Nursing Informatics Led Optimization Program

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RANKED BEST IN THE WEST 1990-2015 NO. 5 IN THE NATION

HIMSS ANALYTICS STAGE 7 AWARD

HealthCare's most wired WINNER 2013 & 2014

MAGNET RECOGNIZED AMERICAN NURSES CREDENTIALING CENTER

4
hospitals

952
Inpatient beds

~60,000
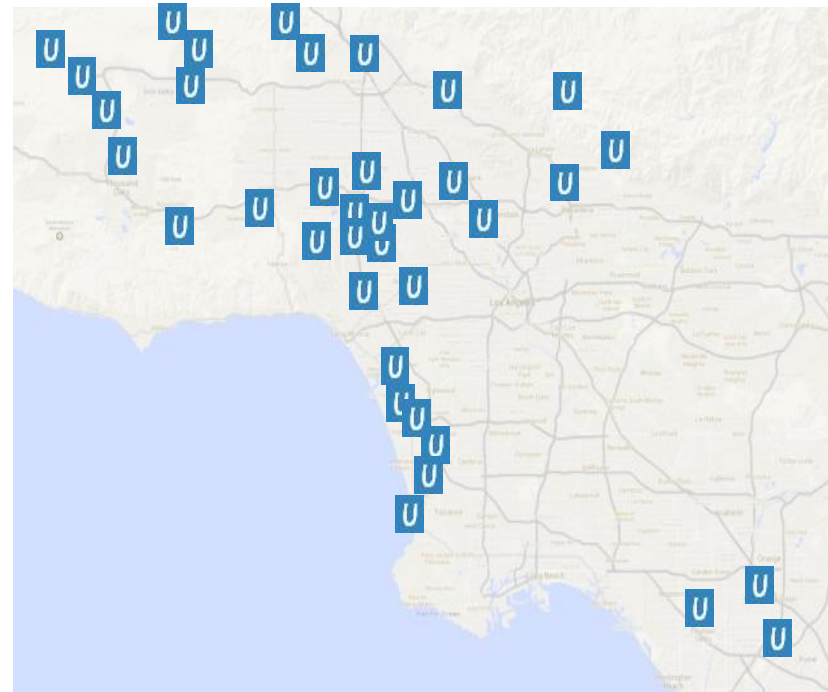hospital encounters

250+
outpatient practices

1.5 mil
outpatient annual visits

March 2013
Big-bang go-live;
full functionality
across health
system

September 2015
Laboratory,
Transplant go-live
scheduled

Stabilization
(6 months)

Optimization

18,000+ Us

Faculty	Clinical Volunteers	Nurses	/ Fellows	Therapists, Technicians, Clerical and Other Staff

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Optimization Goals & Objectives

- Develop governance structure to approve & prioritize optimization requests
- Ensure coordination & collaboration between IT & Department of Nursing
- Create process to effectively manage IT resources
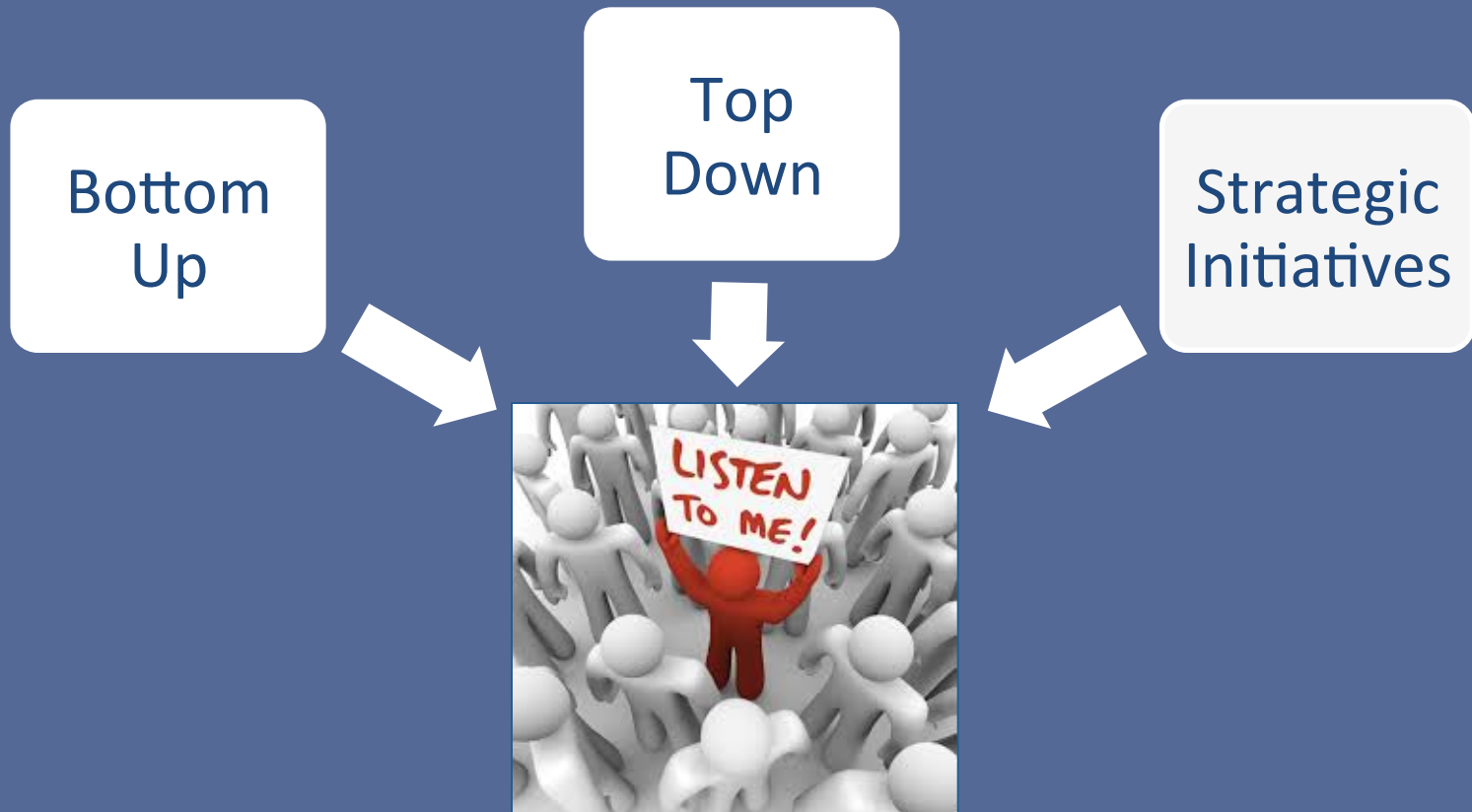- Improve engagement with front-line clinical nurses

