

University of Maryland
2012 Summer Institute of Nursing Informatics

Collaboration for Transformation
CNO and CNIO: Documentation by Design

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Today's Objectives

- Evidence how the Nursing **strategic plan** guides and **empowers** informatics for Vanderbilt Nursing
- Discuss how a **Nursing terminology** framework effects transformation across the care continuum
- Demonstrate the value of engaging clinicians in the **prioritization** of clinical information systems improvement efforts

Vanderbilt University Medical Center

One of the Nation's Largest, Fully Integrated University Health Systems

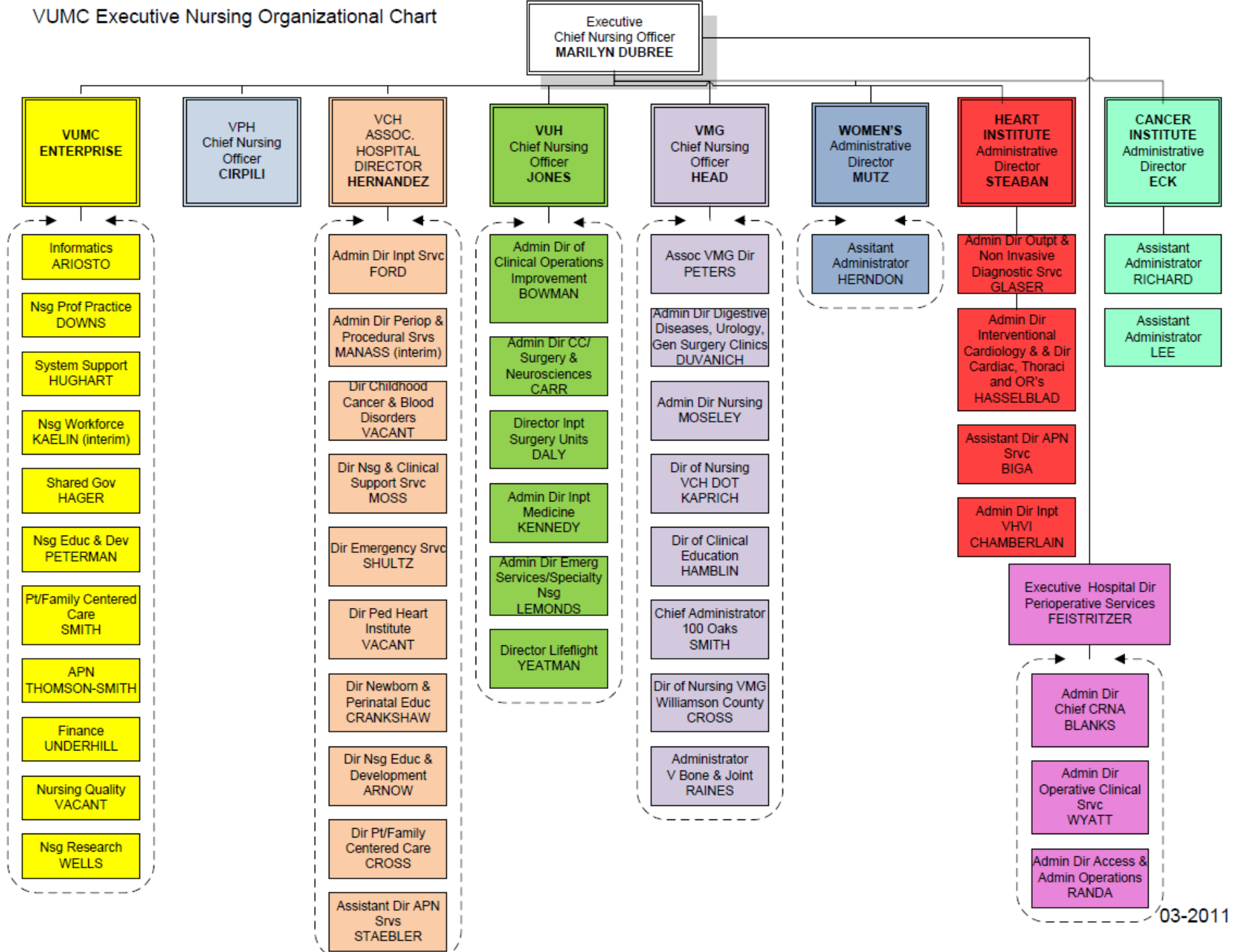
- Level I Trauma & Burn Centers
- Level III Neonatal Intensive Care Unit
- Largest Transplant Center in Southeast
- National Comprehensive Cancer Center
- Adult Pediatric Heart Surgery and Neurosurgery Centers of Excellence
- **FY2012 Volumes:**
 - 50,000 inpatient discharges
 - 2 M ambulatory visits
 - 45,000 surgical operations
 - 3000 faculty (MDs, PhDs) – all medical disciplines & subspecialties
- **19,000 faculty and staff - largest private employer of Tennessee's citizens**



