Nursing Informatics Led Optimization Program

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UCLA Health

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

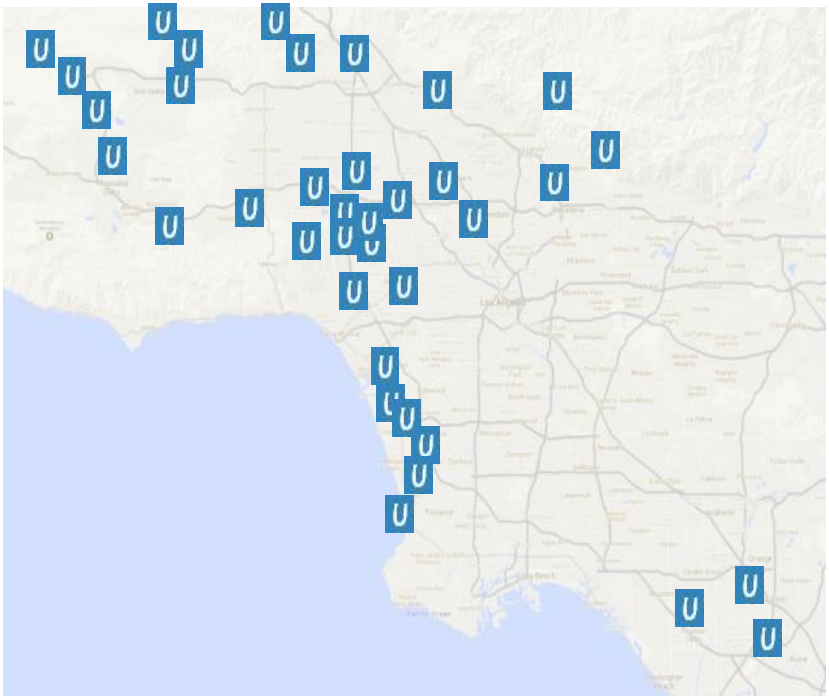
hospital encounters

250+

outpatient practices

1.5 mil

outpatient annual visits



UCLA Health EHR Implementation

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

June 2013 – July 2014
Ambulatory launch to 250+ practices in 5 waves

February 2014
Oncology goes live

February 2015
Double upgrade

September 2015
Laboratory, Transplant go-live scheduled

18,000+ Users

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

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

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!

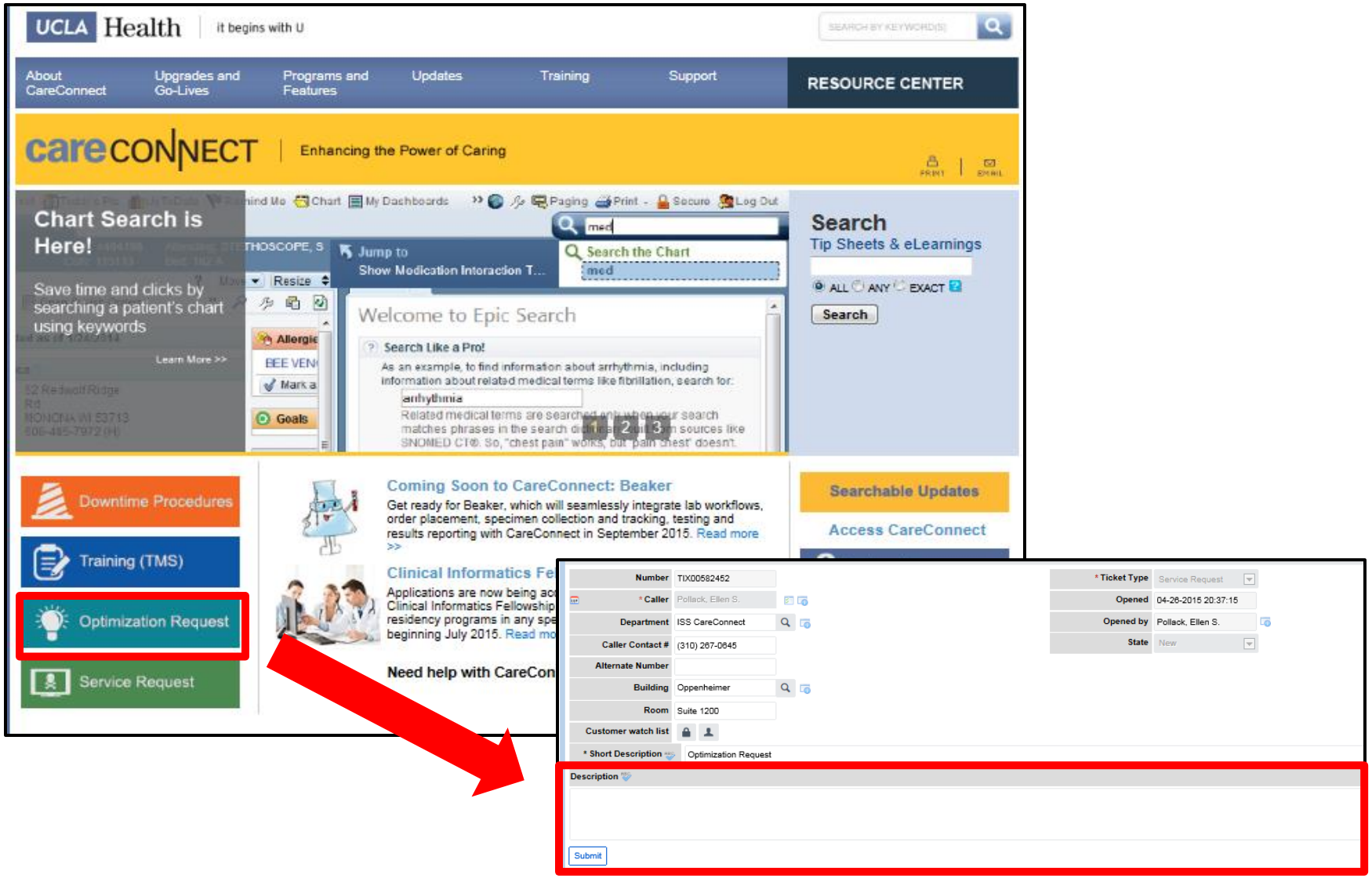
REQUESTS COME FROM ALL DIRECTIONS

Bottom Up

Top Down

Strategic Initiatives

Bottom Up Workflow



careCONNECT UCLA Health System

Optimization Workflow

Is it worth pursuing? Is it possible?