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Our definition…

Optimization is the continuous improvement of processes that help to enhance patient care, improve outcomes and create efficiency

Basically, everything *except* break-fix!

REQUESTS COME FROM ALL DIRECTIONS

Bottom Up

Top Down

Strategic Initiatives

Bottom Up Workflow

- Is it worth pursuing? Is it possible?

- NI to create proposal & develop specs

- Present to governance group for approval & prioritization

- Submit to Application Team for build

- Coordinate communications & training
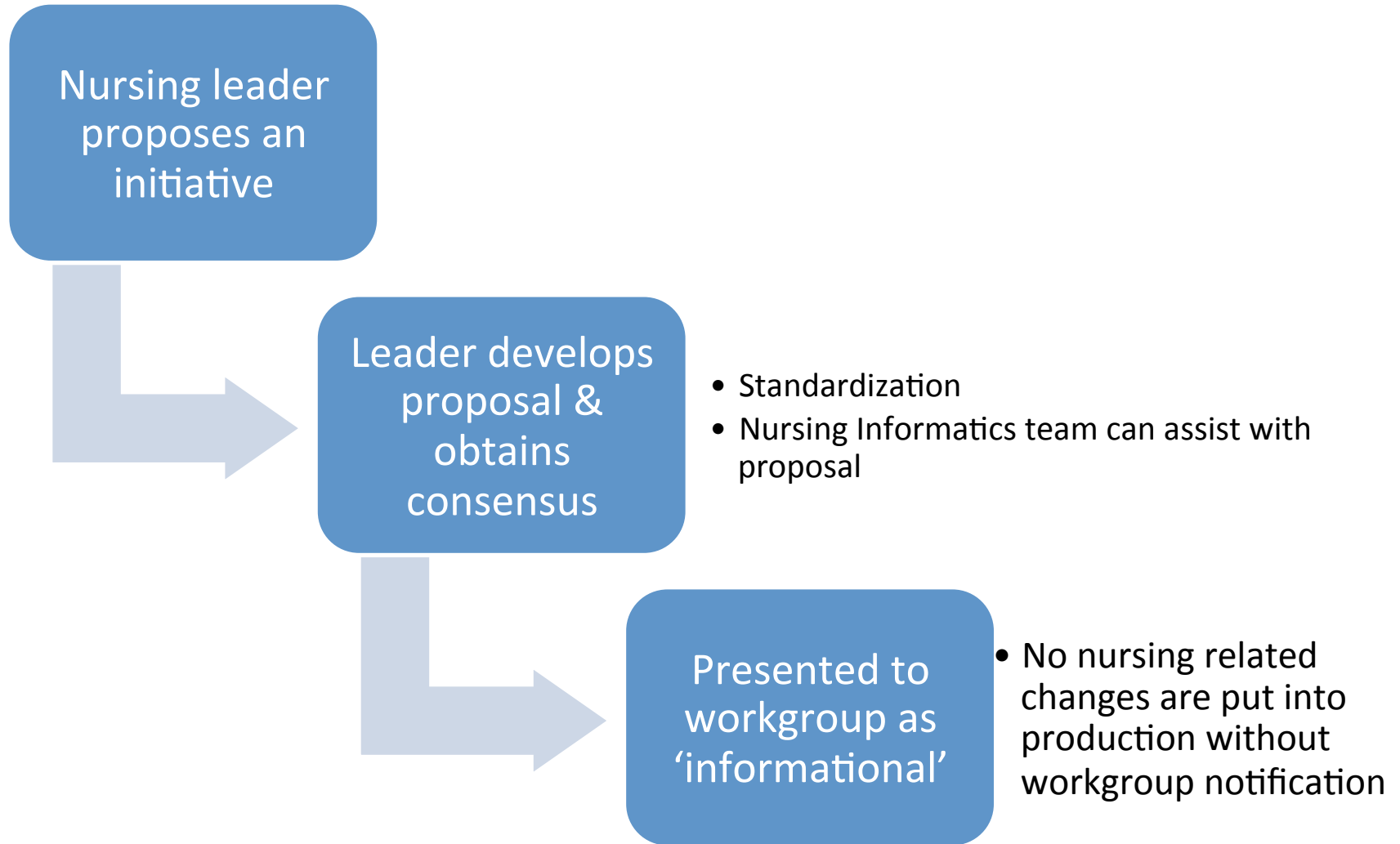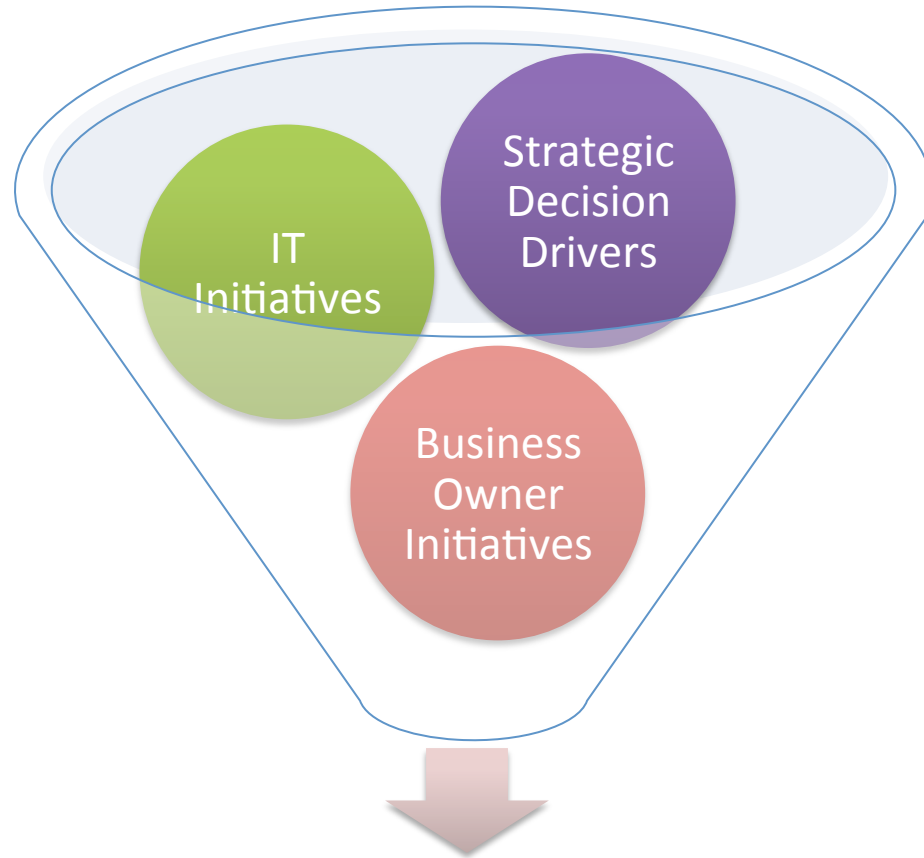
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Nursing leader proposes an initiative