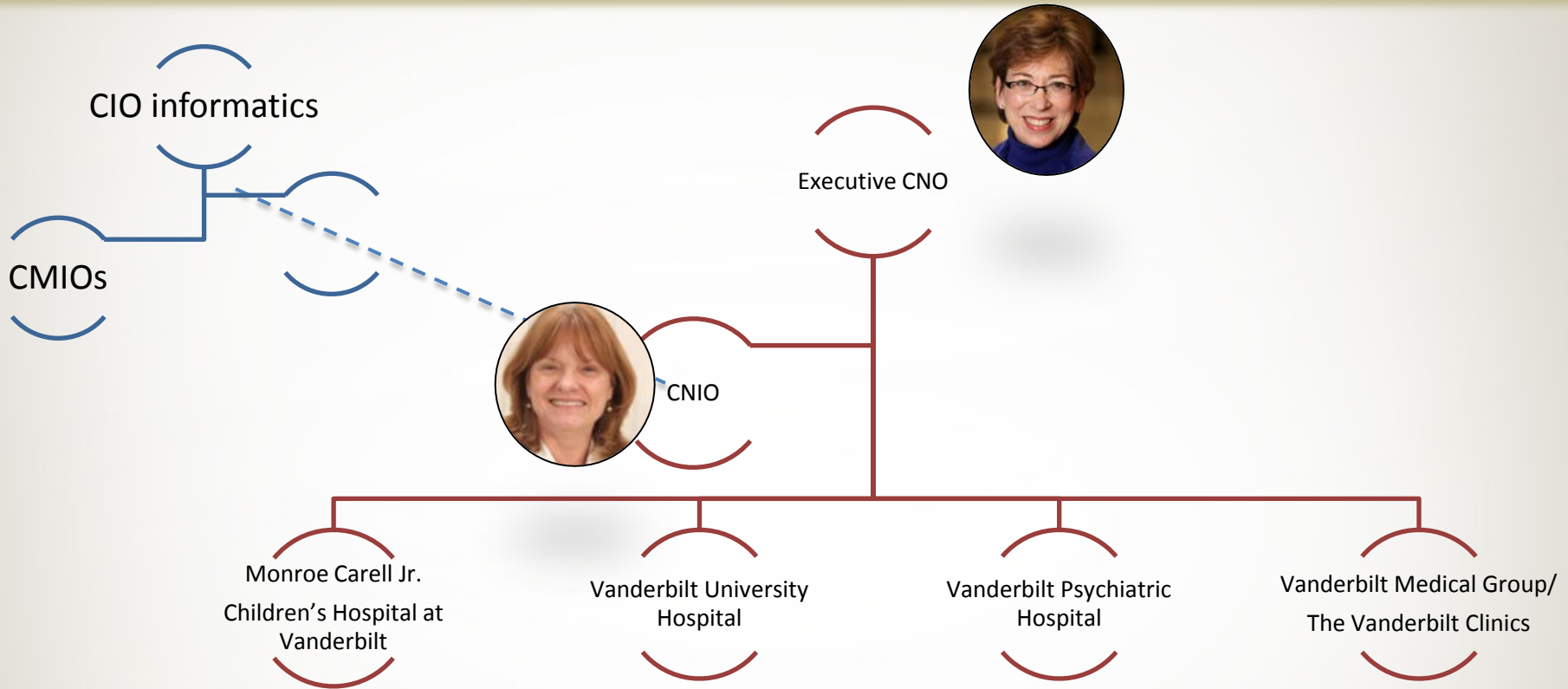
- 4 Hospitals (1,000 beds) – Children's, Adult, Psychiatric, Rehabilitation
- The Vanderbilt Clinic
- One Hundred Oaks
- Williamson County Clinics & Surgery Centers
- 2012 ANCC Magnet 2nd Designation



VUMC Executive Nursing Organizational Chart



Nursing Organizational Structure



Vanderbilt Nursing Strategic Plan

The strategic plan is comprised of 3 components:

- **Personalized Patient Health Care** Model
- **Evidence Based Practice** and Effective Processes
- Transformational **Leadership** and Professional Development

Fundamental pieces of the work occur within the **infrastructure** and committees support what will be accomplished with the strategic plan.

Personalized Patient Care

- Transform the way in which health care is delivered across the continuum in order to ensure highly reliable personalized care, taking advantage of the capabilities and unique contributions of the entire care delivery team.



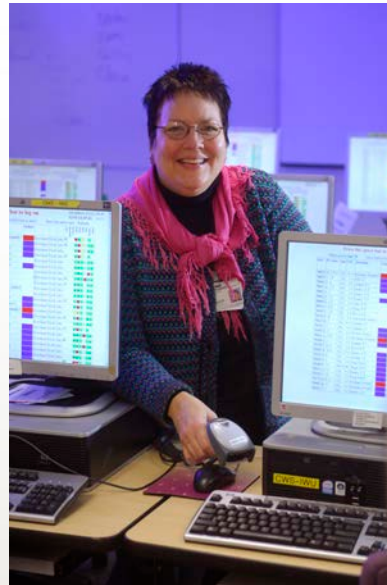
EBP and Effective Processes

- Lead the nation in producing evidence that will drive nursing practice, recognizing and legitimizing the evolution of knowledge in a rapidly changing environment. Create passion and discipline for the translation of evidence into practice that will optimize patient outcomes.