↓

NI to create proposal & develop specs

↓

Presented to governance group for approval & prioritization

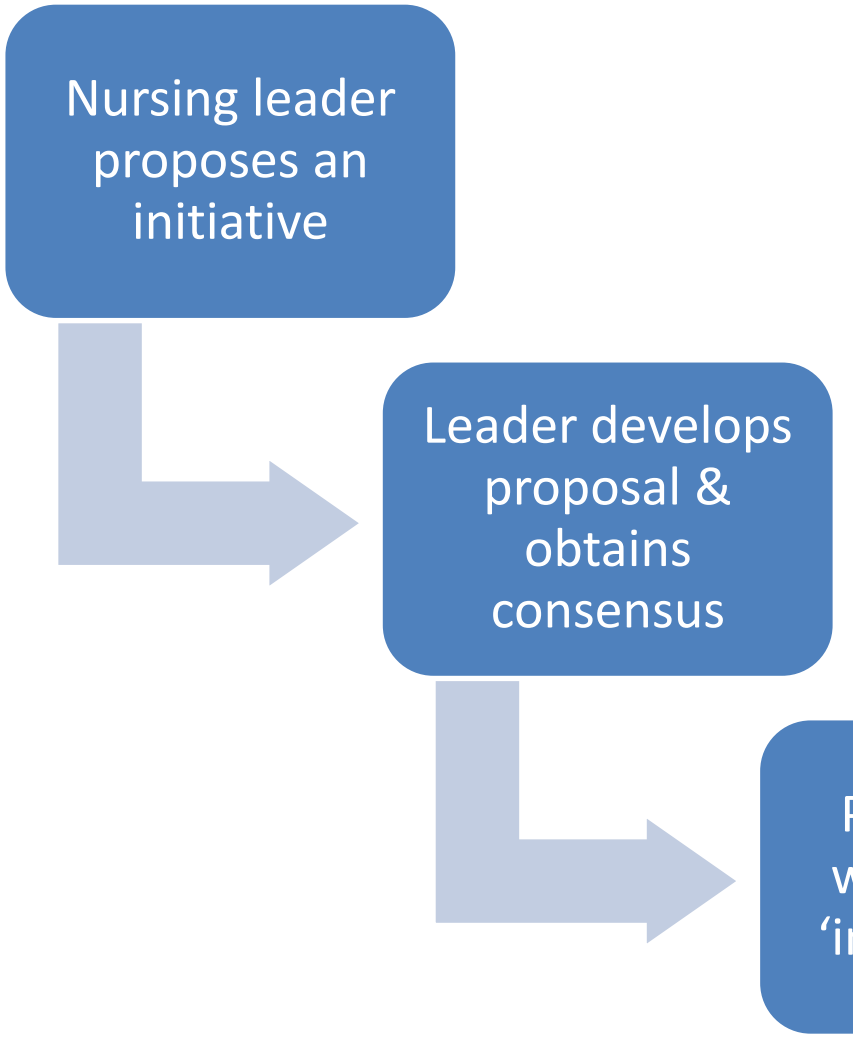
↓

Submit to Application Team for build

↓

Coordinate communications & training

Top Down Workflow



- Standardization required; nursing Informatics team assists with design
- All nursing related changes are presented to workgroup before being put in production

Clinical Optimization Review Council (CORC)

- Structure:
  - Meets weekly; reviews all clinical optimization requests
  - Internal to IT
- Attendees:
  - Nursing Informaticist, Physician Informaticist, Analyst (inpatient & ambulatory), Clinical Content, Decision Support, Security Design
- 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!)

Clarity Responsibilities

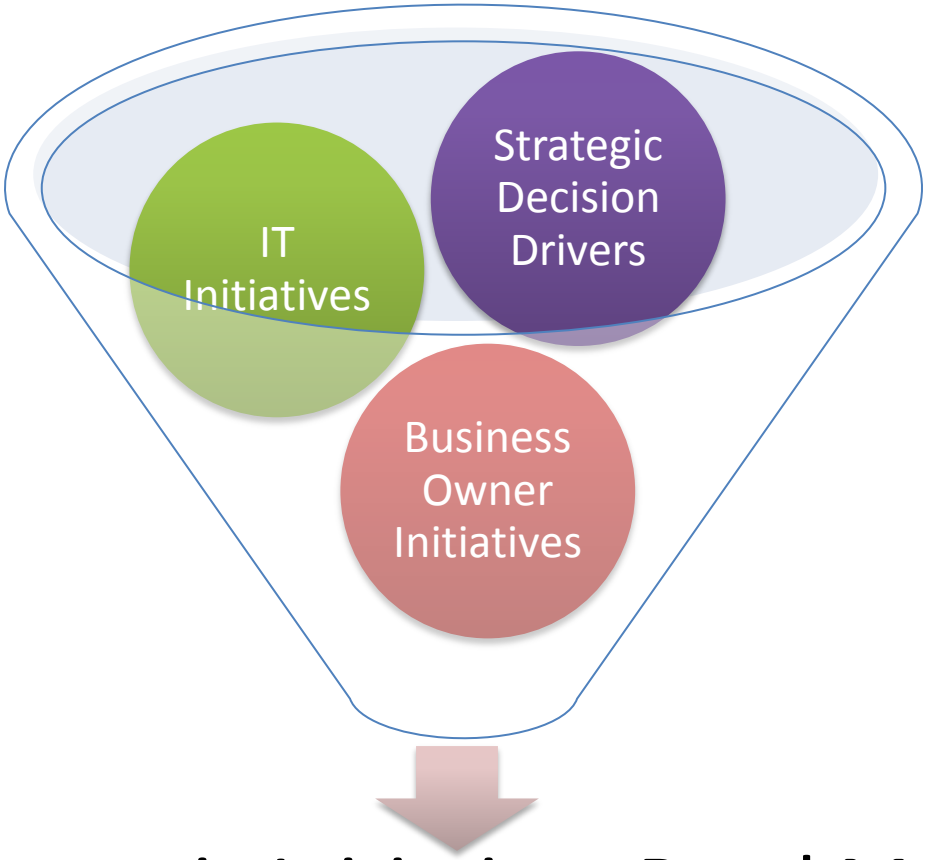
- Nursing Informatics
  - Define specifications (what exactly is needed)
  - Obtain governance approval
  - Assign to application team w/priority indicated
  - Communication back to requestor – status updates
  - Final review with business owners