Leader develops proposal & obtains consensus

- Standardization
- Nursing Informatics team can assist with proposal

Presented to workgroup as 'informational'

- No nursing related changes are put into production without workgroup notification

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IT Initiatives

Strategic Decision Drivers

Business Owner Initiatives

Strategic Initiatives Road Map

| Run/Grow/Transform | Business Categorization | Budgeting and Funds Flow |

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Management is doing things right; leadership is doing the right things.

Peter Drucker

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GOVERNANCE

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"When everything is a priority, then nothing is a priority"

Simon Fulleringer, IT professional

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- Decisions will be made based upon the **best interests of the patients.**

- We will focus on the best approach for the **overall UCLA organization,** while considering and balancing the needs of individual departments.

Executive Committee

Inpatient Advisory

Ambulatory Advisory

Revenue Cycle Advisory

Workgroups & Task Forces
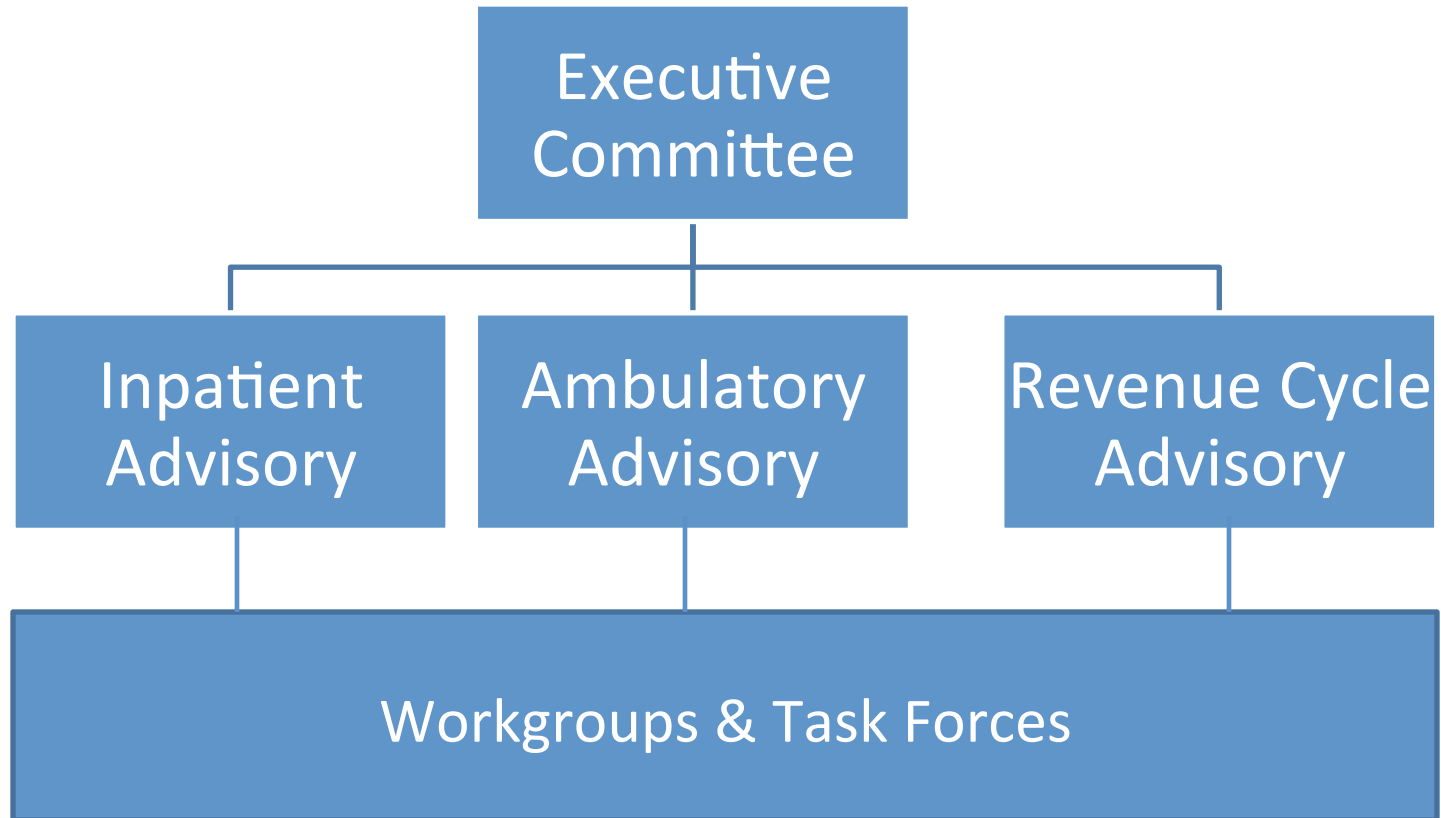
Workgroup	Advisory Group	Executive Group
'Local' impact 70%	Wide impact 20%	System Impact 10%

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- Nursing prioritization - M/S & ICU
- Mother - baby
- Emergency Department
- Perioperative
- Psychiatric Nursing
- Pediatrics
- Ambulatory
- Medication Administration
- Patient Education

> Most groups meet monthly
> ----
> Chaired by Nursing Informatics
> ----
> Striving for 50% Clinical Nurse participation

- Handover Reports
- Discharge Instructions
- Code blue documentation
- Admission assessment
- Laboratory order management
- Sepsis
- Blood administration

Task Forces are formed
around specific topics

Short term
(most 2-4 meetings)

Task forces make recommendations to applicable workgroups
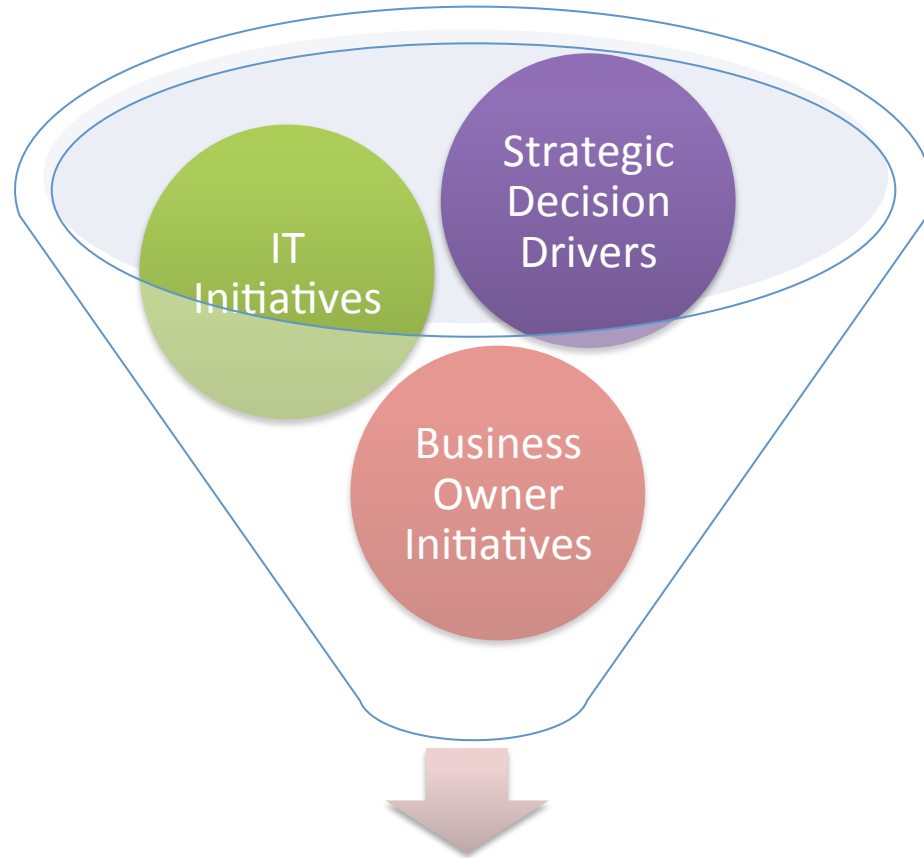
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IT Initiatives

Strategic Decision Drivers

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- Run (65% benchmark):
    - Cost of doing business/continuing operations
    - *Example: Infrastructure upgrades, software upgrades/patching*