Transformational Leadership

- Create a leadership model that will provide current and future leaders the environments, tools, evidence and skill development to be innovative and transformational during a time of health care reform and transition.



2009 Design Shop

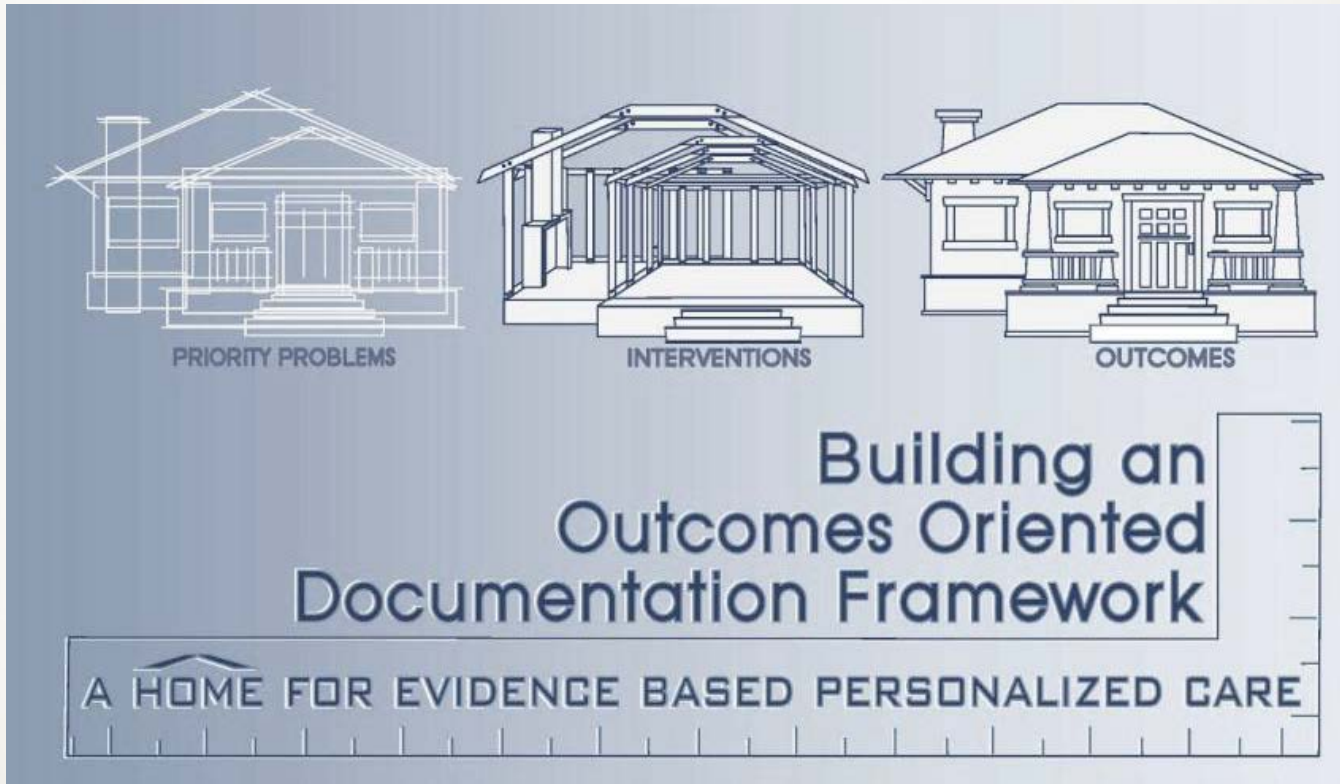


- Clinicians identified opportunities to **improve** the work and value of nursing **documentation**
- Recommendations made to better visualize the “**patient story**” and to highlight the “**thinking work**” of nurses

How to begin?



Develop a Nursing Informatics Logo!



Develop Guiding Principles

- **Standardize & Simplify**
 - Multidisciplinary concepts
 - Cross continuum interoperability
 - Reduce low value, redundant data collection
- **Elevate & Integrate**
 - Emphasize professional practice
 - Visualize professional nursing care to the team along the healthcare continuum

Standardize & Simplify

- **Clinical Care Classification™**
 - 21 Care Components
 - 176 Nursing Diagnoses
 - Virginia K. Saba et al.
- **SNOMed Clinical Terms™** mapping
 - Future multidisciplinary sharing
- **Horizon Expert Documentation™**
 - McKesson Corporation, Inc
- **VUMC StarPanel™**
 - EMR Dashboard views

Activity		▼
Cardiac		▼
Coping	Family coping	▼
Fluid Volume	Fluid excess	▼
GI		▼
Health Behavior		▼
Life Cycle		▼
Medication	Polypharmacy	▼
Metabolic		▼
NeuroCognitive		▼
Nutrition		▼
Pain/Comfort		▼
Phys Regulation		▼
Pulmonary		▼
Renal/UR		▼
Self-Concept		▼
Self-Care		▼
Safety	Injury Risk	▼
Sensory		▼
Skin Integrity		▼
Tissue Perfusion		▼

