# Exceptional **Value**

## ANNUAL REPORT

### FY14

UNIVERSITY OF UTAH
HEALTHCARE

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# THE EXCEPTIONAL VALUE ANNUAL REPORT

The purpose of this annual report is to share the successes and challenges University of Utah Health Care had in our journey during FY14.

**The Evolution of Cultural Change**
The biggest opportunity we had in FY14 was moving the exceptional value journey from a series of projects into a broad-based engagement of the organization in the daily pursuit of value, referred to as our "Value Management System".

Our exceptional value journey has been evolving over several years; starting with focused projects in opportunistic areas, expanding in FY13 through organization wide engagement, and transforming in FY14 into a focused and aligned Value Management System.

Our current challenge is to more fully develop our Value Management System, to ensure we stay focused on the patient experience, provide consistently high quality care, deliver seamless continuity in our services, and embrace a culture of continual improvement. Through a journey of continual improvement that is focused on our patient's needs we will be able to provide exceptional value to our community.

$$V_{(VALUE)} = \frac{Q_{(QUALITY)} + S_{(SERVICE)}}{\$_{(COST)}}$$
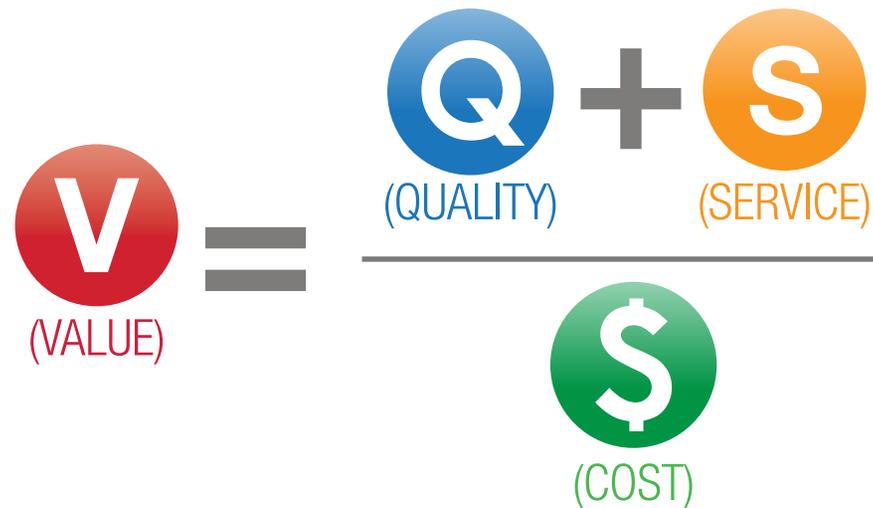
## What is Exceptional Value?
Improving patient outcomes and service while reducing our costs. This simple equation delivers a high level of value to our patients, payers, and employees. The equation is simple. But the journey requires all of us to be engaged in improving value.

# GOALS

For the past six years, University of Utah Health Care
has maintained its focus on three key goals:

Exceptional Patient Experience
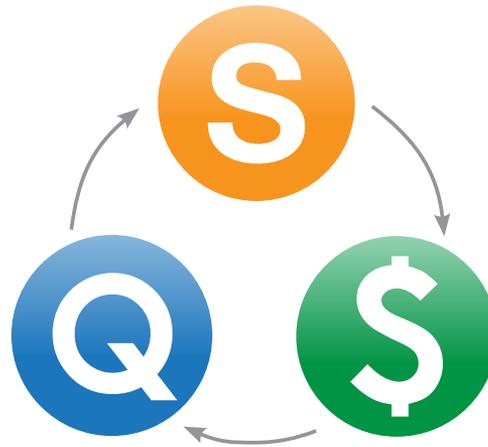


Quality | Financial Strength

We believe that through this focus and alignment, we
collectively are transforming the care we deliver our patients.

# PATIENT EXPERIENCE

Over the past five years we have made it easier for patients to come to us for their clinical care. Our outpatient satisfaction has dramatically improved over the past four years.

| | |
|---|---|
| FY11 | 29 |
| FY12 | 53 |
| FY13 | 71 |
| FY14 | 75 |

**System Ambulatory Patient Satisfaction National Rank—Overall Score**
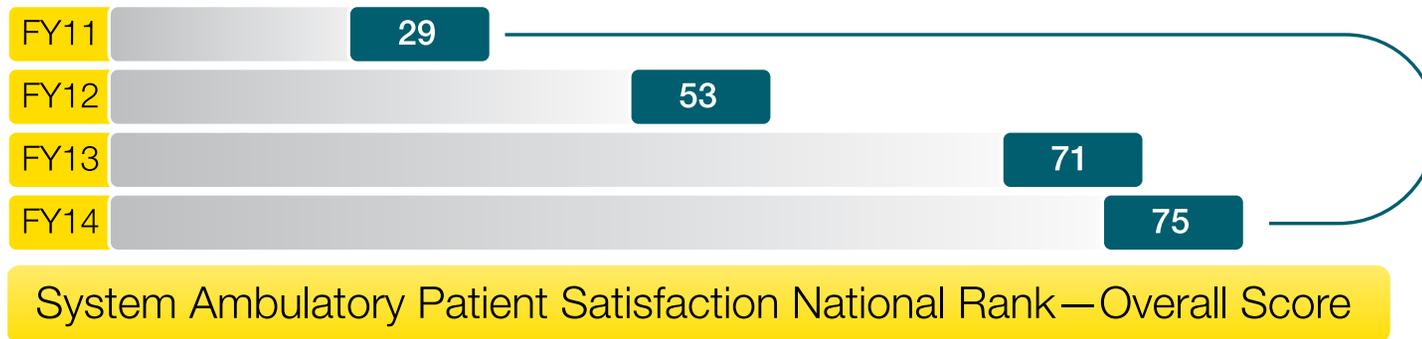
Our physicians have also been recognized as national leaders in patient value for becoming the **first medical group in the country to transparently post patient reviews and comments**.

The organizations that can help physicians to live up to their aspirations as caregivers—to understand that giving up their autonomy is not actually surrender but a noble act of humility in the interest of their patients—will be the ones that improve efficiency, deliver the best outcomes, increase their market share, and retain and recruit the best people.

*—Harvard Business Review;*
*Engaging Physicians in the Revolution; June 2014;*
*Thomas H. Lee and Toby Cosgrove*

# QUALITY

Our quality and outcomes are some of the best in the country as compared to our peer academic medical centers. University Healthsystems Consortium (UHC) recognized our organization each of the past five years as one of the top 10 academic medical centers in the country for our quality and patient safety. This achievement requires constant vigilance in order to retain this recognition. Our competing academic medical centers are also actively pursuing a journey of quality improvement and we cannot rest upon past success to ensure future performance.

**Ranking out of >98 National Academic Medical Centers**

| Year | Rank |
|------|------|
| 2008 | 50 |
| 2009 | 37 |
| 2010 | 1 |
| 2011 | 7 |
| 2012 | 4 |
| 2013 | 9 |
| 2014 | 6 |
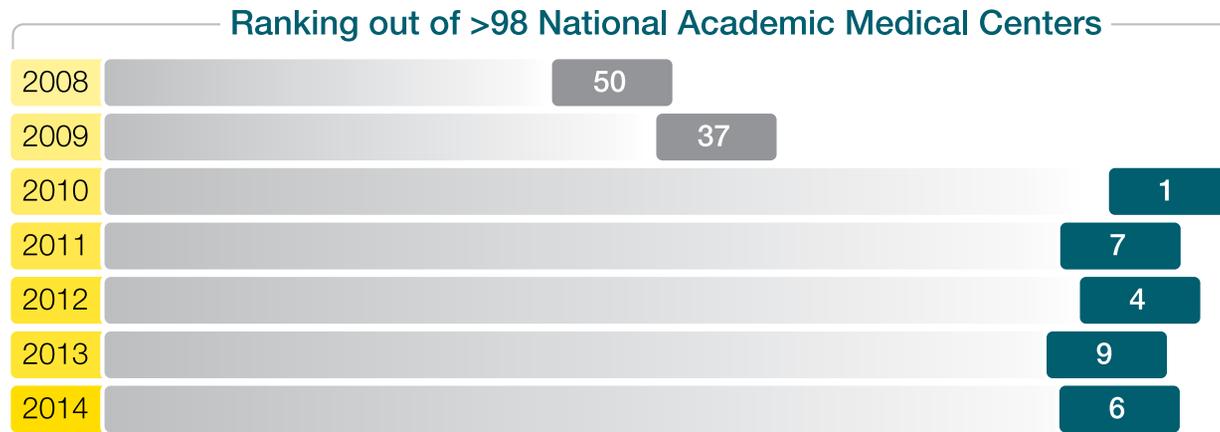
**Sustaining Value Compared to AMC Peers**

*UHC Quality & Accountability Annual Scorecard

Even though we are proud of these results in delivering a heightened level of exceptional value, we know that our journey has only begun.

# FINANCIAL STRENGTH

In order to be considered a valued partner to our patients and payer community, they expect and demand that we use our resources wisely and efficiently. There are organizations within our community who are considered national leaders in this area.

We are proud of the effort and success University of Utah Health Care (UUHC) has experienced over the past four years to becoming increasingly more efficient while performing as one of the highest quality academic medical centers in the country. We have consistently become more efficient at a pace faster than the average hospital and in FY14 we even performed at a rate better than FY13.



**3.5%**
U.S. Health Care Inflation

**1.4%**
UUHC Inflation

| | | | |
|---|---|---|---|
| $9,221 | $9,562 | $9,859 | $10,204 |
| $8,947 | $9,143 | $9,407 | $9,395 |
| FY11 | FY12 | FY13 | FY14 |

**Total Expense per CMI Adj. Discharge**



| | | | |
|---|---|---|---|
| 47.1% | 46.7% | 46.5% | 45.9% |
| FY11 | FY12 | FY13 | FY14 |
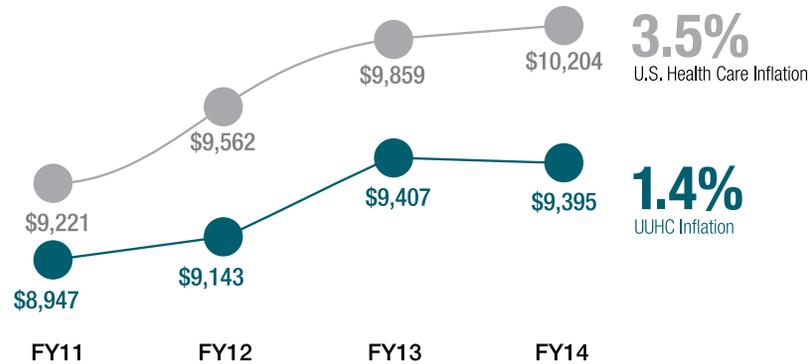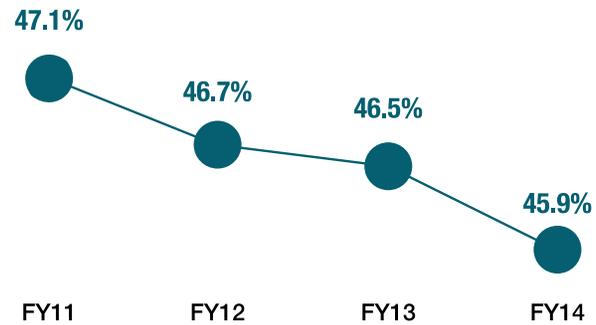
**Salaries, Wages, Benefits as a % of Income**

We have become more efficient over time. Although our total expense has grown, it has grown dramatically less than overall health care inflation for the region or the nation making UUHC a more cost effective alternative to other organizations.