- 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

Strategic Initiatives Road Map



Strategic Initiatives Road Map

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

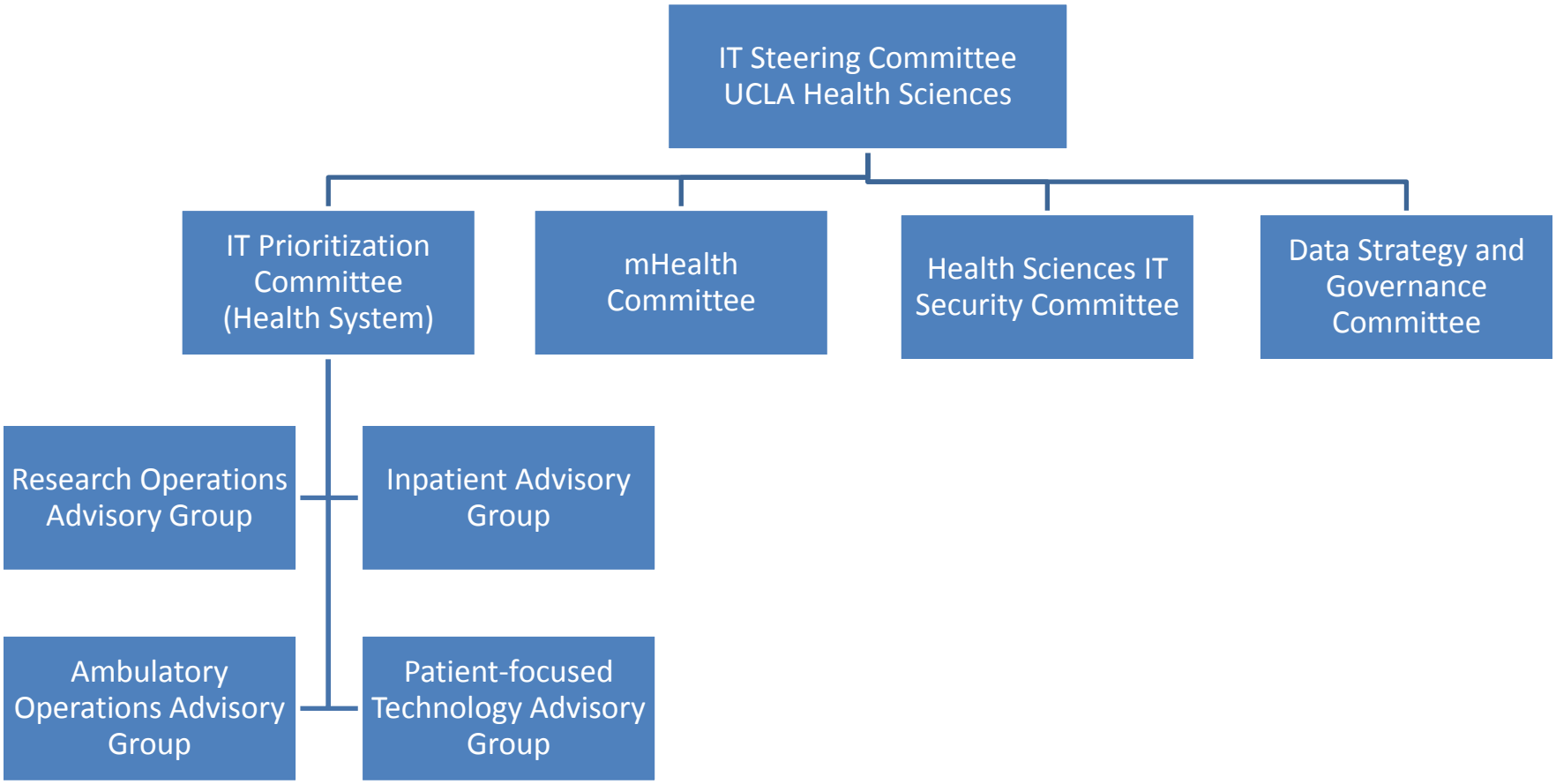
GOVERNANCE

Quote of the day….

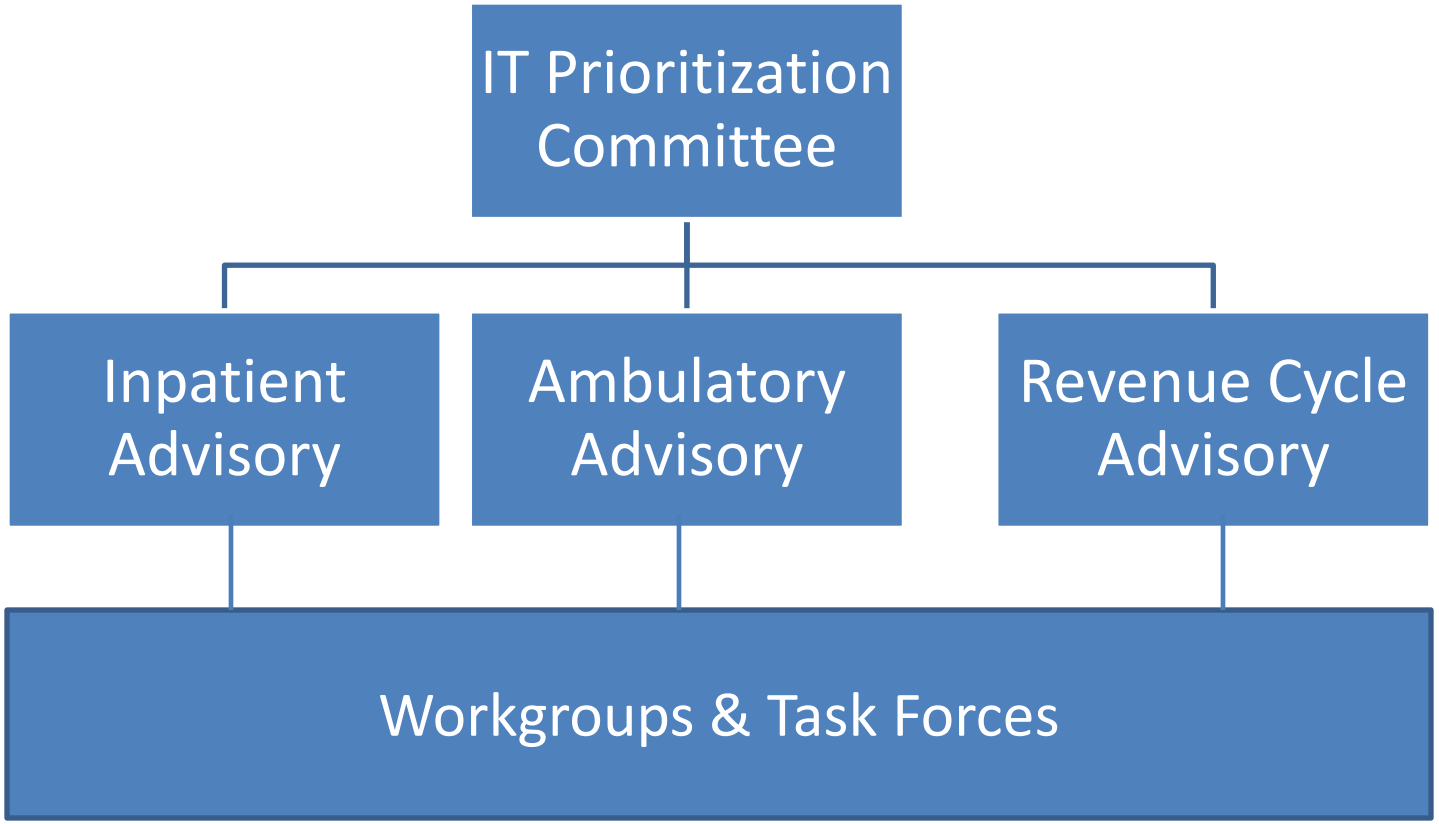
"When everything is a priority, then nothing is a priority"