Elevate Nursing Documentation

- De-emphasize task based charting
- Emphasize problem identification and resolution
- Organize data according to Nursing Process:
 - Assessment
 - Diagnosis
 - Expected Outcomes
 - Intervention Planning
 - Implementation
 - Evaluation



Integrate into the Team Summary

Plan by Systems [Burn] 2012/04/30 11:34

- Neuro: -pain control with PRN oxycodone, dilaudid, ketamine/versed for hydro
- FEN/GI: -stable on RA
-TFs with pediasure, pediatric d
-tincture of opium for loose stool
- Renal: monitor UOP
- Infectious Disease: -fever, leukocytosis. CXR and U negative. -Consulted pediatrics for fever workup. Will place central line during hydro
- Skin/Wound: Burn pack takedown in hydro today.
- Cardiac:
- Heme:
- Endocrine:
- Immunology:
- Musculoskeletal:
- Psychosocial:
- Other1
- Other2
- Other3

Provider

- Synopsis
- Problems
- Plan by Systems

Nursing

- Shift Summary
- Plan
- Problem & Shift Goals

Plan of Care (from OPC)

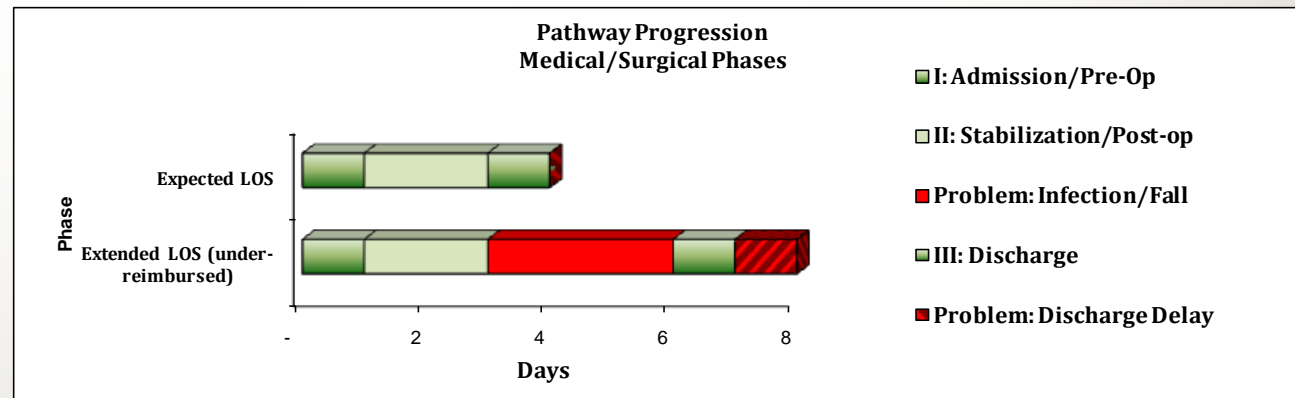
Pathway Name (04/30 08:00): burn post-op non-icu; **Phase** (04/30 08:00): phase 2; **Nursing Summary** (04/30 04:44): tmax 101.8, responded to tylenol, labs sent, cxr, ua sent, no bm this shift, no emesis this shift, npo @mn for ketamine. prn pain med x1, picc flushing w/resistance, sluggish blood return white port only, no blood return red lumen. MD aware.; **Plan Priorities** (04/30 04:44): burn pack take down today, hydro for wound care, encourage po intake, encourage age appropriate play.

Priority Problems	Short Term Goal
(04/21/12 19:50) Acute Pain may be related to burn	(04/30/12 08:00) Pt will show s/s of pain < 5/10 throughout shift
(04/21/12 19:51) Airway Clearance may be related to facial burns	(04/27/12 07:42) pt will maintain sats >93 on room air
(04/23/12 01:08) NutrDeficitRisk may be related to hypermetabolic state r/t burn/poor po intake	(04/29/12 20:00) will tolerate tube feeds until mn this shift
(04/23/12 19:39) CV Alteration may be related to pain	(04/30/12 08:00) Pt will maintain hr < 140 at rest
(04/25/12 09:37) Diarrhea may be related to tube feeding	(04/30/12 08:00) Pt will have no diarrhea on this shift
(04/25/12 09:40) Fall Risk may be related to burn injuries	(04/30/12 08:00) Pt will remain free of falls throughout shift
(04/29/12 08:31) Nausea	(04/30/12 08:00) Pt will have no nausea or vomiting on this shift

Individualize the Problem List

Nurses prioritize and set shift goals based on:

- Patient concerns: *Pain, Anxiety...*
- Nurse diagnoses: *Skin integrity, Fall Risk, Coping...*
- Team plan of care progression risks:
Immobility, Nutrition, Impaired gas exchange...