UUHC employees have seen their wages increase over 8.7% since FY11. At the same time salaries, wages, and benefits has been declining as a percentage of income. A root cause of this decline is reduction in non-value-added activity in the UUHC system. There is enough natural attrition to support this decline.

# THE EXCEPTIONAL VALUE JOURNEY

The biggest opportunity we had in FY14 was moving the exceptional value journey from a series of improvement projects into broad-based engagement of the organization in the daily pursuit of value, referred to as our "Value Management System".

The exceptional value journey has developed over several years. Starting with focused projects in local areas, in FY13 expanding and spreading lean principles across the organization, and in FY14 developing a focused and aligned effort to systematically drive continual improvement across the organization. This year, we challenged ourselves to deepen the culture of performance improvement; transitioning the focus of exceptional value from a series of projects into a value management system. Our biggest opportunity is to clearly communicate, to align our efforts, and to continue to learn from successes and challenges.

## PRINCIPLES OF VALUE MANAGEMENT

1. Our PATIENTS define value

2. Our decisions are based on FACTS

3. SAFETY is always our first imperative

4. Our LEADERS prioritize and support important work

5. PEOPLE drive improvement and are valued for work

6. We use a SYSTEM APPROACH to management

7. We design effective and efficient PROCESSES

8. We are always IMPROVING value

# LEADING HEALTHCARE TRANSFORMATION

**In FY14, University of Utah Health Care received unprecedented national recognition for leadership in the delivery of value-based healthcare.**
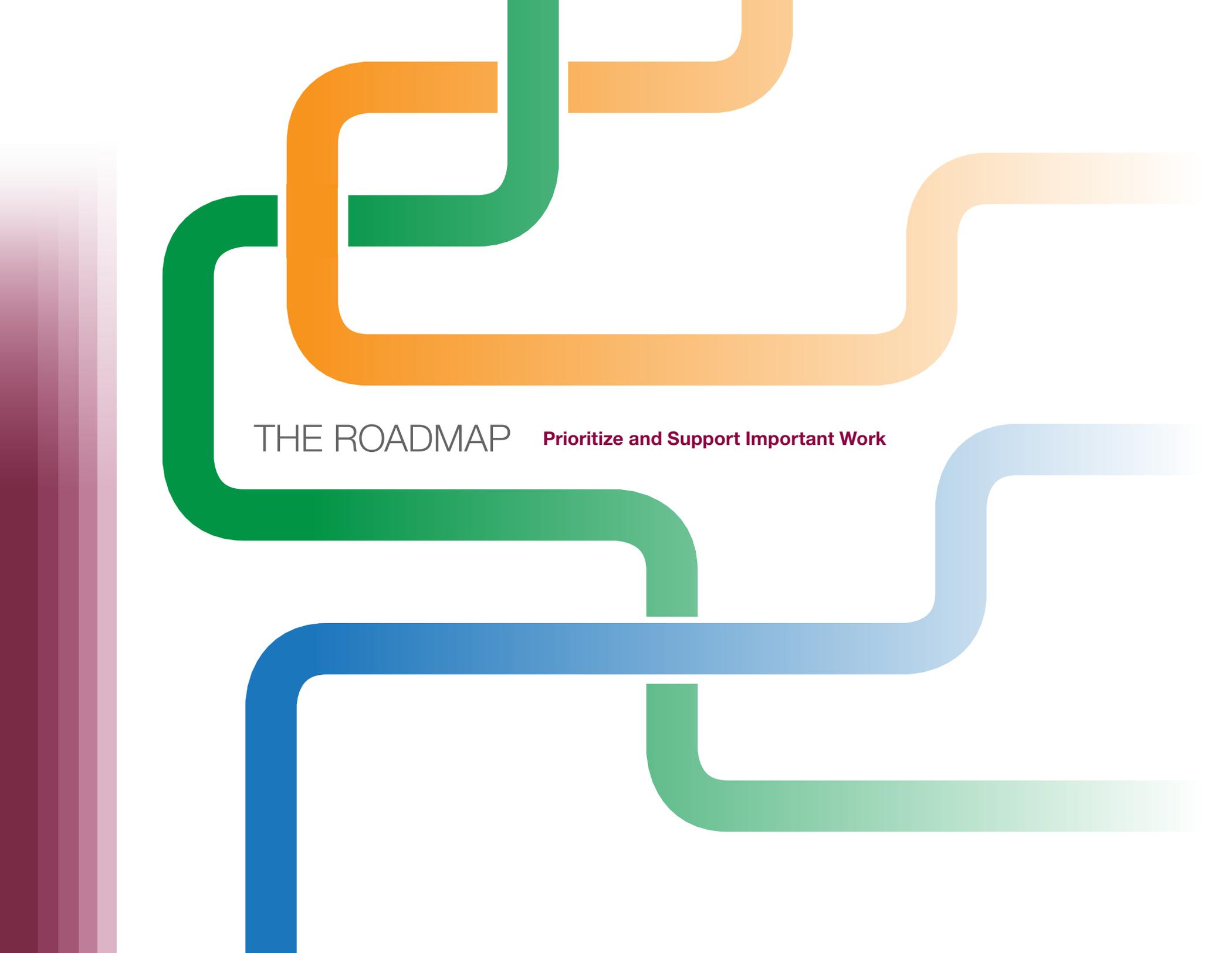
# THE ROADMAP

**Prioritize and Support Important Work**

# OPERATIONAL STRATEGY FY14

| | INITIATIVES | MEASURES |
|---|---|---|

## EXCEPTIONAL PATIENT EXPERIENCE

| Initiative | Measures |
|---|---|
| Improve Patient Access | • For all clinics not at 80% of new patients seen within 14 days, reduce the gap by 50%.<br>• For all other clinics reduce the new patient average schedule lag by 15%.<br>• Achieve overall performance for new patient ease of scheduling at the 80th percentile for at least one quarter. |
| Improve Overall Ambulatory Patient Satisfaction Scores | • Achieve overall satisfaction of 80th percentile or above for two of four quarters.<br>• All clinics will achieve overall satisfaction for at least the 70th percentile for one quarter. |
| Increase Internal Referrals | • Identify the top 3 to 5 referral groups being sent outside the system.<br>• Establish access strategies to improve internal referral capture for these 3 to 5 sources by 25%. |
| Improve HCAHPS Performance | • Exceed the 50th percentile in HCAHPS performance for at least one of four quarters for the following:<br>  ◦ Pain Management<br>  ◦ Communication |
| Expand Referral Management System | • Send communication to referring providers and PCPs within 7 days for 80% of the patients.<br>• Establish a "concierge" type service for expedited referrals and physician to physician communications. |

## QUALITY

| Initiative | Measures |
|---|---|
| Improve Patient Safety | • Improve the hospital rate of (1) C-Diff, (2) ICU CA-UTI, and (3) ICU CLABSI in FY14.<br>• Establish a baseline, targets and dashboard for the identified patient safety targets by 1st quarter FY14.<br>• Achieve improvement targets for the three patient safety concerns from baseline by the 4th quarter FY14. |
| Achieve 100% Core Measure Compliance | • Create public and transparent core measure monthly reports.<br>• Achieve 100% compliance on core measures by January 1, 2014 and maintain for two quarters.<br>• Develop PQRS infrastructure in FY14. |
| Successful Implementation of Epic One Chart | • 100% of users will be trained prior to go-live.<br>• Targeted go-live date is achieved.<br>• One Chart is implemented at or below budget.<br>• Implement physician KPI dashboard. |
| Continue Implementation of the Exceptional Value Initiative | • Finalize an agreed upon physician costing methodology that includes and standardizes departmental direct and indirect costs of delivering clinical service.<br>• Fully utilize the Innovation Station across the system with a completed and an active lean project in all departments and service lines.<br>• Identify and initiate 10 clinical pathway redesign projects with potential annualized costs savings of $5 million. |
| Optimize Epic Care | • Work with one specialty clinic to identify Epic Care optimization opportunities by November 2013.<br>• Optimize Epic Care work flows in the pilot clinic by March 2014.<br>• Develop the plan and begin implementation to optimize all clinics' Epic Care systems by June 2014. |

## FINANCIAL STRENGTH

| Initiative | Measures |
|---|---|
| Establish a Physician Recruitment and Retention Plan | • Implement the South Jordan Health Center physician recruitment business plan in conjunction with the SOM departments and UUMG.<br>• Meet or exceed budgeted visits by 4th quarter FY14. |
| Successful Meaningful Use Attestation | • Successful attestation for 50% of eligible physicians in FY14. |
| Improve Overall System Efficiency and Effectiveness | • Reduce overall total expense per CMI adjusted discharge by 1.0% below FY14 budget.<br>• Continue to improve labor efficiency as measured by total labor costs as a percent of net revenue.<br>• Meet or exceed budget expectations by 0.5% of net revenue.<br>• Implement supply chain team initiatives to reduce supply costs by $3 million. |
| Continue to Grow Clinical Services | • Expand outreach efforts and grow referrals from targeted regions by 5% over 2 year trend line.<br>• Establish 3 to 4 payer contracts in outlying states that bring new business to the health system.<br>• Establish affiliation relationships with 3 additional referring hospitals. |
| Improve Provider Productivity | • Increase UUMG professional collections by 4% over FY13 baseline.<br>• Increase the number of arrived appointments by 3%. |
| Improve Health Plan Patient Steerage, Member Growth and MLR | • Increase services to the University Health System by 5% via initiatives such as establishing a University-Centric network of providers for hospitals and clinics employees.<br>• Implement ACO principles consistent with managing risk via initiatives such as a shared savings model with the community clinics:<br>  ◦ Medical loss ratio for Healthy U = 94%<br>  ◦ Medical loss ratio for Hospitals and Clinics = 87%<br>• Increase lives and market share by 6.5% via initiatives such as expanding TPA services. |

Hospitals & Clinics | University of Utah Medical Group

UNIVERSITY OF UTAH HEALTH CARE

# OUR LEADERS PRIORITIZE
# AND SUPPORT IMPORTANT WORK

To focus our work, we started with the FY14 Operational Strategy. Over 250 leaders from University of Utah Medical Group, School of Medicine, and Hospitals and Clinics, spent several months identifying the key improvements the organization must make to be successful. The output of this process is our annual Operational Strategy that serves as our annual Value Plan to guide us in our pursuit of exceptional value. These initiatives were prioritized, well sponsored, and well resourced. The results of these efforts are specifically documented in this report.