Simon Fulleringer, IT professional

UCLA Health Sciences IT Governance



Governance Structure



Nursing Workgroups

- 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

Workgroups make recommendations to advisory groups

Task Force - examples

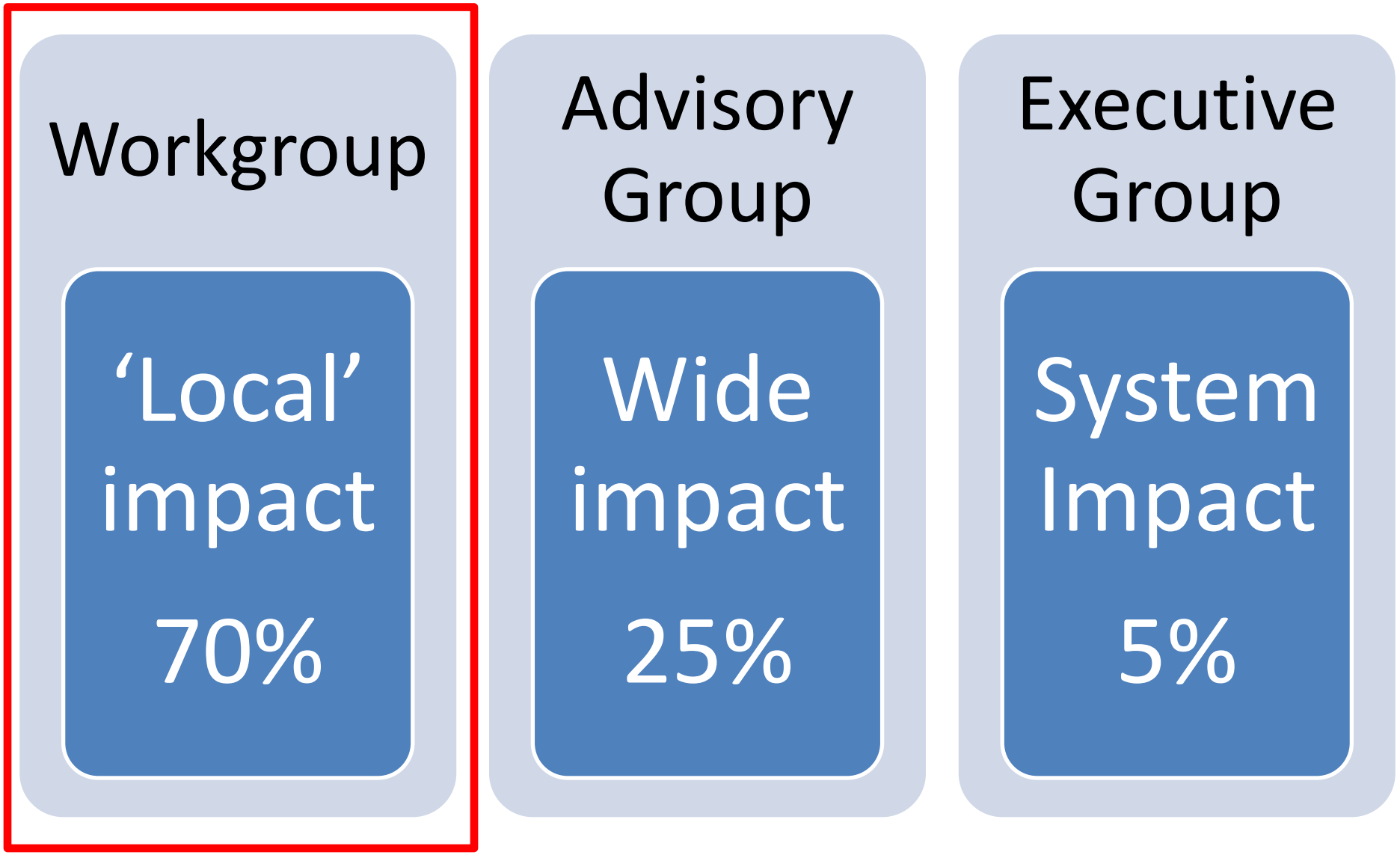
- Handover Reports
- Discharge Instructions
- Code blue documentation
- Admission assessment
- Sepsis
- Blood administration