Visualize the Patient Story

Situation

- Diagnoses * Operative information * Code Status * Adv Directives * Precautions * Providers * Contacts * Language

Background

- Past Medical Surgical History

Assessment

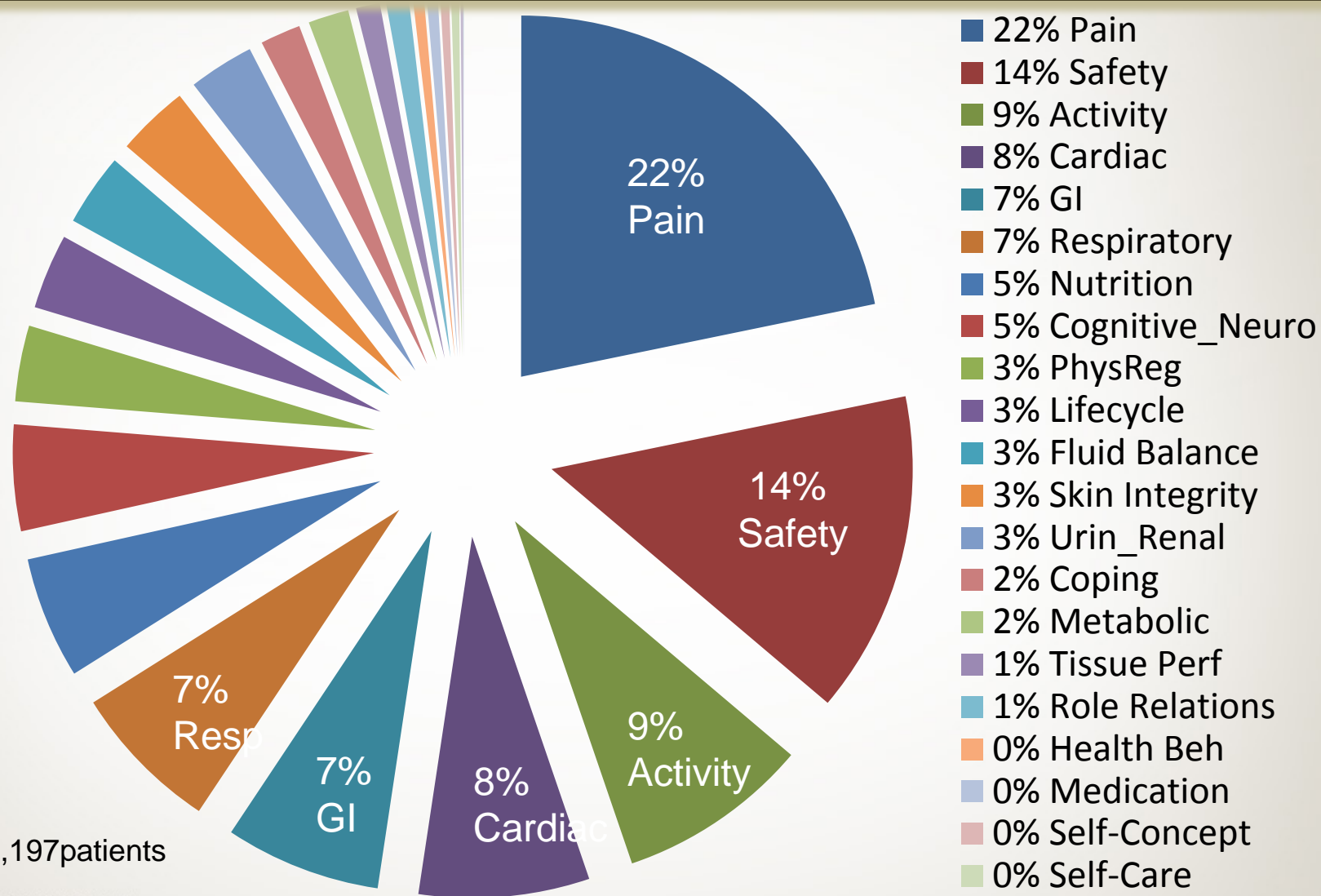
- Team Summary * **Nursing Problem list & goals** * Vital Signs * Key metrics
- [Consult Notes](#) * [Anesthesia](#) * [Studies](#) * [Labs](#)