## 343   The number of Value Summaries completed in FY14

# PEOPLE DRIVE IMPROVEMENT
# AND ARE VALUED FOR WORK

To help deepen this cultural journey, we continued to expand the usage of VALUE SUMMARIES. This tool acted as a common framework and associated document of departmental engagement in improving value. Every manager documented a significant value improvement effort using this easy to share tool. The value summaries will become an increasingly important aspect of our Value Management System to help ensure we stay focused on the patient experience, provide continuity in our services, and become leaders in performance improvement.

# VALUESUMMARY

Management Approval Date: For Office Use Only     Version Date: _____     Version #: _____

| Title | | Sponsor | | Value Officer | |
|---|---|---|---|---|---|
| Team | | | | Team Lead(s) | |
| Scope | | | | MOC? ▼ | Resident on team? ▼ |

## 1 | DEFINE AND MONITOR

| Improvement Category & Measurement Description | | Baseline | Goal | Qtr 1 ▼ | Qtr 2 | Qtr 3 | Qtr 4 |
|---|---|---|---|---|---|---|---|
| Quality | ▼ | | | | | | |
| Service | ▼ | | | | | | |
| Cost | ▼ | | | | | | |
| Audit | ▼ ▼ | | | | | | |

## 2 | PROBLEM & GOAL STATEMENTS

SM-RT PROBLEMS: Specific | Measurable | Relevant | Time-bound

SMART GOALS: Specific | Measurable | Achievable | Relevant | Time-bound

## 5 | IMPACT

## 3 | ANALYSIS & INVESTIGATION

## 4 | IMPROVEMENT DESIGN & IMPLEMENTATION

Implementation Start Date:          Implementation Completion Date:

version 09/2014

# EXCEPTIONAL VALUE DASHBOARD

To promote focus and alignment, we created the EXCEPTIONAL VALUE DASHBOARD that reports each unit's progress in four dimensions: EPE, quality, labor efficiency, and departmental engagement. This allows each unit to see how their work directly impacts the overall Operational Strategy (e.g. annual Value Plan) for the system. This report is visible across the organization. It provides every team with visible markers of success and opportunity based on clear expectations and feedback.

This dashboard is the basis for our quarterly EXCEPTIONAL VALUE recognition. Each quarter, units meeting at least two patient care value goals are recognized for their contributions to Exceptional Value. Once a quarter, our advisory board, executive physician, and hospital leaders visit units to thank them for their contributions to improved value.

## Exceptional Value Performance Dashboard FY14

| Leader View | EPE | | | | Efficiency | | | | Quality | | | | | | | | Innovation Engagement | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Percentile Rank | Qtr-to-Date - Sep '14 | | | | FYTD - Sep '14 | | | | 4 Mth Lag - Jun '14 | | | | FYTD - Sep '14 | | | | FYTD | | |
| | % Ranking | | | | Labor / Stat | | | | Harm | | | | Access | | | | Projects | | |
| | Orgs | | | % | Orgs | | | % | Orgs | | | % | Orgs | | | % | Orgs | % Act | % Comp |
| Total: | 95 | 33 | 62 | 35% | 663 | 373 | 290 | 56% | 14 | 10 | 4 | 71% | 145 | 49 | 96 | 34% | – | – | – |

# RECOGNIZING EXCEPTIONAL VALUE

**Reward and Recognition**

60

16

18

13

8

40
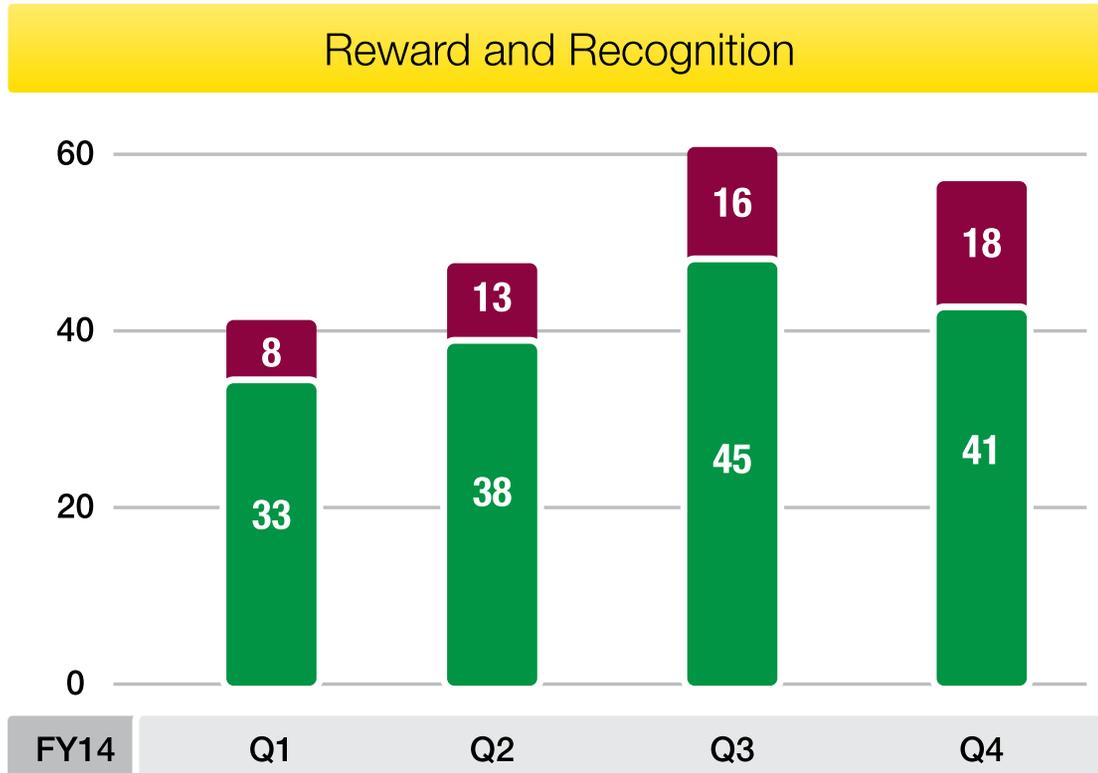
**EPE Only**

**2 or More Measures**

45

41

**Number of clinics at goal for recognition**

38

20

33

0

FY14 | Q1 | Q2 | Q3 | Q4

# SYSTEM APPROACH TO MANAGEMENT

**Training Leaders and Staff**

We have continued our commitment to learning value principles. This year we have expanded the number of physicians, leaders, and staff trained in value improvement skills. Given the complexity of training so many people, we have used both internal resources (Value Engineering), and external resources (University of Utah David Eccles School of Business and DNV) to provide a broad base of educational experiences.

Through our training efforts and the daily improvement efforts of our various physician and clinical/operational teams, we have implemented hundreds of improvement initiatives in FY14. These efforts have focused on our three goals and many of them have been documented and tracked through our value summaries. These value summaries provide an opportunity for all of us to learn from each other and continue our emphasis of being a learning organization.

**A System Approach to Management**

At the same time, University of Utah Health Care changed our accreditation organization to DNV. DNV has embraced ISO (International Standards Organization) as a framework to improve system consistency in performance. This framework focuses on six key areas, which undermine standardization of work. At University of Utah Health Care, we call this framework, "Value Management Work." Value Management Work helps identify key barriers to consistent performance.

1. **DOCUMENT** the work – do we have clear, consistent, written guidelines for how we work?

2. Defined **RECORD** – is there one place where we can document the work we have done?

3. Do we consistently **VERIFY** our processes, identifying both the conforming and non-conforming efforts that happen daily?

4. Once we have identified non-conforming work, do we analyze the **NON-CONFORMITIES** so that we fix the right problems?

5. **CORRECT or PREVENT** – correcting the non-conformities or preventing potential non-conformities, which then leads us to improvement and a new standard work, and starting the process again.

1 **DOCUMENT**
What we do

2 **RECORD**
What we did

3 **VERIFY**
How well we do it

4 **NON CONFORMITY**
What didn't work

5 **CORRECT OR PREVENT**
The fix

# AN EFFECTIVE AND EFFICIENT PROCESS

The organization has created an innovative analytical tool called Value Driven Outcomes (VDO), which is the core resource to actively redesign the way we deliver clinical services. VDO provides clinical teams with accessible and actionable cost of care integrated with clinical outcomes, highlighting variation, and prioritizing areas of greatest impact.

In FY14, we investigated the accuracy and actionability of VDO, by comparing it to the nationally recognized model used by Dr. Robert Kaplan from Harvard Business School—Time Driven Activity Based Costing (TDABC). This fascinating investigation yielded an even more informed confidence with our VDO data and process, along with insight into the appropriate targeted use of TDABC.

**University of Utah Health Care has the opportunity to really be one of the national leaders in implementing this value based health care delivery approach.**

*—Robert Kaplan, Ph.D*
*Harvard Business School*

# WE ARE ALWAYS IMPROVING VALUE

**Measuring Success**

How will we know that we are successful in becoming a leading academic medical center in FY15?

To measure our success, we regularly ask ourselves a number of questions.

- Are our physicians considered to be the preeminent leaders in their respective fields and are they leading healthcare transformation?

- Are we making it easier for patients to come to us for their care by providing quick and easy access with prompt and complete communication? Are we providing them with measurable and sustainable safe, effective, efficient, and patient-centered services?

- Are we considered to be a vital partner of our payers, employers, and regional healthcare providers by providing innovative clinical care and cost effective services with the highest quality and outcomes?

- Are our trainees being adequately trained to be tomorrow's healthcare leaders?

- Are we leveraging the collective strengths of our campus community (both health sciences campus and abroad) to help us meet these aspirations?

To the extent we can answer these questions in the affirmative; we know we are well into our journey to become the leading academic medical center in the nation. When we are uncomfortable with our answers, we know where we need to improve to truly deliver exceptional value to our patients, payers, and employees.

# EXCEPTIONAL PATIENT EXPERIENCE

# IMPROVING PATIENT ACCESS

How do we make it easier for our patients to come here? A seemingly simple question—but improving access has required both increased coordination and local innovation. In FY14, University of Utah Health Care increased new patient visits by 12%, resulting in an increase of 135,000 new patient visits. Despite this success, the demand for our services continues to exceed supply. We did not achieve our targets of reducing new patient schedule lag by 15%, or reaching the 80th percentile on our satisfaction survey question "Ease of scheduling my appointment".

So what did we achieve?

As a system:
  • We coordinated expertise on template management through our Integrated Business Operations Committee.
  • We established standards and measures of access performance across the system.
  • We maximized our EPIC scheduling system through standard training for all staff.