Task Forces are formed around specific topics

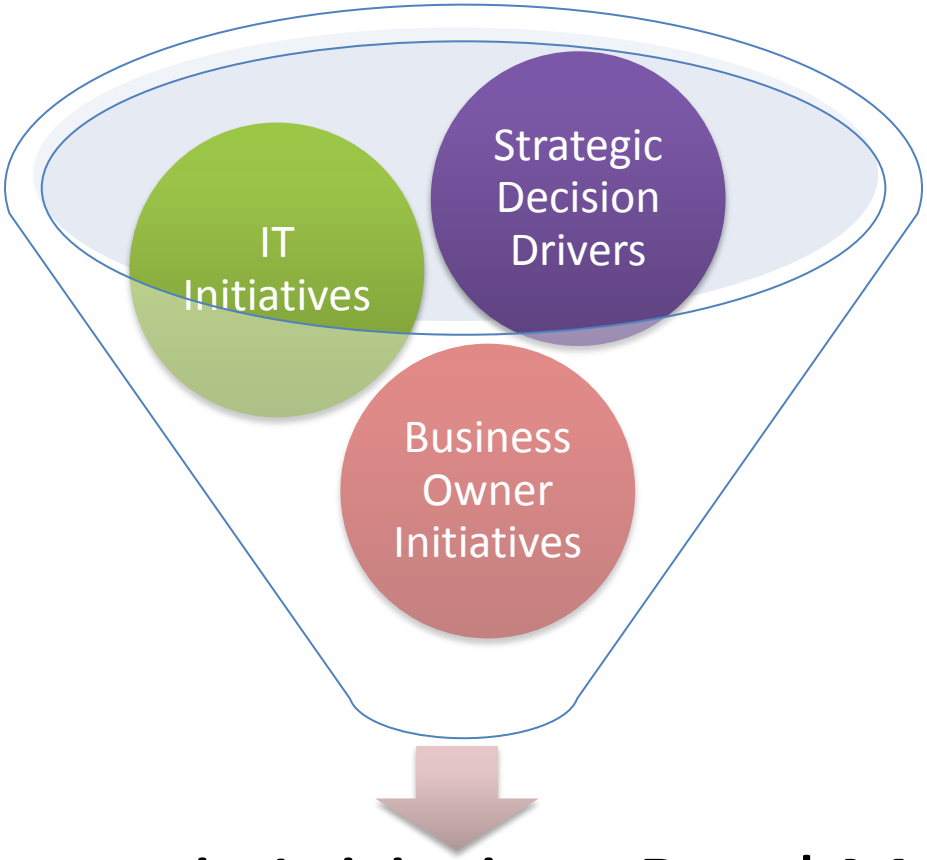
Short term
(typically 2-4 meetings)

Task force make recommendations to advisory groups

Governance


Workgroup
'Local' impact
70%
Advisory Group
Wide impact
25%
Executive Group
System Impact
5%

Strategic Initiatives Road Map



Strategic Initiatives Road Map

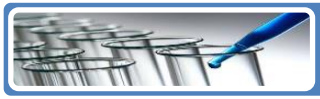
Run/Grow/Transform	Business Categorization	Budgeting and Funds Flow

Classifying Strategic Initiatives

- Run:
  - Cost of doing business/continuing operations
  - *Example: Infrastructure upgrades, software upgrades/patching*
- Grow:
  - Enhancing products, services or experiences.
  - *Example: Software replacements, data center growth/expansion*
- Transform:
  - New products, new business models, or new markets.
  - *Example: Mobile technologies, Inpatient Portal, Innovations*

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

Scoring Criteria and Decision Drivers

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**

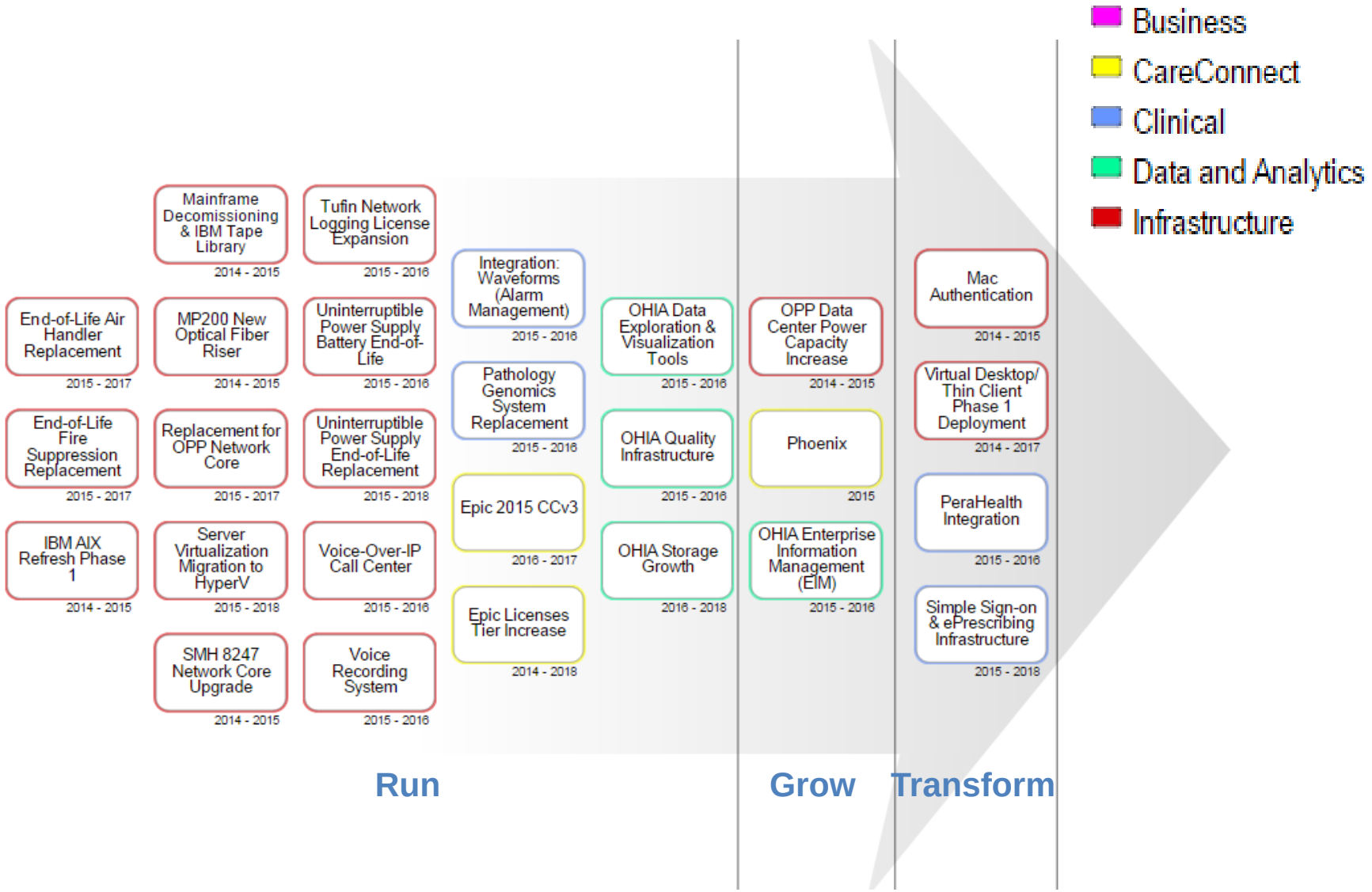
did [a given project] impact each of the requirements below:

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

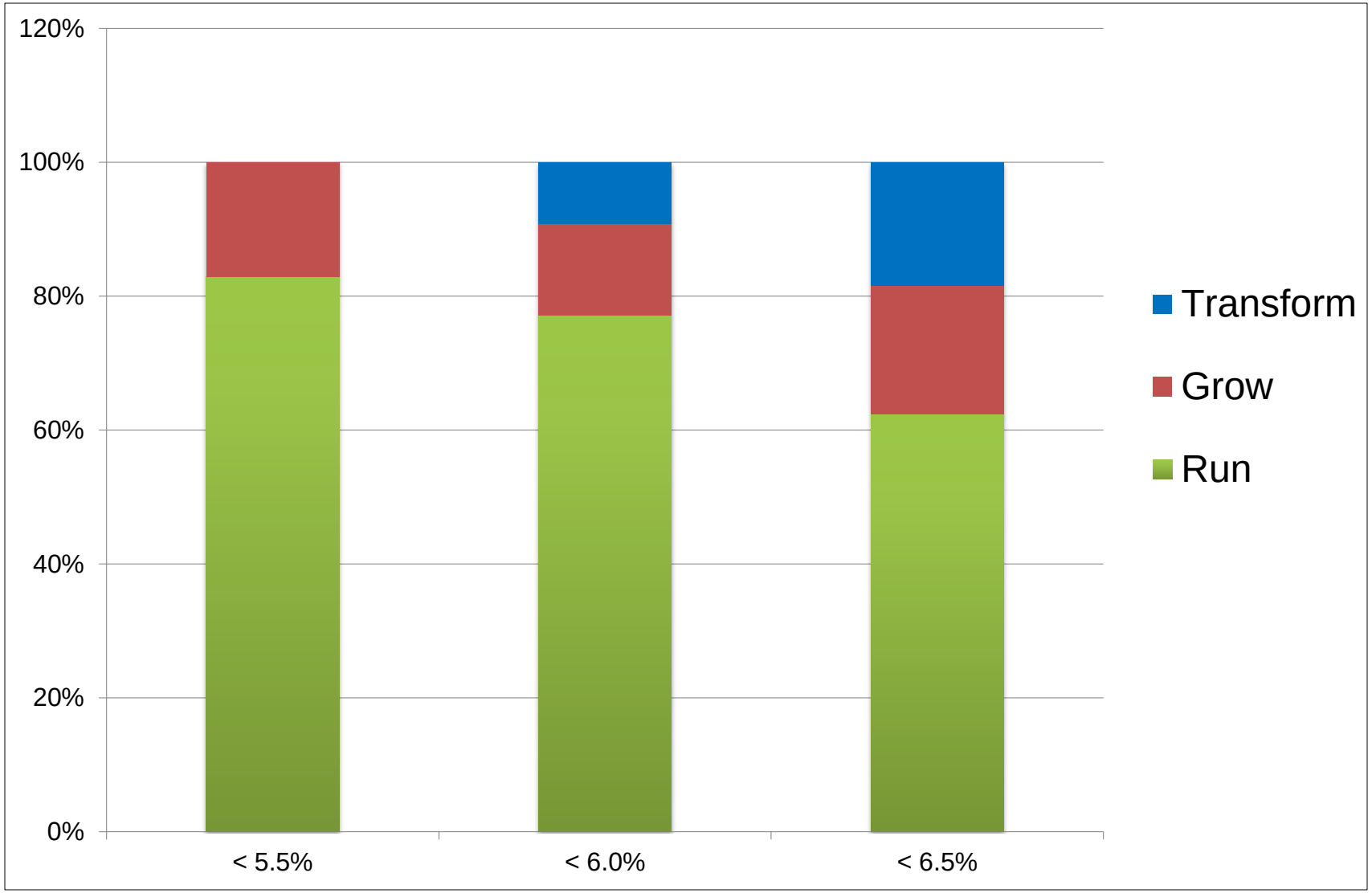
Sample Budget Table with Budget Markers

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**						

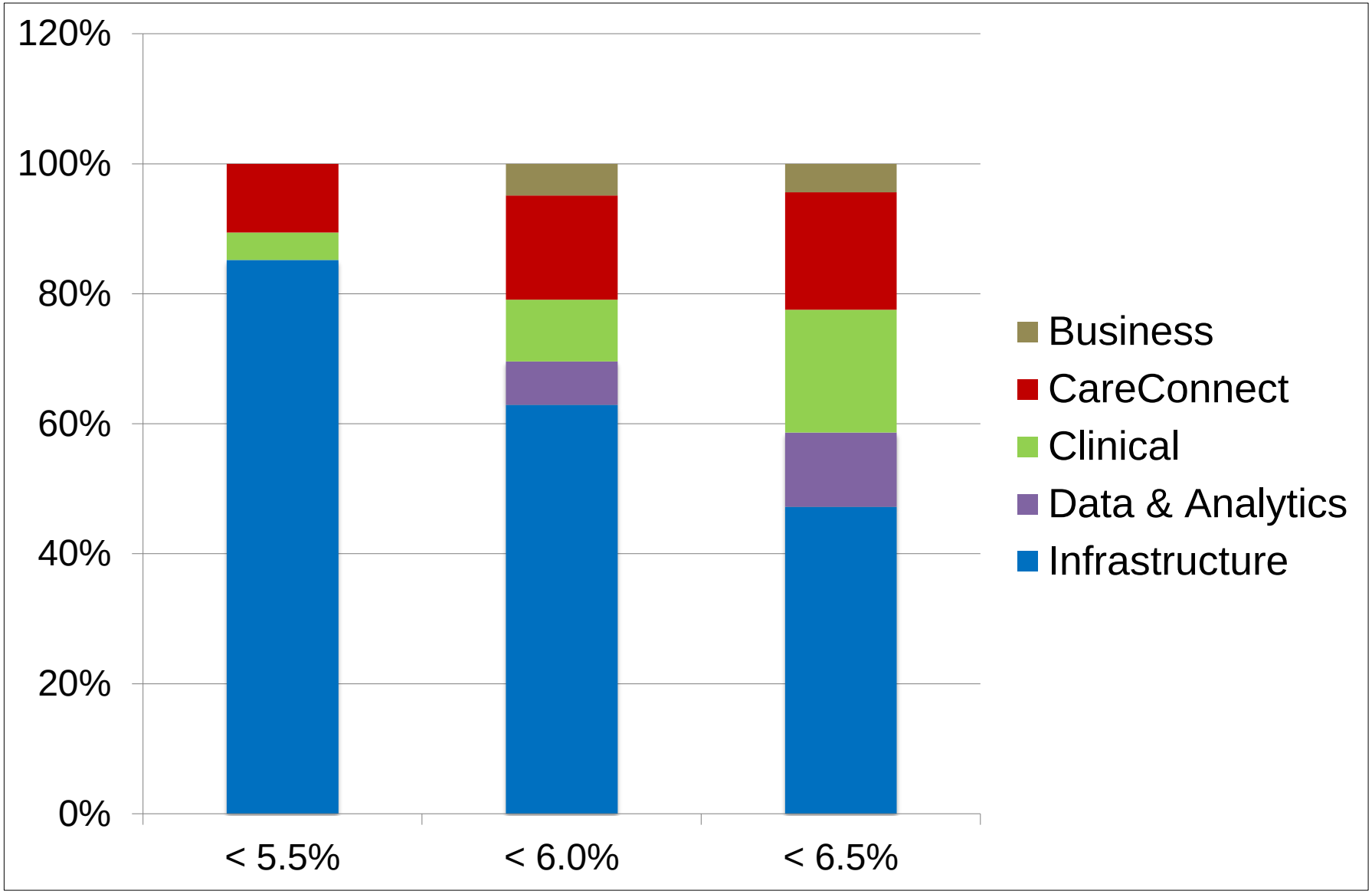
Roadmap Example



FY2016 Spend by Type

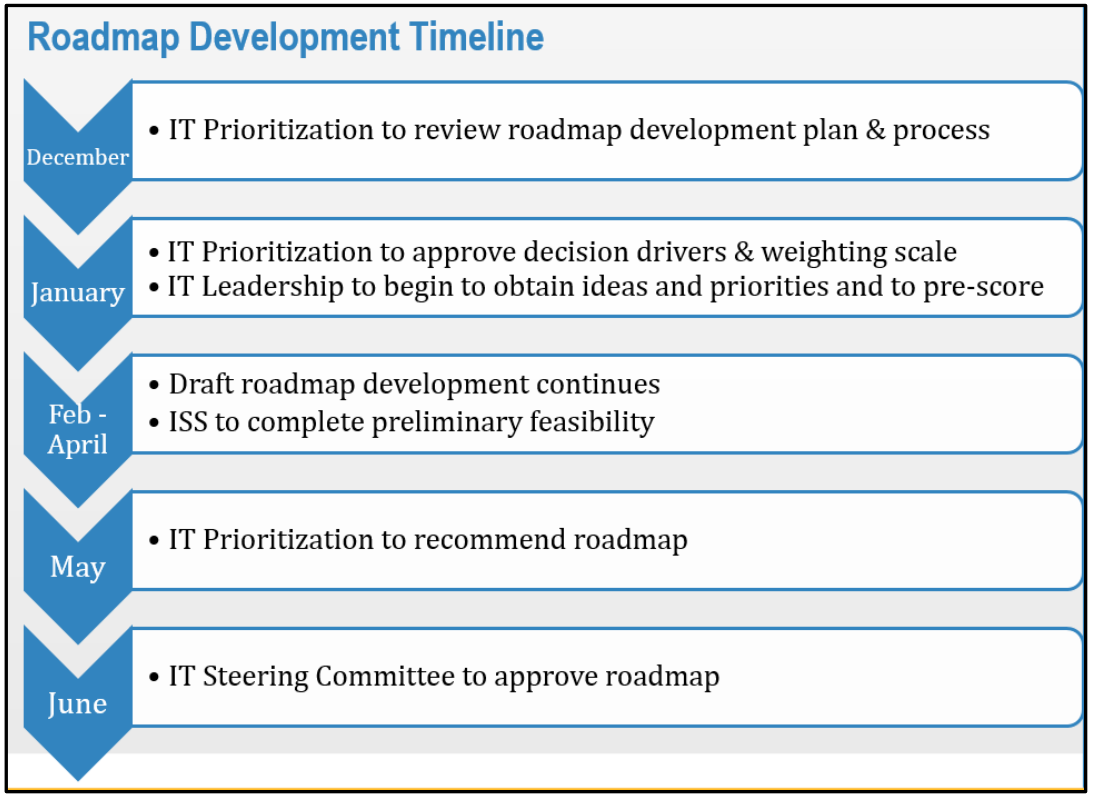


FY2016 Spend by Category



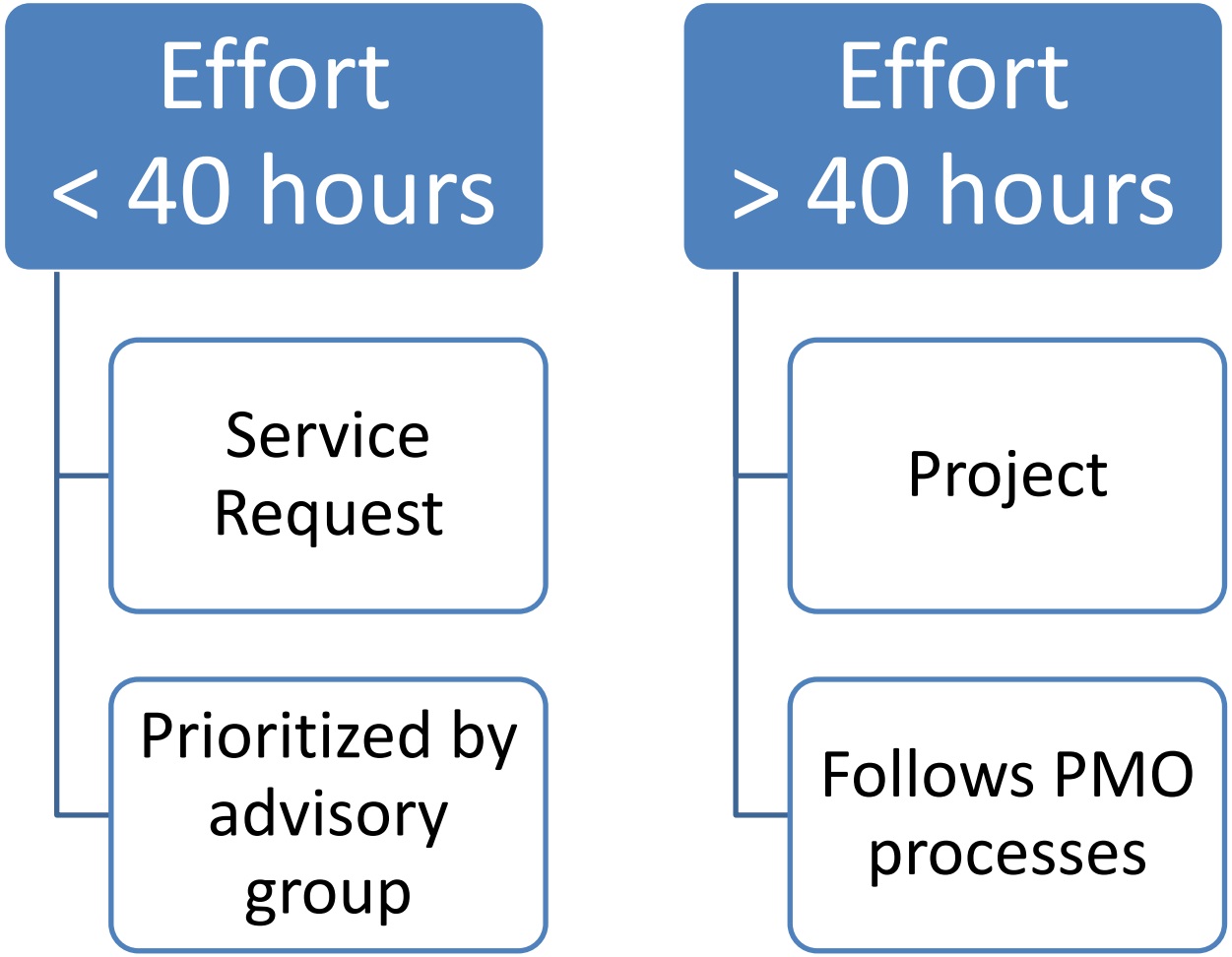
Roadmap Development Plans for FY17

- Will include both capital & and non-capital initiatives
- Reduce number of decision drivers to simplify scoring
- IT Prioritization will be more active in the development of the roadmap



ALLOCATING RESOURCES