Recommendations

- Orders



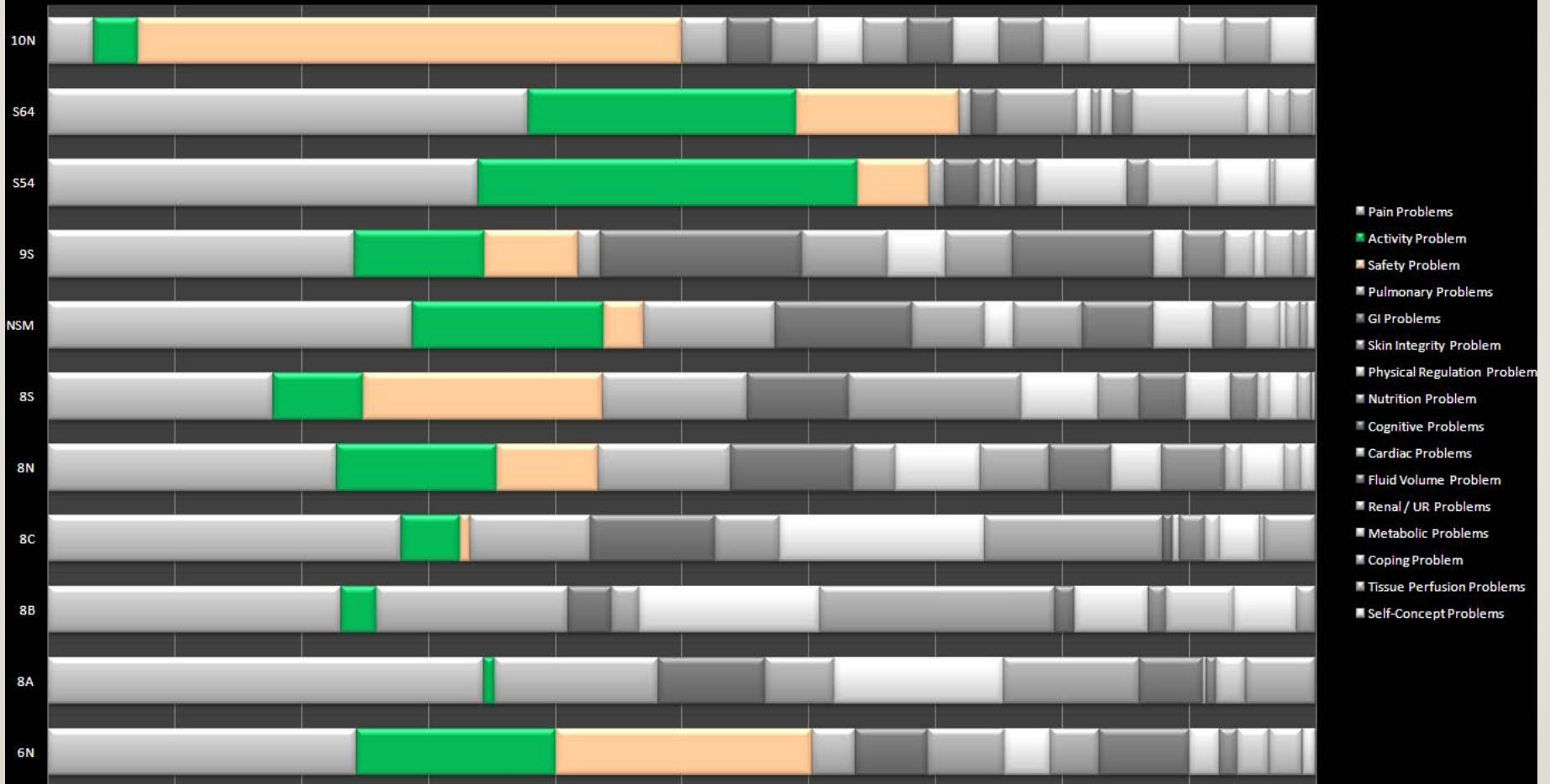
Visualize Nursing Practice Globally



Fall 2011 n= 71,197patients

Visualize Nursing Practice Locally

Priority Problems: **Activity** & **Safety** - by Unit



Real-Time Snapshot of Unit Care

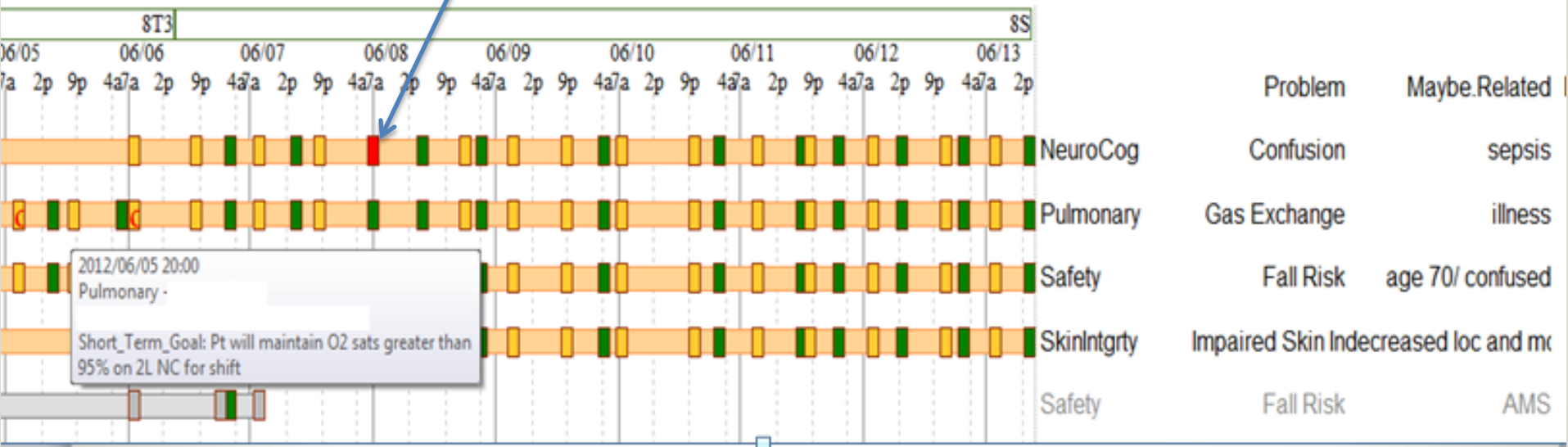
Age	LOS	Serv.	Bed	OPC	Pthwy	Plan	Reg	Physiological						UR	NPsy		Functional					Behav			Life
								Pal	Car	Perf	Skin	Met	GI		NCog	Psys	Fluid	Nut	Pain	Act	Self	HBhw	Med	Safe	
3y	8 d	BRN	11210A	OPC	PCC	6		P	C			G						D	P					S	
4y	6 d	PLS	11205	OPC	Gen	6			C					P			D	P						S	
3y	8 d	BRN	11220	OPC	Gen	3						G	U				D	P						S	
28y	11:49	BRN	11230	OPC	Bur	9																		S	
4y	11:37	BRN	11216	OPC	Bur	8													P	A				S	
26y	42 d	BRN	11224	OPC	Bur	6		P	C	T	S	M	G	U	N		F	D	P	A				S	
63y	127 d	BRN	11204	OPC	Bur	6		P	C		S	M		U	N		F	D	P	A				S	
25y	11 d	BRN	11212	OPC	Bur	6		P	C		S	M		U	N		F		P	A				S	
50y	3 d	BRN	11212	OPC	Bur	6		P	C		S	M		U	N		F			A			M	S	