And locally we saw significant innovation:
  • Extending and expanding hours of operation to include evenings and weekends.
  • Same-day scheduling in our Dermatology Clinics.
  • Innovative use of Advance Practice Clinicians to expand access and improve physician efficiency.
  • Redesign of ENT templates which generated two New Patient Visit slots in a daily clinic schedule.

| | All Patients | New Patients |
|---|---|---|
| FY11 | 27 | 18 |
| FY12 | 38 | 27 |
| FY13 | 50 | 31 |
| Q1FY14 | 52 | 32 |
| Q2FY14 | 61 | 32 |
| Q3FY14 | 64 | 39 |
| Q4FY14 | 64 | 37 |

**Ease of Scheduling—National Rank**

National Percentile Rank   ■ All Patients   ■ New Patients   — Linear (All Patients)
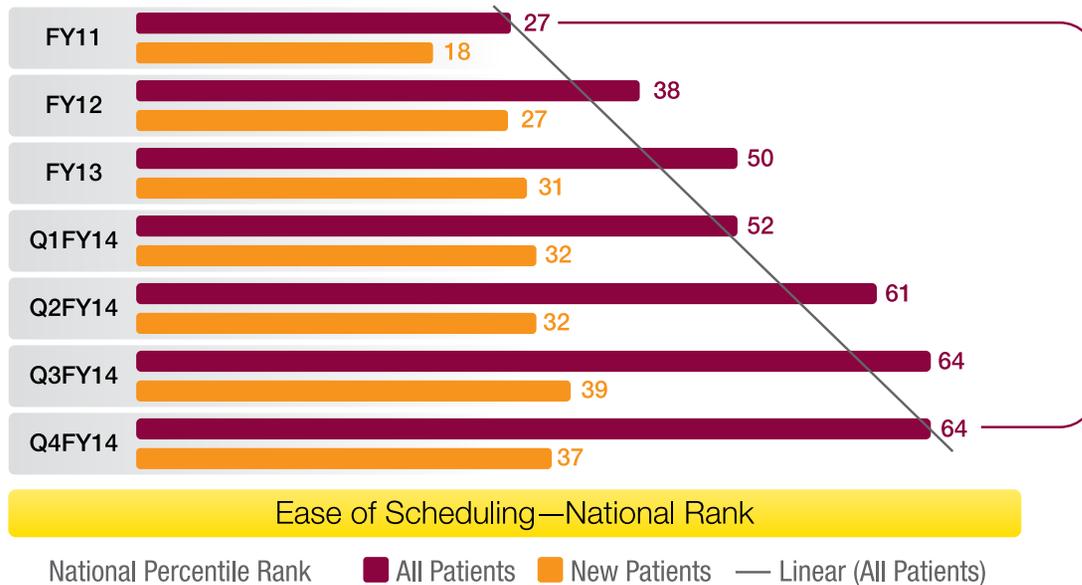
# IMPROVE OVERALL AMBULATORY PATIENT SATISFACTION

In FY14, the organization focused not only on improving system performance, but in reducing variation across the system.

## System National Rank—Overall Score

| | |
|---|---|
| FY11 | #29 |
| FY12 | #53 |
| FY13 | #71 |
| FY14 | #75 |

0    25    50    75    100
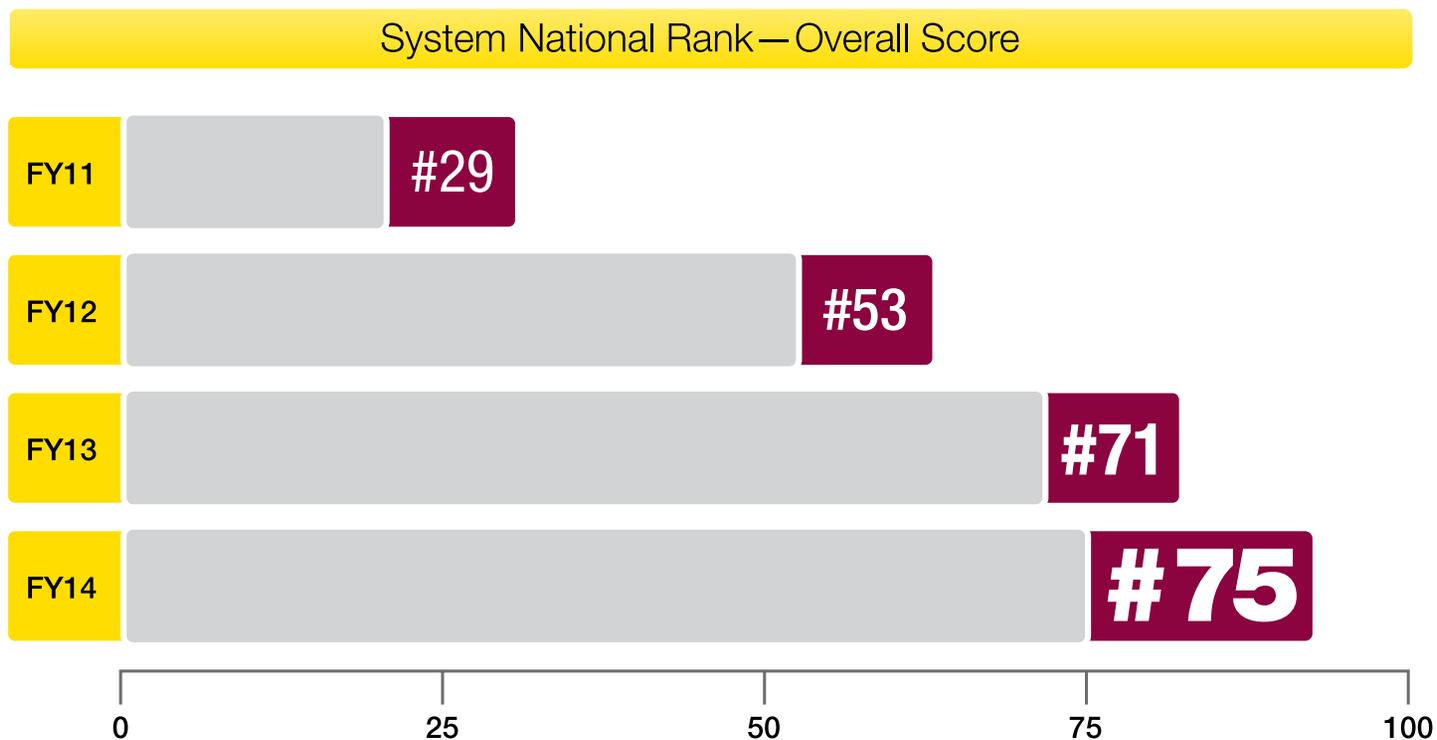
**This year, 90% of clinics performed above the 70th percentile nationally for at least one quarter.**

# IMPROVE HCAHPS PERFORMANCE

HCAHPS is a 27-question survey of hospital patients. This survey was developed by the Centers of Medicare and Medicaid Services (CMS) to allow comparative information about healthcare experiences across all hospitals.

HCAHPS performance is publically reported on CMS's Hospital Compare website, is calculated to determine reimbursement in Value Based Purchasing, and is a significant measure in the UHC (University Health System Consortium) Quality Ranking.

In FY14, the organization focused on improving performance in three areas: Nurse Communication, Physician Communication, and Pain Management. The goal was to improve to at least the 50th percentile for one of four quarters for these historically lower performing questions.



**58** RN Communication

**49** Pain Management

**44** MD Communication

GOAL

FY13 — Q1, Q2, Q3, Q4
FY14 — Q1, Q2, Q3, Q4
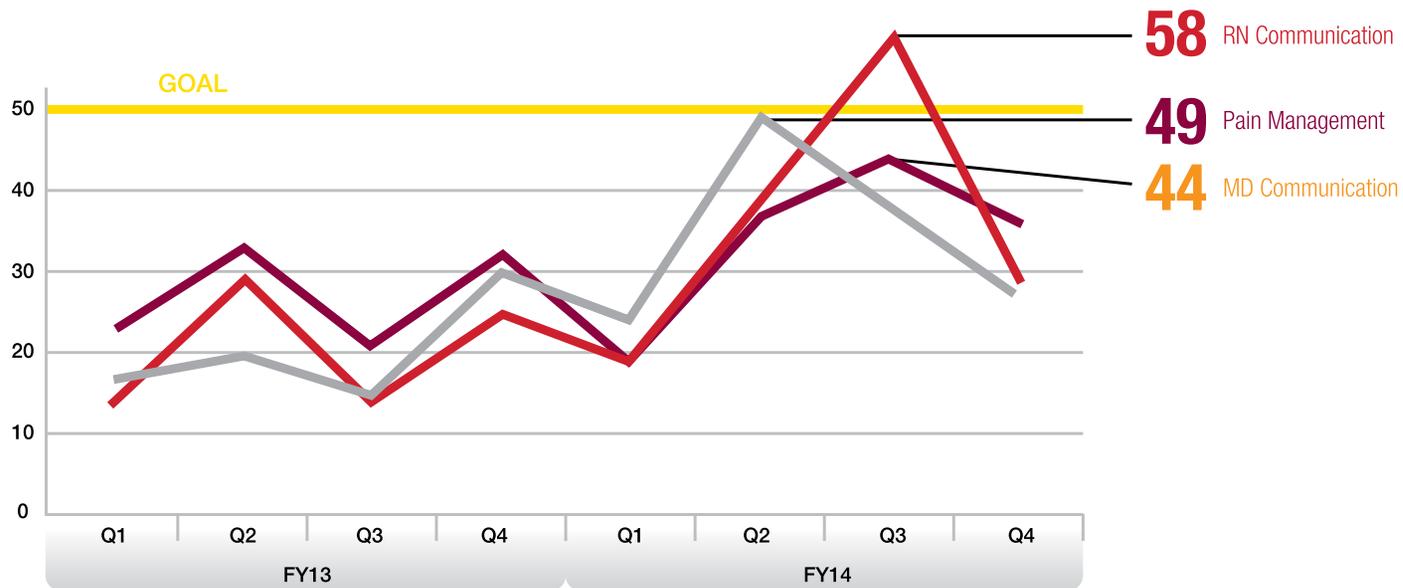
# CASE STUDY: Using Lean/ISO Principles to Improve HCAHPS Performance in Nursing

**Bedside Shift Report—Communication as a Process**

In FY14, inpatient nurses adopted a process approach to communication. Being a patient in the hospital is hard, and one of the biggest complaints is communication. A common concern for patients comes from not knowing the plan of care. UUHC nursing took this concern seriously, and their solution was radical—**use a process approach to communication**.

After a small pilot on MNBC and OBGY units, all inpatient nurses adopted a standardized approach to bedside report. At 7:00 and 21:00, nurses would review care, medications, pain management, and physically assess patients at the bedside. Patients were encouraged to include their families in these assessments. The results were impressive!