- Grow (20% benchmark):
    - Enhancing products, services or experiences.
    - *Example: Software replacements, data center growth/expansion*

- Transform (15% benchmark):
    - New products, new business models, or new markets.
    - *Example: Mobile technologies, Epic Bedside, Innovations*

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Strategic Initiative Drivers

Aligns with Education Mission

Aligns with Research Mission

Aligns with Community Mission

Aligns with Clinical Care Mission

Improves Quality/Safety

Ensures Business Continuity

Improves Customer Experience

Regulatory/Compliance/Contractual

Increase Revenue/Decreases costs

Improves Operational Efficiency

Using the scoring criteria below,
we identified to what extent and manner

This project negatively impacts this Decison Driver **to a great degree**.	This project negatively impacts this Decision Driver.	This Decision Driver does not apply to this project.	This project positively impacts this Decison Driver to a limited extent.	This project positively impacts this Decison Driver to a limited extent.	This project positively impacts this Decison Driver to a moderate extent.	This project positively impacts this Decison Driver to a moderate extent.	This project positively impacts this Decison Driver to a significant extent.	This project positively impacts this Decison Driver to a significant extent.	This project positively impacts this Decison Driver to a considerable extent.	This project positively impacts this Decison Driver **to the greatest degree possible**.
0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

did [a given project]
impact each of the requirements below:
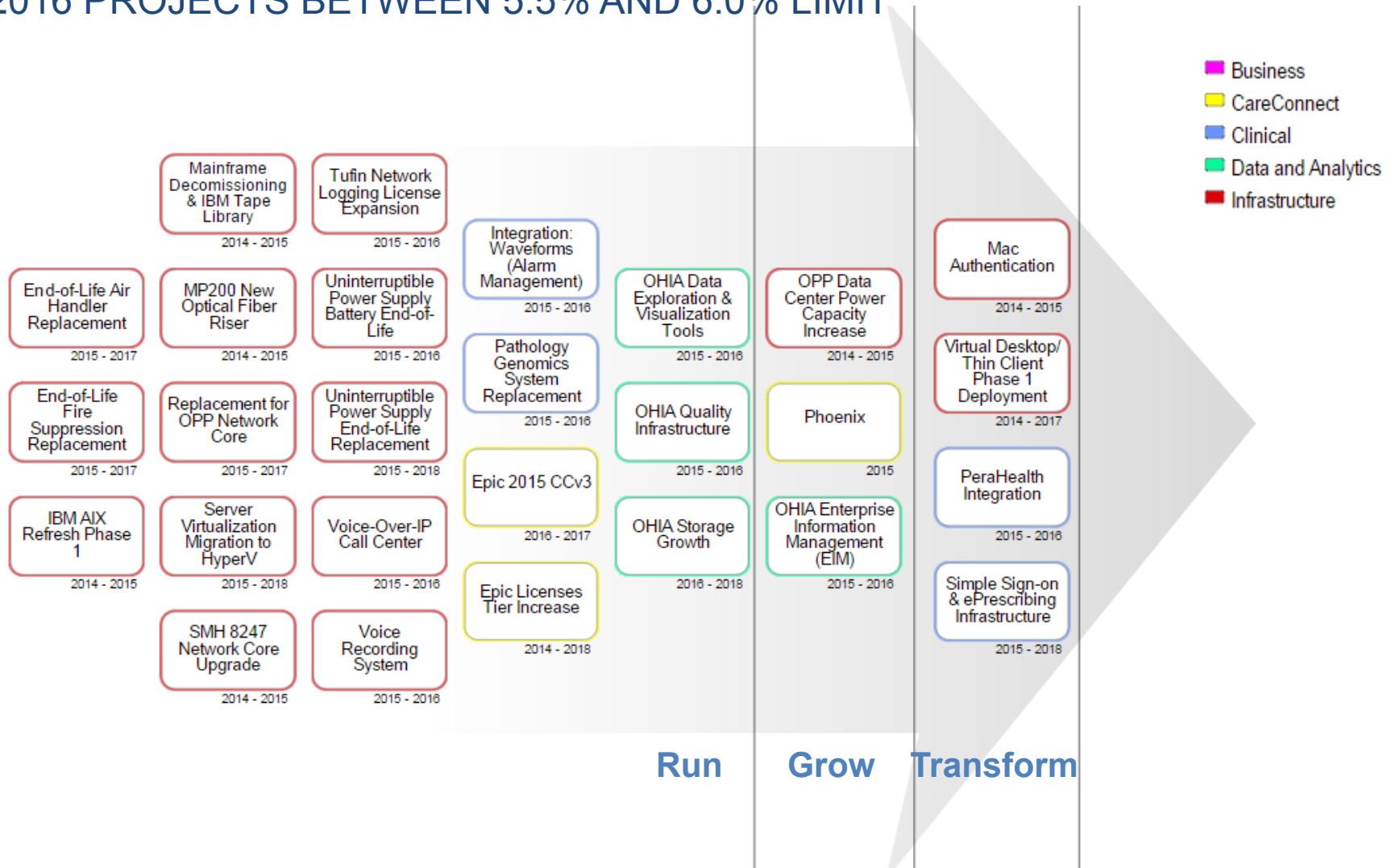
Aligns with Clinical Care Mission	Aligns with Community Mission	Aligns with Education Mission	Aligns with Research Mission	Ensures Business Continuity	Improves customer experience	Improves quality/ safety	Increases revenue/ decreases costs	Operational efficiency	Regulatory/ Compliance/ Contractual