E-docs Pathway: Burn Rehab Pathway (2012-04-02 10:52)

Lifetime Care Continuum



Goal_Status: not met



A Activity

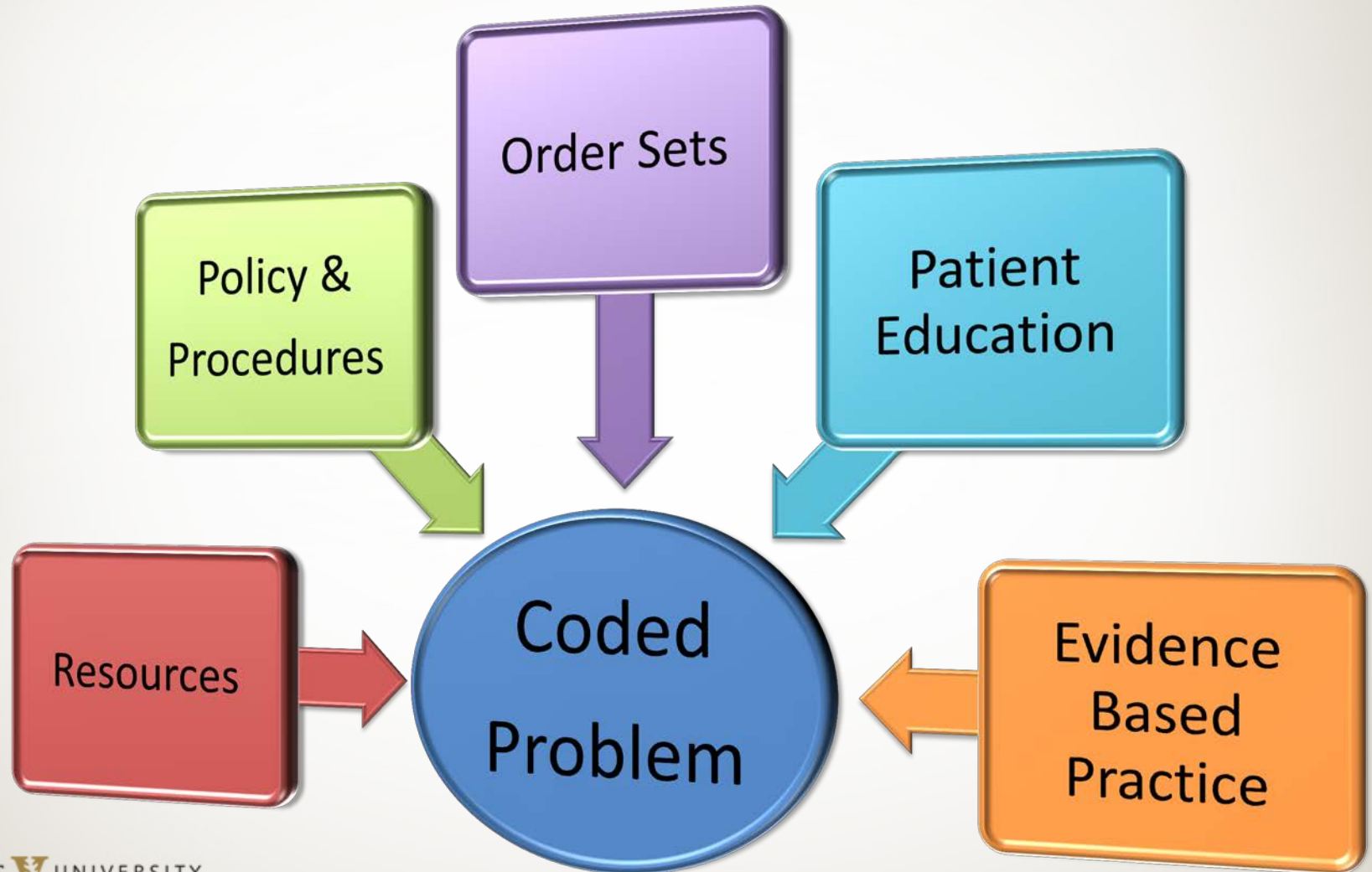
A01.4 Fatigue

Definition: Exhaustion that interferes with physical and mental activities



Link

Coded Problems with Coded Knowledge



Patient Engagement & Education Record

Goals	A. Education	B. Knowledge	C. Skill	D. Behavior
Topic	Participates in learning activities	Demonstrates understanding	Demonstrates skills/abilities	Shows initiative in self-care
HF	Things the patient must watch, read or discuss with the caregiver	How patients show they really understand Dx and therapeutic plan, and can report important symptoms	Skills patient should have to promote self-care	Behaviors that demonstrate self-care at home
Disease	chart ■	chart ■	chart ■	chart ■
Risk Factors	chart ■	chart ■	chart	chart
Fluid Balance	chart ■	chart		
Medications	chart ■	chart		
Nutrition	chart ■	chart ■		
Activity	chart ■	chart		
Tests	chart	chart		

X HeartFailure:Education:Disease History

Goal met:

Interventions:

- Video: Getting started with Tx
- Handbook: Heart failure
- Sheet: Discharge instructions
- Sheet: About your Heart