**When patients consistently had bedside report during their admission, they not only found the nurses to be better communicators, but many other aspects of satisfaction improved as well.**

In order to implement bedside report consistently:
- All RNs attended a consistent education that included simulation training.
- HCAs changed their shift start time.
- Charge nurses changed the patient assignment process.
- Managers worked closely with the team to coach, respond to barriers, and continually audit the process.

**1** DOCUMENT
What we do

Process
Procedures
Guidelines
Policy

**2** RECORD
What we did

Assess Patients and Chart Activity

**3** VERIFY
How well
we do it

ANALYZE

**4** NON CONFORMITY
What didn't work

REVISE

**5** CORRECT OR PREVENT
The fix

THE FIX
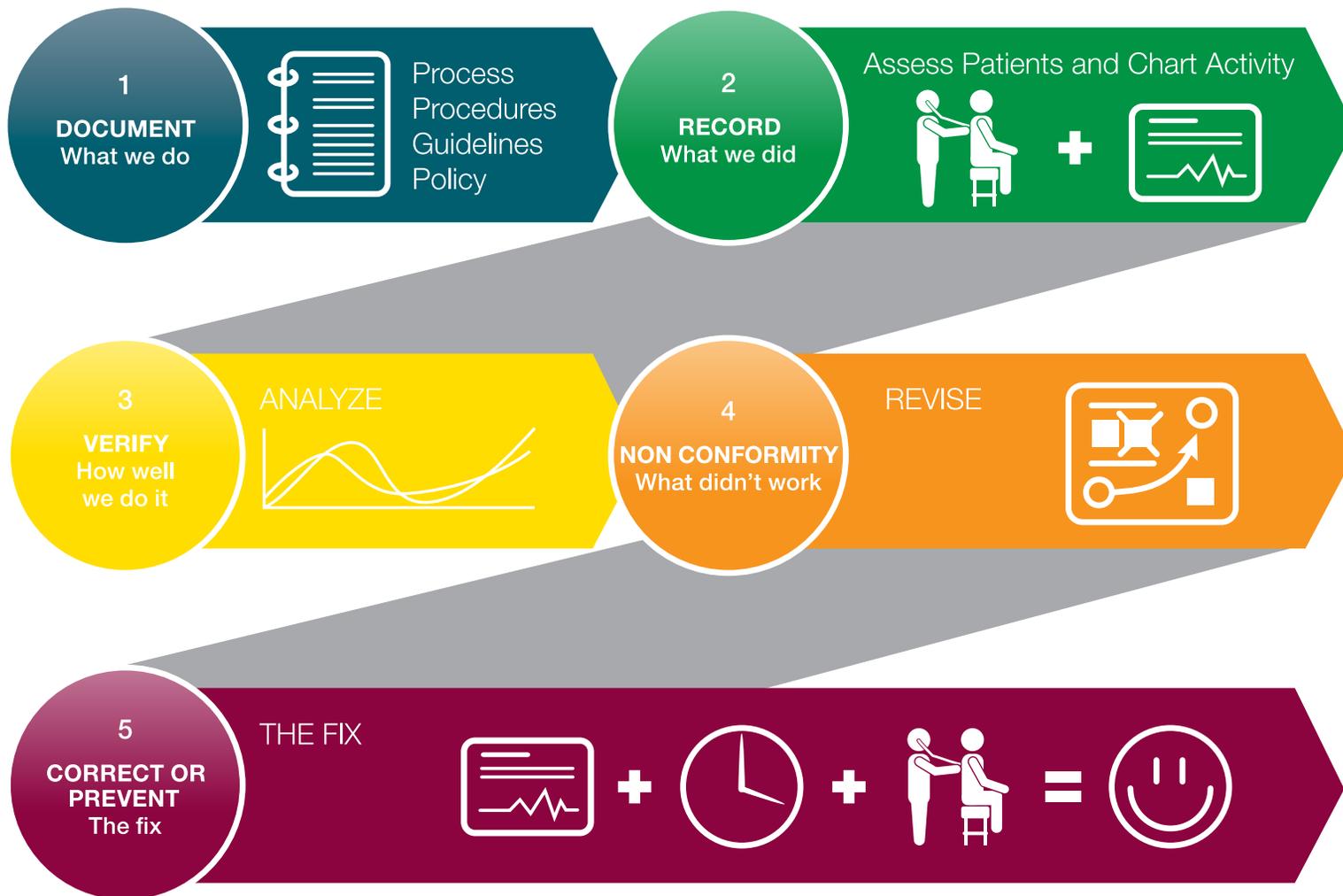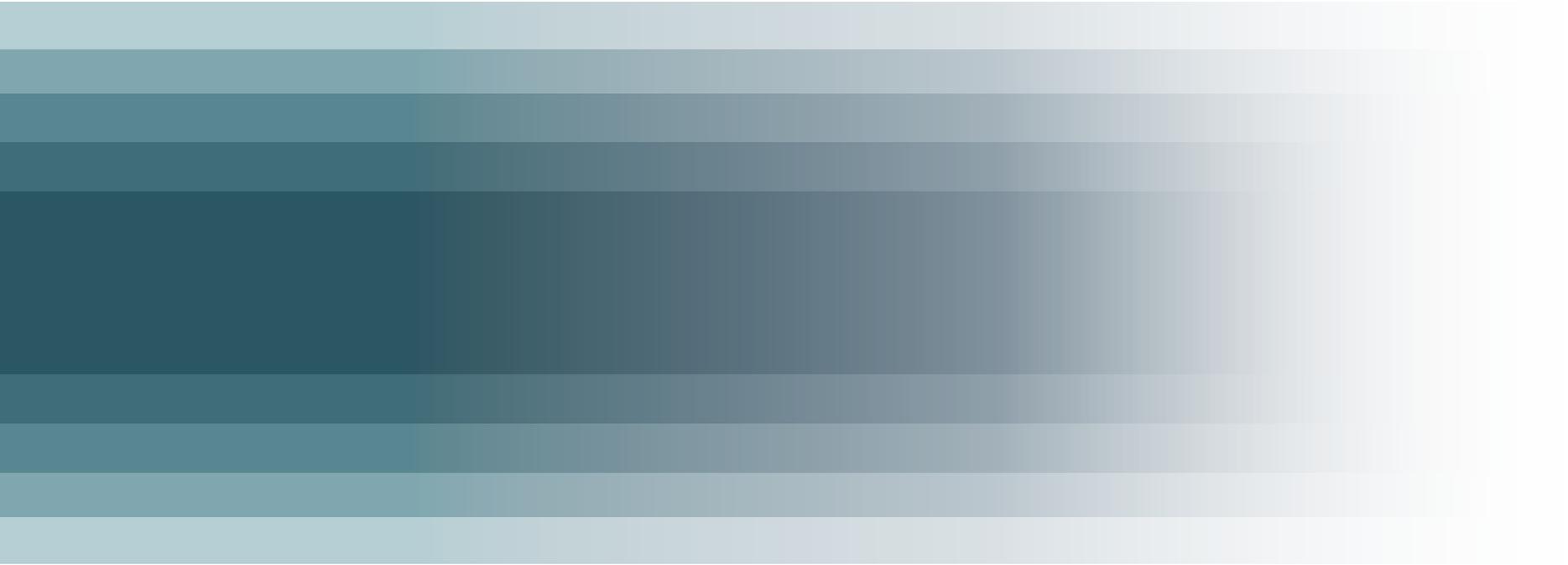
QUALITY

# QUALITY AND SAFETY

## Develop Physician Quality Reporting System (PQRS) Infastructure

| JUL | AUG | SEP | OCT | NOV | DEC | JAN | FEB |
|-----|-----|-----|-----|-----|-----|-----|-----|

Identify registry partner and process          Project kickoff          Final submission successful

After making the decision to participate with PQRS this year, the barrier was to find a quick and effective data submission solution. UUMG and UUHC joined together with the goal to submit PQRS data in the easiest and most effective manner in a short timeline. For this year, the most streamlined solution was to identify a local registry partner. Not only did the team submit the data in a very short timeline, they partnered with the registry to effectively avoid any penalty and actually gained a small premium payment for the system.

# IMPROVING PATIENT SAFETY

Quality and safety are at the core of our organization's mission, vision, and values. Our commitment to improve patient outcomes is demonstrated by every patient care professional. In FY14, the organization made tremendous efforts to improve patient outcomes, improve our systems of care, and the infrastructure that supports patient decision-making. The result is fewer infections, more accurate clinical documentation, redesigned care pathways and decision support, improved value for patients, and most importantly, safer patient care.

**How We Got Better**
Hospital Onset—Health Care Associated C. *difficile*
- Multidisciplinary team meetings at HCH
- C. *difficile* patient education revised
- Focus on environmental cleaning
- Enhanced isolation precautions—Contact Plus

## C-Diff Hospital Rate Improvement

| | | |
|---|---|---|
| | | 1.25 |
| | | 1.12 |
| | | 1.00 |

Q1    Q2    Q3    Q4

FY14

Target: <1.0        ● Target   ● Actual
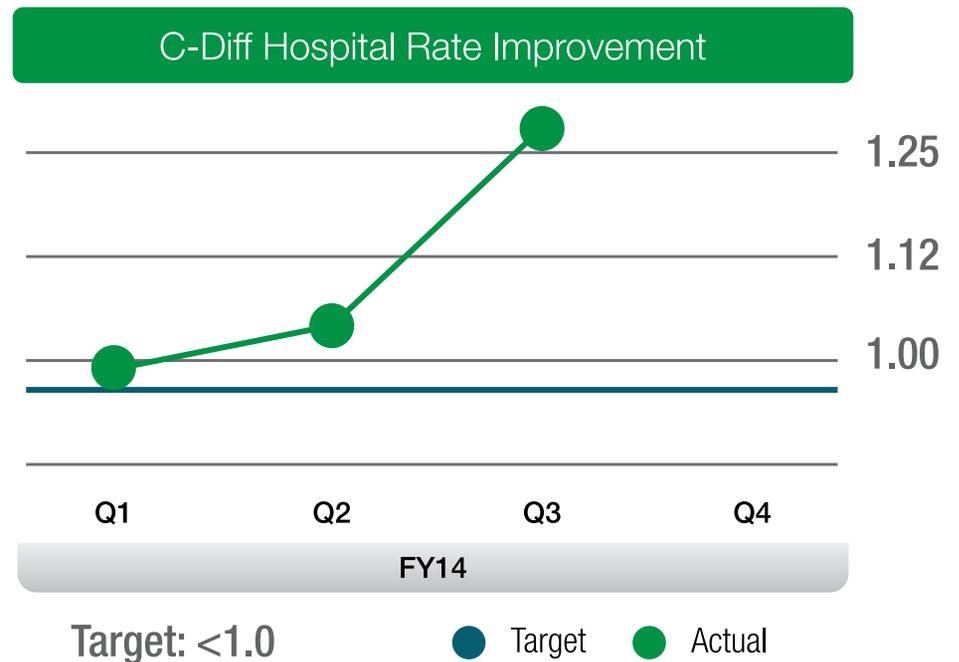
## ICU CAUTI Hospital Rate Improvement