Prioritization



Allocating resources

30% Quick wins, innovation
<40 hour initiatives

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

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

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
- Once testing is completed and passed by the Testing team migrate the change into production

Process:

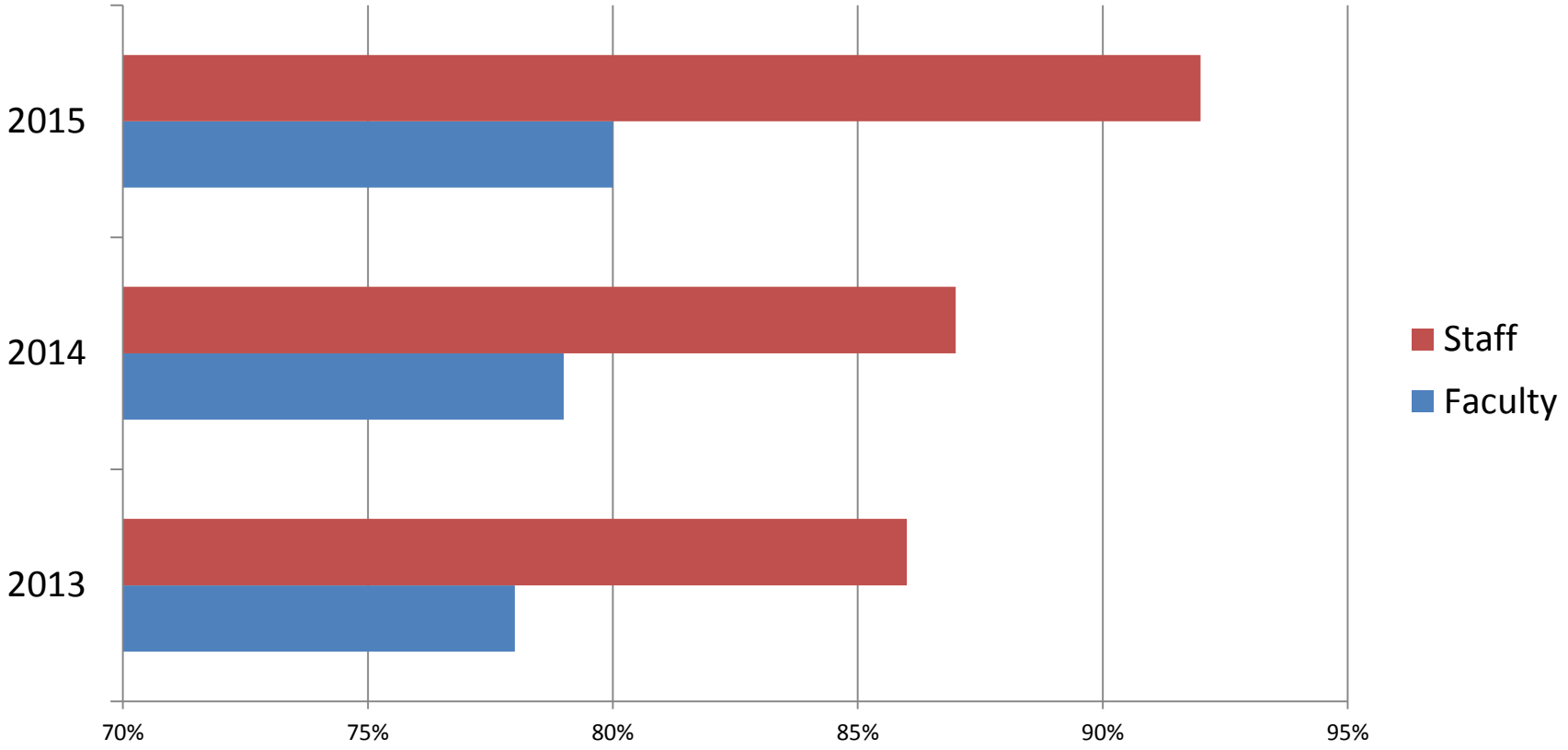
When the trauma patient arrives on the nursing unit and the patient does not have blood transfusing/ordered and the patient is not going to OR the RN will:
- Notify Admissions of the name change and MRN

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

ASSESSMENT & OPPORTUNITIES

Overall Satisfaction with EHR



Nurse Satisfaction Survey

	2015	2014	2013
EHR tools support effective communication	↑ 88%	84%	81%
Overall satisfaction with reporting	↑ 88%	81%	70%
Overall satisfaction with training	= 90%	90%	79%
EHR tools are efficient and easy to use	↑ 90%	82%	72%

Opportunities

Challenges:	Action:
Analyst perception that they are losing the relationship with the business owner	Ensure analysts are included in planning meetings & recognize the skills set they provide
Challenge 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 (may move to monthly)