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Sample Budget Table with Budget Markers

Score	Proposal Name	2014 Budget	2015 Budget	2016 Budget	2017 Budget	2018 Budget	Cumulative Total
547	OPP Datacenter Network Switch Replacement		$440,000				$440
580	Internet traffic sniffer replacement		$120,000				$560
460	OPP Row 8 Data Center Expansion		$424,958				$985
780	OPP chiller replacement		$900,000				$1,885
607	Servers Refresh		$850,000				$2,735
636	Print Cluster Upgrade		$75,000				$2,810
568	Pager Refresh		$98,000				$2,908
0	DNS Server Hardware Refresh		$200,000				$3,108
0	MP200 Paging Cabling Upgrade		$100,000				$3,208
738	Network Wilshire Center Infrastructure Refresh		$585,000	$585,000			$3,793
0	SDSC Cabinet Expansion		$207,000				$4,000
$4M | Budgeted: $4m | Band Total: $4m | Allocation: 100% | Cumulative Total: $4m							
706	WOW Refresh	$1,050,867	$1,050,867	$1,050,867	$1,050,867		$5,051
628	Computer Hardware Refresh - PCs and Printers		$2,107,655				$7,159
622	E-Fax Service Upgrade		$115,000				$7,274
702	Enterprise Storage Consolidation and Expansion		$500,000				$7,774
$8M | Budgeted: $8m | Band Total: $3.8m | Allocation: 97% | Cumulative Total: $7.8m							
722	UPS IDF Replacement		$240,000	$240,000			$8,014
629	Paging Transmitter Disaster Recovery Equipment		$16,000				$8,030
471	System Center Refresh (SCCM & SCOM)		$207,000				$8,237
573	Desktop VoIP refresh		$1,100,000				$9,337
548	Check Point (Pointsec) Encryption Upgrade		$75,000				$9,412
518	Virtual Private Network Upgrade and Redesign		$75,000				$9,487
$10M | Budgeted: $10m | Band Total: $1,7m | Allocation: 95% | Cumulative Total: $9.5m							

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Roadmap Example

FY2016 PROJECTS BETWEEN 5.5% AND 6.0% LIMIT

Legend:
- Business (magenta)
- CareConnect (yellow)
- Clinical (blue)
- Data and Analytics (green)
- Infrastructure (red)

Run | **Grow** | **Transform**

Project	Timeframe
Mainframe Decomissioning & IBM Tape Library	2014 - 2015
Tufin Network Logging License Expansion	2015 - 2016
End-of-Life Air Handler Replacement	2015 - 2017
MP200 New Optical Fiber Riser	2014 - 2015
Uninterruptible Power Supply Battery End-of-Life	2015 - 2016
Integration: Waveforms (Alarm Management)	2015 - 2016
OHIA Data Exploration & Visualization Tools	2015 - 2016
OPP Data Center Power Capacity Increase	2014 - 2015
Mac Authentication	2014 - 2015
End-of-Life Fire Suppression Replacement	2015 - 2017
Replacement for OPP Network Core	2015 - 2017
Uninterruptible Power Supply End-of-Life Replacement	2015 - 2018
Pathology Genomics System Replacement	2015 - 2016
OHIA Quality Infrastructure	2015 - 2016
Phoenix	2015
Virtual Desktop/ Thin Client Phase 1 Deployment	2014 - 2017
IBM AIX Refresh Phase 1	2014 - 2015
Server Virtualization Migration to HyperV	2015 - 2018
Voice-Over-IP Call Center	2015 - 2016
Epic 2015 CCv3	2016 - 2017
OHIA Storage Growth	2016 - 2018
OHIA Enterprise Information Management (EIM)	2015 - 2016
PeraHealth Integration	2015 - 2016
SMH 8247 Network Core Upgrade	2014 - 2015
Voice Recording System	2015 - 2016
Epic Licenses Tier Increase	2014 - 2018
Simple Sign-on & ePrescribing Infrastructure	2015 - 2018

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FY2016 Spend by Type

FY2016 Spend by Category

ALLOCATING RESOURCES

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Effort < 40 hours	Effort > 40 hours
Service Request	Project
Prioritized by workgroup or advisory group	Follows PMO processes