Standard Infection Ratio (SIR)



3
2
1
0

Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun

**FY14**

0.3
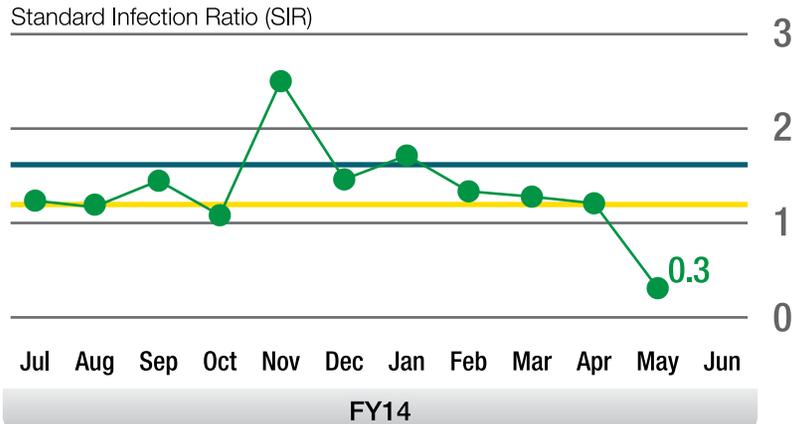
**Target: 1.2**    ⬤ Target    ⬤ FY13 SIR    ⬤ Actual

## ICU CLABSI Hospital Rate Improvement

Standard Infection Ratio (SIR)



2
1.5
1
0.5
0

Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun

**FY14**

0.5
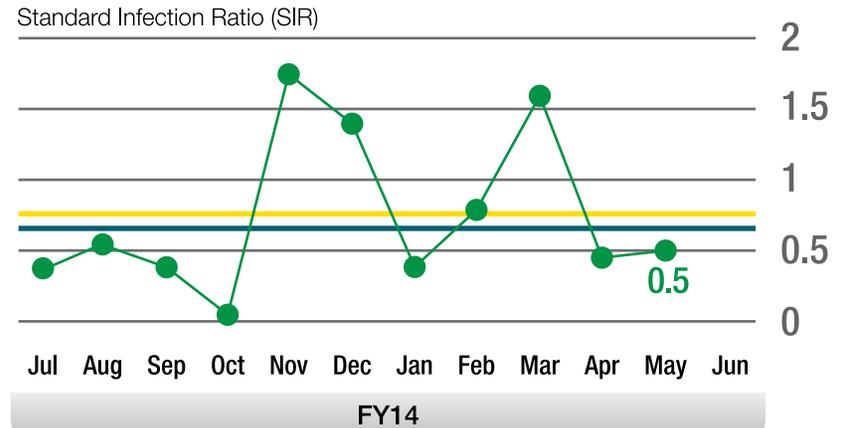
**Target: 0.7**    ⬤ Target    ⬤ FY13 SIR    ⬤ Actual

### How We Got Better

CAUTI Prevention: Partner Units, all ICUs, Emergency, Operating Rooms, and Labor and Delivery.
Accomplishments include:
- Audit of practice June 2013 and December 2013.
- Best practice education September 2013 – nursing, transporters, radiology, physical therapy.
- Standardized indications for insertion and continuation of indwelling urinary catheter.
- Daily assessment during rounds all ICUs.
- Investigate all CAUTI using mini-root cause analysis method.
- Create standard checklist for urinary catheter insertion and maintenance.
- Locate checklist in central location (Mosby's).

### How We Got Better

CLABSI Prevention—BURN July 2013 – December 2013, information dissemination to all ICUs.
- Standardized indications for insertion and continuation of central venous catheters.
- Standardized insertion by trained personnel.
- Standardized dressing change practice.
- Introduced alcohol impregnated port protectors.
- Evaluation of new securement device to begin Fall 2014 with hope to standardize dressing change kit for organization wide use.
- IV Standard Summation recommendations for best practices.

CLABSI Prevention—Huntsman Bone Marrow Transplant
- Evaluation of practice, change made to remove extra line extension.
- Reinforcement of best practice.
- Poster presentation at local research conference.
- Zero CLABSI April – June 2014.

# ACHIEVE 100% CORE MEASURE COMPLIANCE

Core Measures were derived largely from a set of quality indicators defined by CMS (Centers for Medicare and Medicaid Services) over a decade ago. Core measures help hospitals improve the quality of patient care by focusing on the actual results of care.

Core Measure performance is publically reported on CMS's Hospital Compare website, is calculated to determine reimbursement in Value Based Purchasing, and is a significant measure in the UHC (University Health System Consortium) Quality Ranking.

## Three Month Rolling Average—All Departments

| Core Measure | Sep - Nov | Oct - Dec | Nov - Jan | Dec - Feb | Jan - Mar | Feb - Apr | Apr 2014 (Rate) | Fiscal YTD 2014 | Avg Monthly Patient Count |
|---|---|---|---|---|---|---|---|---|---|
| AMI Composite | 100% | 100% | 100% | 100% | 100% | | | 100% | 24 |
| HF Composite | | | | 100% | 100% | 100% | 100% | | 32 |
| IMM Composite | | | | | | | | | 71 |
| OP Composite | | | | | | | | | 45 |
| PN Composite | 100% | 100% | | | | | 100% | | 14 |
| SCIP Composite | | | | | | | | | 59 |
| STK Composite | | | | | | | 100% | | 14 |
| VTE Composite | | | | | | | | | 73 |

## UHC Effectiveness Domain—Predicted Scores and Ratings

| | Apr - Aug | Apr - Sep | Apr - Oct | Apr - Nov | Apr - Dec | Apr - Jan | Apr - Feb | Apr - Mar |
|---|---|---|---|---|---|---|---|---|
| Rating | 54 | 56 | 57 | 26 | 30 | 20 | 51 | 31 |
| Domain Score | 87% | 87% | 87% | 86% | 86% | 86% | 84% | 84% |

■ <UHC 50th %ile    ■ b/w UHC 50th and 75th %ile    ■ b/w UHC 75th and 90th %ile    ■ >UHC 90th %ile

# IMPROVE TIMELY REPORTING

Based on feedback from clinicians, the Quality Information Team took on the challenge to decrease the lag between delivery of care and reporting of quality data. By embracing standard work and reducing all duplication and delays, the team was able to deliver monthly core measure reports in the following areas:

- **Provider/department**
- **Unit**
- **Fall out reason—general**

Process – as abstractors are in chart, capturing data real time, reducing rework for nurse managers and providers to pull the fall outs. Embracing standard work to download information from UHC into our own business intelligence systems to automate the reporting same day.

Core Measure monthly reports created?
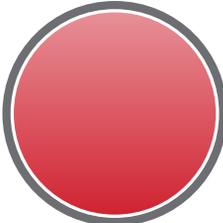
X
YES        NO

# SUCCESSFUL IMPLEMENTATION OF EPIC ONE CHART

In FY14, the organization achieved the long-term vision of having a single electronic medical record throughout University of Utah Health Care. This breakthrough eliminates inefficiencies and reduces quality errors by connecting our health care system in ways never before possible. One Chart launches us into a new environment of inter-connectedness, accuracy, and transparency, arming us with tools and data to tackle today's and tomorrow's challenges.

On May 11, 2014, **on time and within the $46 million budget**, One Chart replaced our inpatient, surgical, anesthesia, radiology, cardiology, pharmacy, and other systems with a unified Epic foundation—which was already used for ambulatory and business departments.

Switching electronic medical record systems isn't easy for any organization, but doing this on a massive scale was a difficult undertaking. This was particularly challenging due to the wide range of "legacy" systems we were changing from one system to another, all at the same time!

## Optimize Epic Care

| **6,414** Users Trained | On Time | On Budget $46M |

# MOVING EPIC ONE CHART INTO THE FUTURE

**Lessons Learned**

One Chart implementation required hundreds of clinical, business, and IT team members along with:

- Engaged executive sponsors and extremely committed executive and core steering committees.
- The vision of "getting it right the first time." Early emphasis was placed on program management and governance.
- We leveraged lessons learned from previous go-lives—Epic for Business and Ambulatory Community Based and Specialty Clinics.

In the months leading up to our Mother's Day go-live, we prepared in two forms:  extensively testing our IT configurations and training every care provider and employee in all areas throughout our environment.

## Testing and Training Facts

- **More than six months of software testing**

- **2,164 providers trained**

- **4,250 other staff members trained**

- **More than 1,700 training classes held**

- **More than 7,000 classroom training hours held**

# SUPPORTING THE CHANGE TO EPIC ONE CHART

**During Go-live, the One Chart Command Center was the Heart and Brains of Operations**
- Over 150 staff packed a large room in the Health Sciences Education Building (HSEB) coordinating support resources and resolving issues.
- 1,000 GoLiS (Go Live Specialists) were scheduled for the first three weeks post go-live to provide twenty-four-hour at-the-elbow support for our users; helping the staff to adapt to the new workflows and establish efficient habits early.
- Epic-experienced clinicians from other sites were contracted to compliment the Epic vendor staff and our own specially trained subject matter experts, to create a powerful GoLiS structure to 'make the saves' and round out the One Chart team.
- In addition, a Provider Support Center was staffed to serve as a resource for providers to drop in and get help with personalization to make them more efficient, get questions answered one-on-one, or pick up a quick tutorial guide.

**Success Stories**
- The Epic vendor completed an independent assessment of hospital charges for the first week of go-live, giving an overall rating of 4.5 out of a possible 5.0.
- Hospital claims are back to a pre-go-live state and professional charges are still being monitored closely, but the outlook is positive.
- The general consensus among new Epic users is summed up in a recent comment from one of our providers, *"With our new EMR, patient records are quickly available, when and where I need it. Paper charts can easily get lost, which is no longer a problem if the Epic system is used consistently."*

"Thanks to forward planning and workflow adjustment by our clinic staff, the phenomenal support provided by the Huntsman "GoLi's" and the dedication of our providers, we were able to transition to Epic with minimal effects on our patients. We are already seeing the early benefits of the transition to One Chart, particularly with respect to chemotherapy prescribing in Beacon, and communication with our patients through MyChart."

*—John Sweetenham, MD, Huntsman Cancer Institute*

The One Chart team created hundreds of reports and dashboards to support real time decision making. In addition, the team updated the Enterprise Data Warehouse structures to accept data from all the new Epic modules as well as map the legacy data. This provides a powerful comprehensive universe of clinical and financial data. In addition, the backend infrastructure was updated to support future Epic growth and provide enhanced downtime and disaster recovery capabilities, including a new Business Continuity Access solution to ensure critical patient data will be available—even if Epic goes down.

