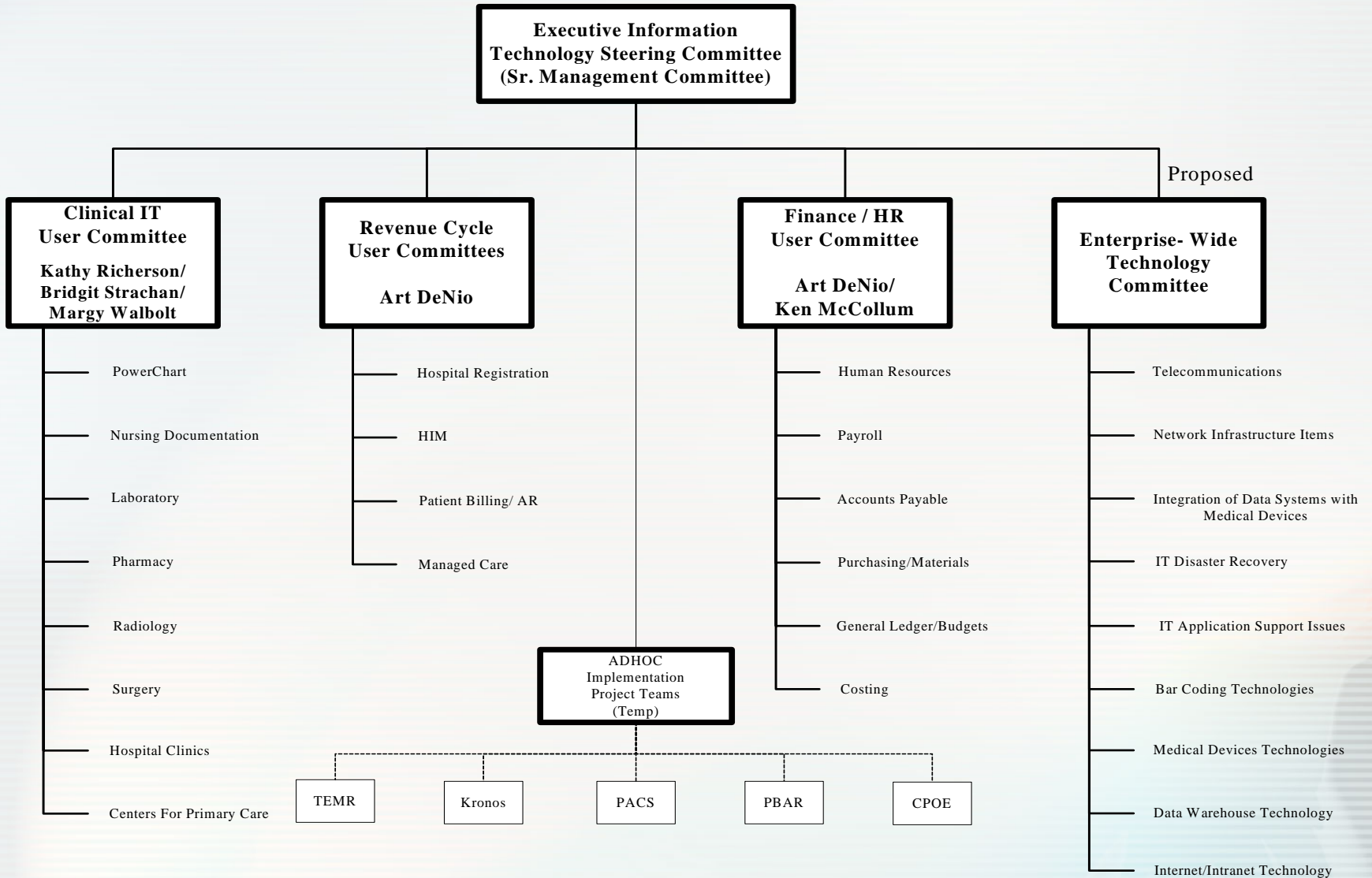
- Patient Data Warehouse for Clinical, Financial, and Admin (PowerInsight)
- Initiate Implementation of Telephone Switch Replacements with VOIP
- Relocation of Data Center to New Administrative Support Bldg.
- Development of Updated IT Five (5) Year Strategic Plan based upon NorthBay's Newly Developed Strategic Plan

Transformation

To Electronic Medical Record (EMR)



Proposed Information Technology System Maintenance Committee Structure



NATIONAL INITIATIVES

- **RHIO'S/HIE/Medical Records Banks - Trusts**
- **Physician Office Practices**
- **EMR's**
- **PHR's**
- **Pay-For-Performance**
- **State and/or National Healthcare Reform**

NATIONAL INITIATIVES

Influences on Our Internal IT Initiatives?

- **Our Primary Goal & Focus - Automating Our Enterprise**
- **At This Time Very Little**
- **Taking "A Watch and See Attitude"**
- **Automating Enterprise Will Position Us For the Future**
- **Participate When Needs of the Organization can be Best Serve Our Stated Mission**
- **Our Smaller Size Does Not Provide for Capital Contribution for High Risk Ventures.**
- **We Must Focus on Maintaining and Growing Our Market**