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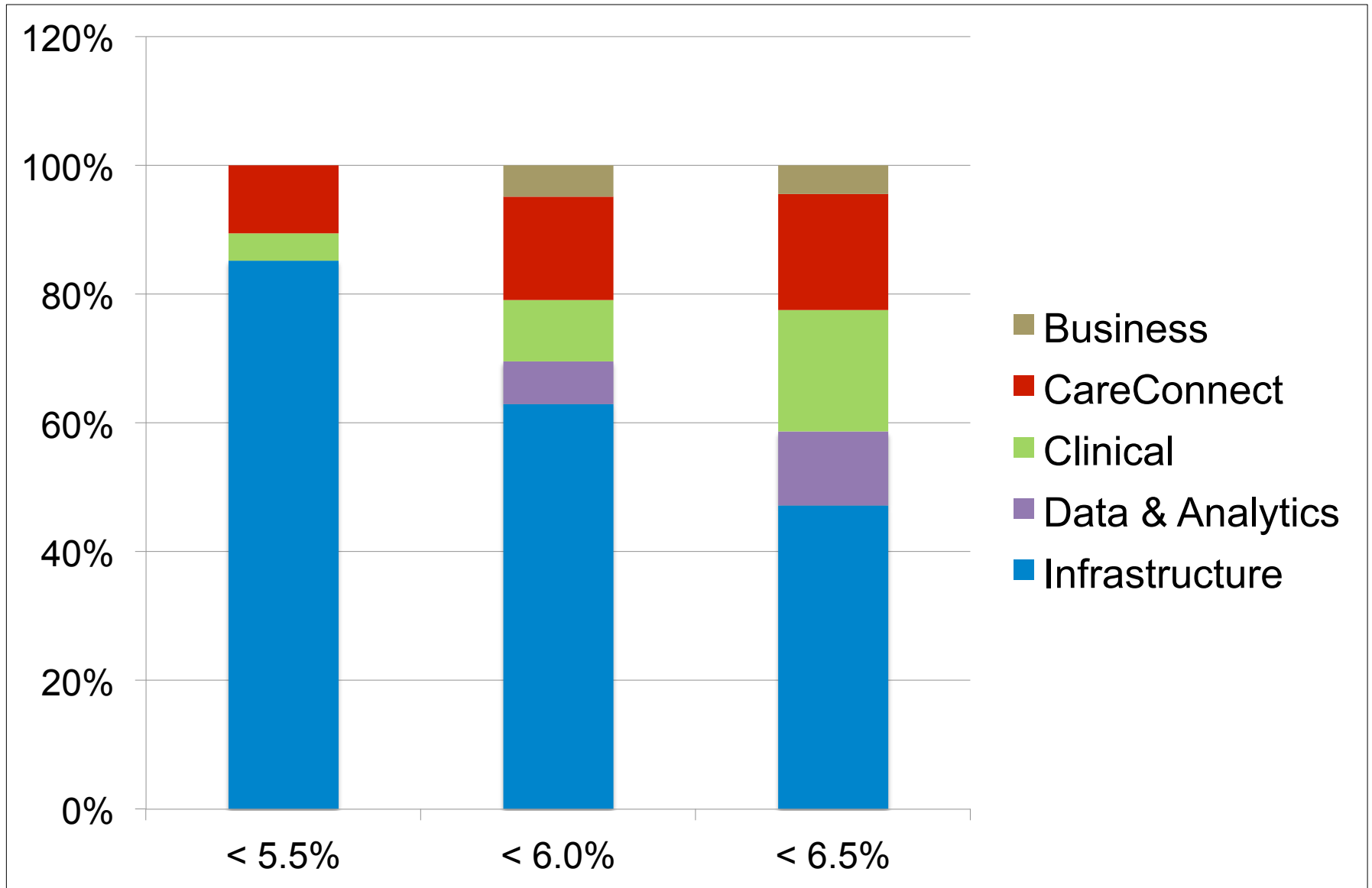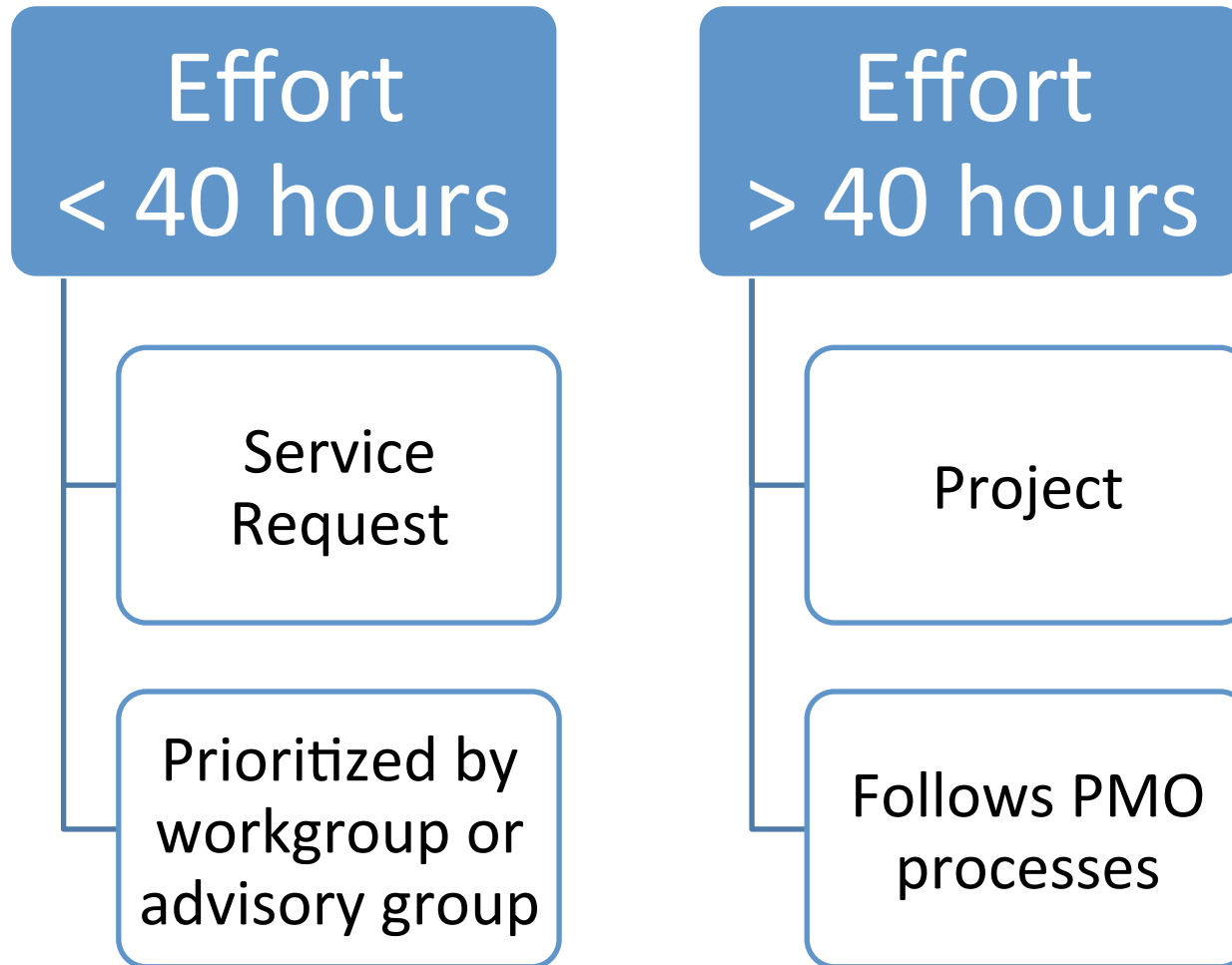
Allocating resources