# EXCEPTIONAL VALUE INITIATIVE

**The Catalyst for Change**

University of Utah Hospitals and Clinics traditionally receives increases in our payment rates every year from payers like Blue Cross and Medicare, to adjust for inflation and pay increases. In FY13 our traditional level of increase **declined by approximately 2%**. This reflected **approximately $22 million less in revenue** than we would traditionally have expected.

The organizational efforts to be more innovative, redesign our clinical processes, and improve our efficiency are vital strategies to help compensate for this lost revenue. The savings we achieve through exceptional value are the difference between small changes and dramatic impact on our mission.

University of Utah Health Care's Exceptional Value Initiative is committed to increasing value to patients by improving quality and service while reducing cost of care. Looking at outcomes is important, but using a disciplined approach to achieving those outcomes is what allows us to deliver sustained results. Exceptional Value improvements are defined by collaborative teamwork, led by physicians, in the design of care, focusing on process and standardization, and driven by data to identify opportunity and to measure long-term success.

Over 343 departments aligned their efforts to improve the system this year. Using the Value Summary to set specific and measurable goals, analyzing data to define the opportunity, and approaching improvement through process redesign, allowed hundreds of units to contribute to the organizations success.

Of special note, the organization continues to bend the expense curve. In FY14, University of Utah Health Care not only performed below the US healthcare national average, but actually reduced expenses relative to our own performance in FY13.
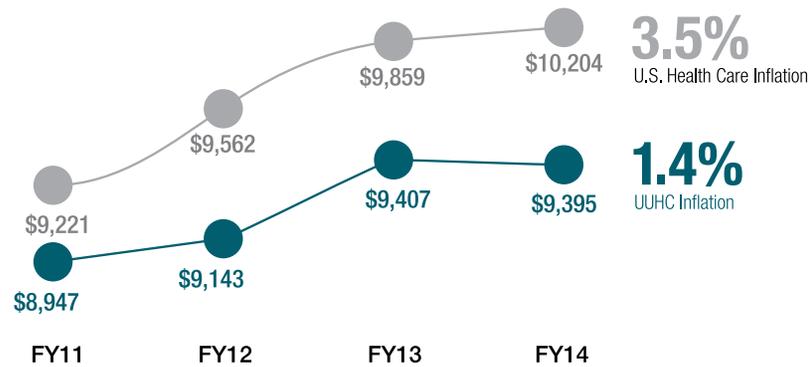
In addition to special improvement, the organization continues to improve the efficiency of our most valuable resource, our workforce. Through careful position review, process redesign and improved efficiency, the organization reduced the percent of total income dedicated to salary, wages, and benefits for the fourth year in a row.

**3.5%**
U.S. Health Care Inflation

$10,204

$9,859

$9,562

$9,221

$9,407

$9,395

**1.4%**
UUHC Inflation

$9,143

$8,947

| FY11 | FY12 | FY13 | FY14 |

**Total Expense per CMI Adj. Discharge**

**47.1%**

**46.7%**

**46.5%**

**45.9%**

| FY11 | FY12 | FY13 | FY14 |
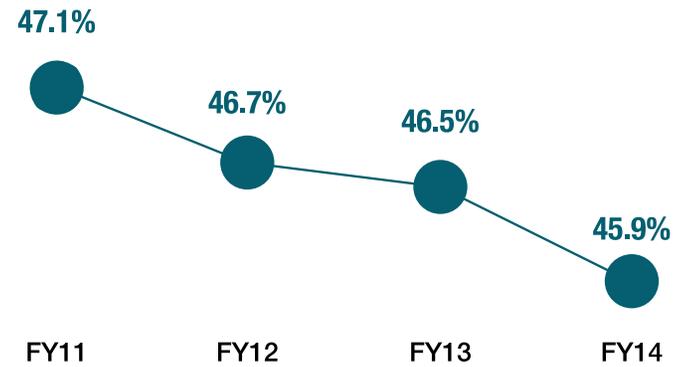
**Salaries, Wages, Benefits as a % of Income**

# VALUE IMPROVEMENT

Additionally, hundreds of clinicians joined expert analysts to focus on specific care redesign. In this section, we will analyze a few of the most impactful.

**As a group, these areas were able to achieve $19.7 Million in realized savings this year.**

- **Clinical Documentation Initiative (CDI)**

- **Harvard Business School Time Driven Activity Based Costing/Value Driven Outcome Collaborative**

- **University Healthcare Partnership Program (UHPP)**

- **Supply Chain Initiative**

- **Pharmacy Initiative**

- **Department Best Practice—Patient Financial Services:  Accounts Receivable Process Redesign**

# IMPROVING VALUE ACROSS THE ORGANIZATION



| | | $ | | $5M | | $10M | | $15M | | $20M |

**FY12** — $18.9M
**FY13** — $15M
**FY14** — $19.7M

Value Improvement

● Pharmacy  ● Supply Chain  ● CDI  ● Care Redesign & Efficiency Gains*
*Includes UHPP and Value Engineering Work
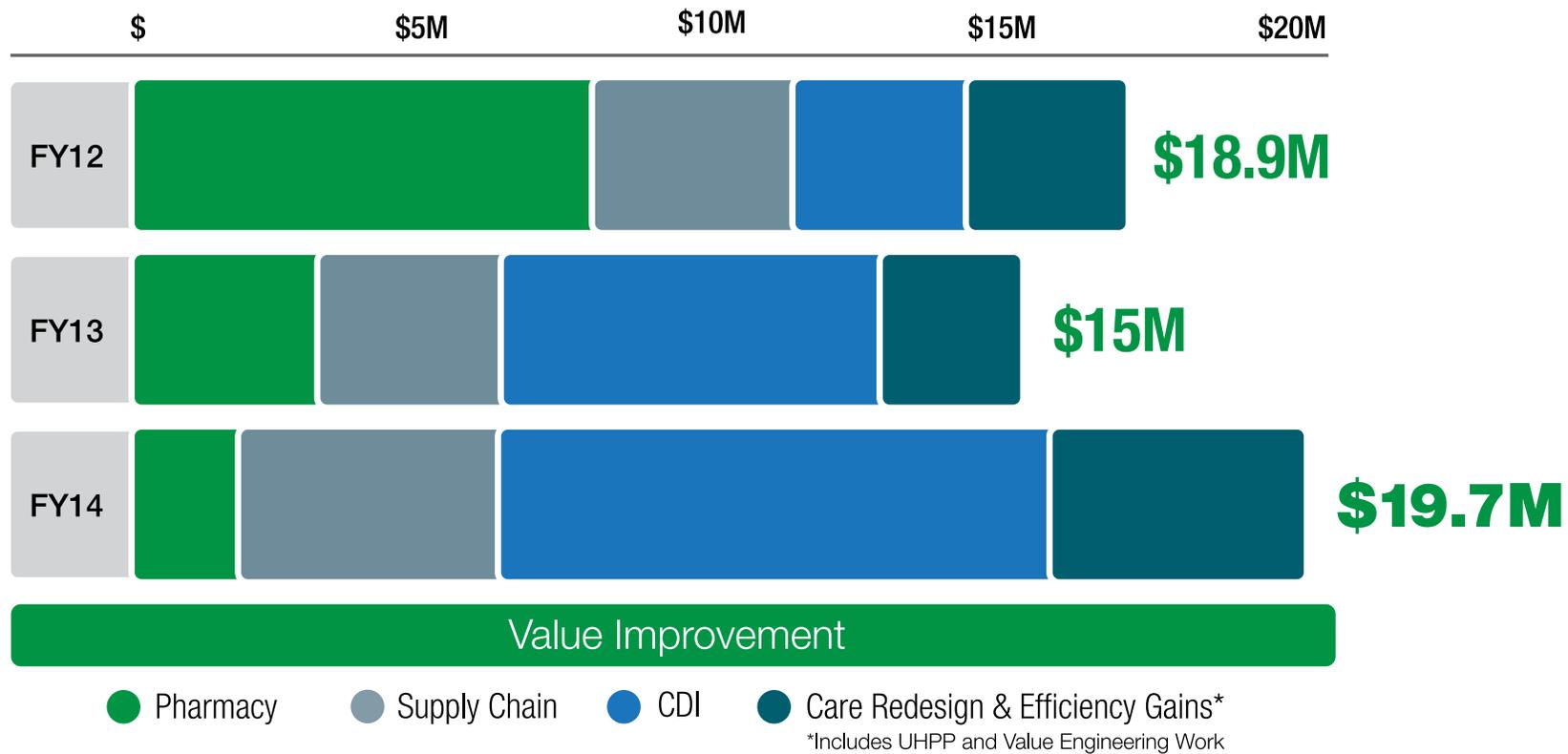
# CLINICAL DOCUMENTATION INITIATIVE

We have provided excellent care for the most complex cases (and simple cases, too) for a long time, but the quality of our documentation has not matched the quality of our care. Gaps in physician documentation and coding lead to gaps in revenue, and neither our cultural norms nor our infrastructure prevented the gaps. This is changing.

Besides capturing the revenue we're due, the Clinical Documentation Improvement Initiative also insures that our public reporting of healthcare performance is accurate.

## Departmental Top Improvers

- **Orthopedics and Neurosurgery:** improved comorbidity capture from UHC 25th percentile to the 75th percentile.

- **Medical Oncology:** improved comorbidity capture from UHC 25th percentile to the 85th percentile.

- **Physical Medicine and Rehab Unit:** improved Case Mix Index 20%.

- **Liver Transplant Group:** (Dr. Kim, Dr. Campsen and Jennifer Smyth Curti)

    - **No deaths in 75 cases.**
      Over the last 3 years, inpatient Mortality Index is 0. Great clinical care.

    - **Expected mortality is 4th highest** amongst Academic Medical Centers.
      0 deaths with expected inpatient mortality of 5.5%.

    - When outcomes are great, competitors often feel you are cherry picking the least sick patients. With great care and documentation, **the team provided great outcomes with even the sickest patients.**

# A HEALTH SYSTEM THAT SAVES MORE THAN LIVES

**CDI leadership, Russell Vinik, MD and Michelle Knuckles, implemented new changes in FY14. Using technology and standardized search processes the team reached unprecedented productivity levels.**

- Increased queries to over **650/month.**

- Over the last year, in part through this documentation effort, expected mortality has increased from **3.3%** to **3.7%** with resultant improvement in mortality Index (Observed/Expected) of **0.75** to **0.64** (currently 7th best in UHC).

- Increased CDI monthly revenue by **$400K** to achieve milestone **$1M/mo.**

- Increased Case Mix Index (CMI) **above 2** (February & May 2014).

- Increased Major Comorbidity and Complication (MCC) capture.



Every 1% increase in MCC capture translates into appoximately $3.5M in annual revenue.