- Sheet: HF Top 10 Rules
- Sheet: Symptoms and causes of HF
- 1:1 discussion with RN

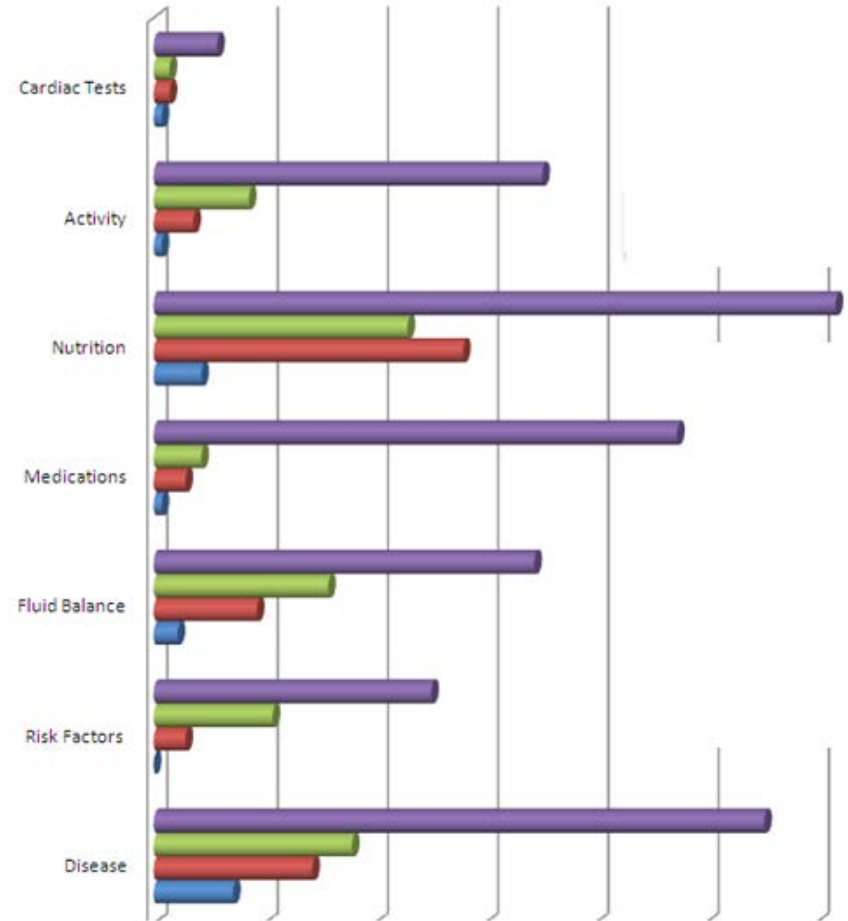
Comment:

- Green – Education Goal Met
- Yellow – Education Started

Heart Failure PEER Data

Multi-disciplinary documentation of

- Teaching
- Pt Understanding
- Pt Ability
- Pt Adherence



Transformational Leadership

Informatics provides information rich environments

- Evidence: **Analytics**
- Tools: **Dashboards**
- Supports innovation and transformation during a time of health care reform and transition

IOM - Future of Nursing

- Nurses should practice to the **full extent of their education** and training.
- Nurses should **achieve higher levels of education** and training through an improved education system that promotes seamless academic progression.
- Nurses should be **full partners**, with physicians and other health care professionals, in redesigning health care in the United States.
- **Effective workforce planning** and policy making require better data collection and information infrastructure

<http://www.iom.edu/Reports/2010/The-Future-of-Nursing-Leading-Change-Advancing-Health.aspx>

Questions ?