30%	Quick wins, innovation <40 hour projects
30%	New business, complex projects > 40 hour projects
40%	General maintenance / administrative / Break-fix (non-optimization)

Sample Decision Document: Trauma Name Changes

Decision Point: *Define who can change an Inpatient Name*

Background/Context:
- Concerns have been raised about the medical necessity for positively associating a patient with their legal name. Epic's strong recommendation is to utilize the "Alias" field for the legal name, then update or merge (if existing MRN) after discharge
- Alias does not print on wristband
- There are >200 Templates in CareConnect that can change the Inpatient names and name and this is occurring without coordination of the Nurse and downstream systems such as Blood Bank, Lab and Pharmacy

Link to Guiding Principles:
- Decisions will be made based upon the **best interests of the patients**.
- We will focus on the best approach for the **overall UCLA organization**, while considering and balancing the needs of various constituencies.
- **Workflow process standardization** to drive consistent outcomes will prioritize enterprise-wide objectives versus individual, unit or department-specific objectives.

Key Considerations:
ED personnel can update the patient's name without any downstream implications *until the patient is marked **Arrived** in the ED*.

If the patient's name is updated prior to surgery or before transfer to the inpatient bed:
- Significant delays in providing blood products to the patient could occur
- Every downstream interfaced system must accept the name change
- Printed armbands, labels, etc. would need to be reprinted for proper patient identification
- There must be intense coordination among a designated team of CareConnect support and ancillary department personnel to assure downstream systems stay in sync.

Risks:
Significant positive and negative testing needs to be completed to determine the full functionality of Security Point-99.

Recommendations:
- Remove Security Point-99 in PLY, POC and TST from all Templates with the exception of:
    - ADT UCLA PT Access Supervisor Template
    - ADT UCLA NPH PT Access Template
    - HIM UCLA Coding Director
    - HIM UCLA Chart Correction Analyst
    - HIM UCLA NPH Director
    - HIM UCLA PROJECT MANAGER TEMPLATE
    - HIM UCLA TRANS/ID STAFF TEMPLATE
    - OB Nursing Staff (3040000041 IP UCLA OB Nurse Template)
    - T HIM, ADM
- Once testing is completed and passed by the Testing team migrate the change into production

Process:
When the trauma patient arrives on the nursing unit and the patient does not have blood transfusing/ordered and the patient is not going to OR the RN will:
- Notify Admissions of the name change and MRN

Admissions will change the name and:
- Print new armband, labels and facesheet and will send them to the Nursing Unit
- Notify: Communications, Security, Patient Placement, Blood Bank, Clinical Lab and Pharmacy of the MRN and name change

RN will:
- Discard Trauma armband, labels and facesheet
- Place new armband on patient and put the labels and facesheet in the chart

Responsibilities

- **Nursing Informatics**
  - Define specifications (what exactly is needed)
  - Obtain governance approval
  - Assign to application team w/priority indicated
  - Communication back to requestor – status updates
  - Final review with business owners

- **Application Team**
  - Complete feasibility (estimate effort)
  - Design, build, testing
  - Change control & move to production

- **Principal Trainer**
  - Prepare end-user communication
  - Prepare & circulate training materials

- **Super User**
  - Unit based champion for new features

ASSESSMENT & OPPORTUNITIES

RN Satisfaction Survey Results

RN Satisfaction Survey	2014		2013
EHR tools support effective communication	84%	↑	81%
Overall satisfaction with reporting	81%	↑	70%
Overall satisfaction with training	90%	↑	79%
EHR tools are efficient and easy to use	82%	↑	72%

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Opportunities

Challenges:	Action:
Nursing Informatics structure being separate from Physician Informatics structure	Developed integrated Clinical Optimization Review Council (CORC)
Analyst perception that they were losing the relationship with the business owner	Ensure analysts are included in planning meetings & recognize the skills set they provide
Challenging getting clinical nurses to participate on workgroups	Offer money! Still a work in progress
Changes going into production too frequency; too many emails!	Non-urgent changes put into production twice a month

Clinical Optimization Review Council (CORC)

- ## Structure:
  - Meets weekly
  - Reviews both projects & service requests
  - Includes all clinical informatics teams & application teams
- ## Function:
  - Reviews all 'wide-reaching' clinical initiatives to determine:
    - Clinical appropriateness (filter)
    - Appropriate governance structure (approval & prioritization)
    - Applicable clinical & application teams (who's on first!)

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4/27/15

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