*Rate of MCC Capture*

25% — FY12
30% — FY13
35% — FY14
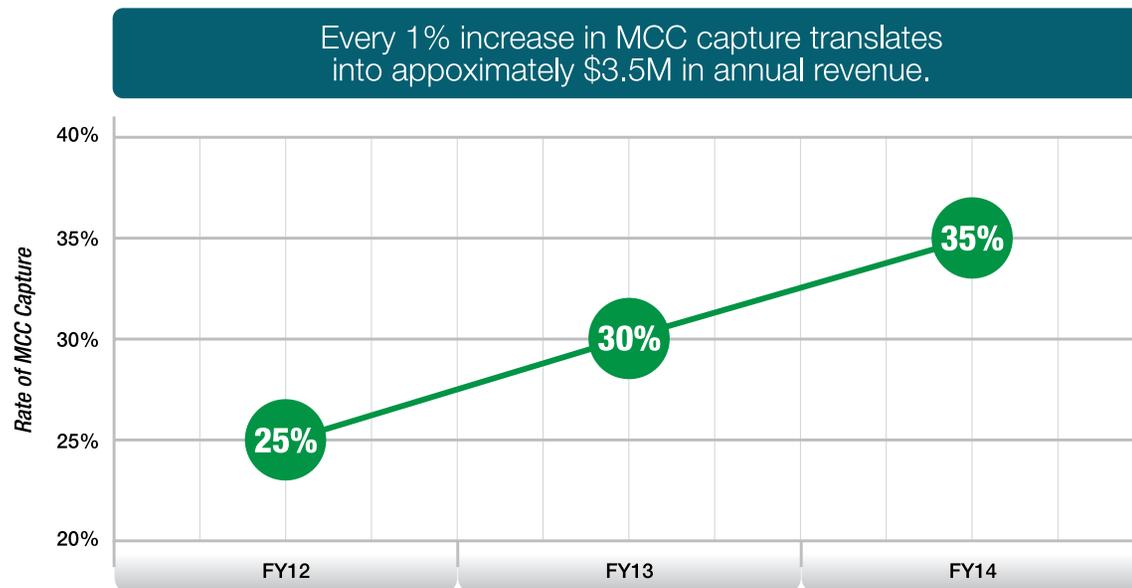
# SOLVING THE COST CRISIS

**University Of Utah Health Care and Harvard Business School Launch a Collaboration to Help Solve the Cost Crisis in America**

Some of the brightest minds from Harvard Business School and University of Utah Health Care have teamed up in an ambitious partnership designed to tackle one of the most important issues of our day—the health care cost crisis in America.

Each organization presented the methodology they've created to capture every single expense associated with a patient's cycle of care. The Harvard Business School team will apply Time Driven Activity Based Costing (TDABC), while the University of Utah Health Care team will use the Value Driven Outcomes (VDO) tool they've developed over the past two years.

*"The goal is not that we get more accurate costs but that the costs are actionable,"* says Bob Kaplan, Ph.D, Marvin Bower Professor of Leadership Development, Emeritus at HBS and the world's leading authority on strategic performance measurement. In addition to achieving the stated objectives for improvement for each project, the goal of applying two different methodologies is to learn from each other. *"We should all be data driven,"* says Kaplan, whose team will write about the results. *"So let's run the experiment in five places and see what we find out."*

**Teams from Harvard Business School and University of Utah Health Care launch a partnership to work on five projects.**

| 1 | The Women's and Children's Service Line evaluated the total costs involved in a normal vaginal delivery (outpatient, inpatient, facility, physician) to create a bundled payment package. |
|---|---|
| **2** | The Departments of Orthopaedics and Neurosurgery evaluated the total costs involved in anterior cervical disc fusion from the decision to perform surgery in the clinic through the follow-up in the clinic (90 days post discharge). |
| **3** | The Radiology Department evaluated the processes and costs to perform an abdomen/pelvis CT imaging study to improve efficiencies in resource utilization and measureable outcomes in CT imaging. |
| **4** | Behavioral Health evaluated the cost (by segmented populations) of the Neurobehavior Medical Home Program to improve the efficiency and effectiveness of the program, which provides primary and psychiatric care for patients with intellectual disabilities and a mental illness. |
| **5** | The Billing Department evaluated the indirect costs of generating a bill for professional and hospital charges from bill creation to final payment adjudication analyzed by payer type, facility, location, and diagnosis. |

# THE UNIVERSITY OF UTAH HEALTH CARE PARTNERS PROGRAM (UHPP)

The University of Utah Health Care Partners Program (UHPP) was introduced in FY11 as a way to share savings from improved value to patients. From the initiation of the UHPP program in FY11 through the end of FY13, total savings in direct costs to the organization have exceeded $4.3 million dollars while maintaining or improving quality outcomes.

Physicians submit proposals identifying physician-led changes that reduce hospital costs. As an incentive, UUHC shares 50% of the realized savings over the first year of the project directly with the responsible School of Medicine department(s) or division(s). This money can then be used to purchase supplies and equipment, fund research projects, provide continuing education, or other program activities.

**In FY14, eight UHPP projects were approved with projected annual savings of $2.95M.**



| Projected Annual Savings | $ | $500,000 | $1M |

UHPP FY14 Approved Projects
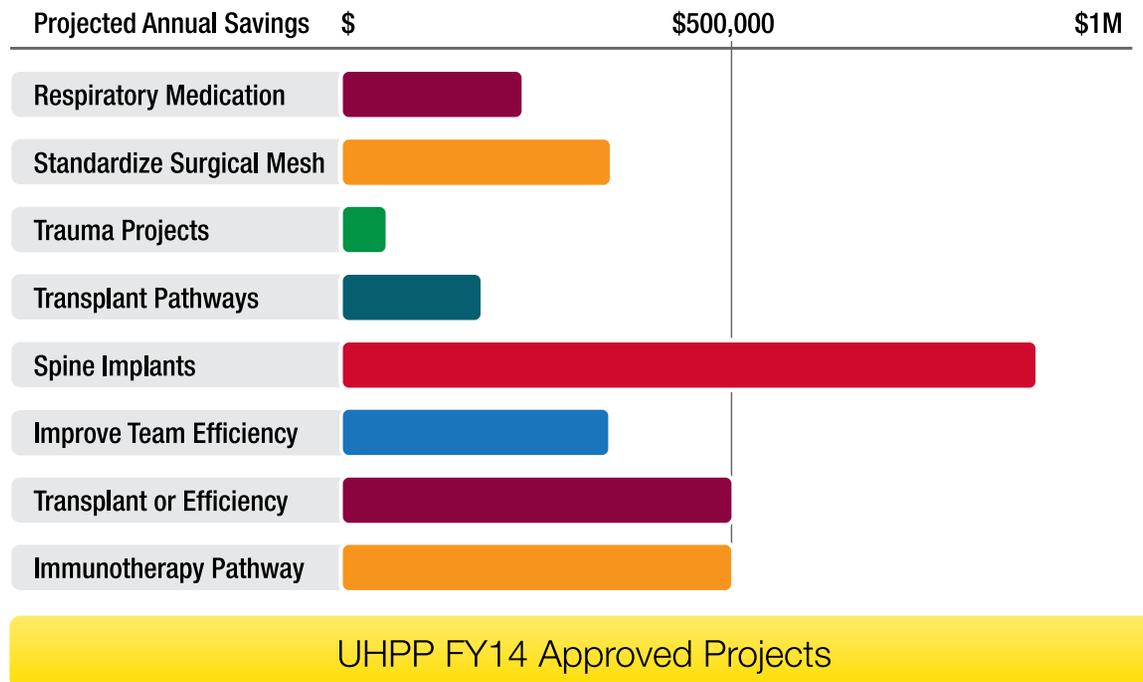
### Respiratory Driving Changes in Product and Practice

Champion:  Boaz Markewitz, MD
Department:  Internal Medicine
Intervention:
- Switch Advair and Symbicort to Dulera.
- Switch Combivent orders to nebulizer.
- Switch Atrovent orders to nebulizer.

**Projected Savings: $247,473**

### Standardizing Surgical Mesh

Champion:  Daniel Vargo, MD
Department:  Surgery
Intervention:
- Standardize to single vendor.

**Projected Savings: $354,580**

### Trauma Care Pathway

Champion:  Ram Nirula, MD
Department:  Surgery
Intervention:
- Eliminate multiple CT head scans for trauma patients with minor brain injury (GCS=14 or 15).
- Removing amylase and lipase lab test from Trauma 1&2 activation standard lab panel.
- Keep first responder C-collars in place on trauma activation patients with minor brain injury (GCS = 15 or 15).

**Projected Savings: $29,459**

### Transplant Surgery Care Pathways – Phase I

Champion:  Jeffrey Campsen, MD
Department:  Surgery
Intervention:
- Reduce non-essential laboratory testing, radiographic testing, and medications, e.g., After literature review, it was realized that there is no benefit to giving the medication Valcyte, which is currently given on post-operative day 1 for liver, pancreas, and kidney transplants, prior to post-operative day 10.

**Projected Savings: $124,019**

### Spinal Implant Initiative

Champion:  Rick Shumway and Bart Adams
Departments:  Neurosurgery, Orthopaedic Surgery
Intervention:
- Standardize 90% of all preferred suppliers for spine implants.
- Reduce spine implant vendors from 15 to 11.

**Projected Savings: $881,718**

### Improving Efficiency and Patient Care through Unit-Based Teams

Champion:  Peter Yarbrough, MD and Nathan Wanner, MD
Department:  Internal Medicine
Intervention:
- Reduce Hospitalist workflow inefficiencies by assigning unit teams according to patient location.
- Decrease length of stay by 0.3 days.
- Reduce readmissions.
- Improve discharge times to earlier in the day.

**Projected Savings: $368,580**

### Transplant Quality Initiative: Efficiency in the Operating Room

Champion:  Robin Kim, MD
Department:  Surgery
Intervention:
- Create an optimal surgical team for transplants of the liver, kidney, pancreas, living donor nephrectomies, and hepatobiliary.
- Simplifying the operative tool sets and supplies.
- Standardize operative steps.

**Projected Savings: $496,502**

### Immunotherapy – Induction and Maintenance Phase II

Champion:  Jeffrey Campsen, MD
Department:  Surgery
Intervention:
- All pancreas and kidney-pancreas (KP) transplants will receive 1 dose of Campath, instead of all pancreas alone or KP patients receiving 4 doses of thymoglobulin.
- Panel reactive antibody (PRA) 0-10% will receive steroid induction instead of kidney transplant patients with a PRA of 1-79% receiving three doses of thymoglobulin.
- ECD/DCD no longer will be an absolute exclusion for a steroid induction group as opposed to the previous standards where the extended criteria (ECD) and donation after cardiac death donors (DCD) automatically received 3 doses of thymoglobulin.

**Projected Savings: $498,745**

# ACHIEVING EXCELLENCE

| | | |
|---|---|---|
| 2010 | | #25 |
| 2011 | | #15 |
| 2012 | | #9 |
| 2013 | | #5 |
| 2014 | | #5 |

**UHC Ranking—Supply Chain**
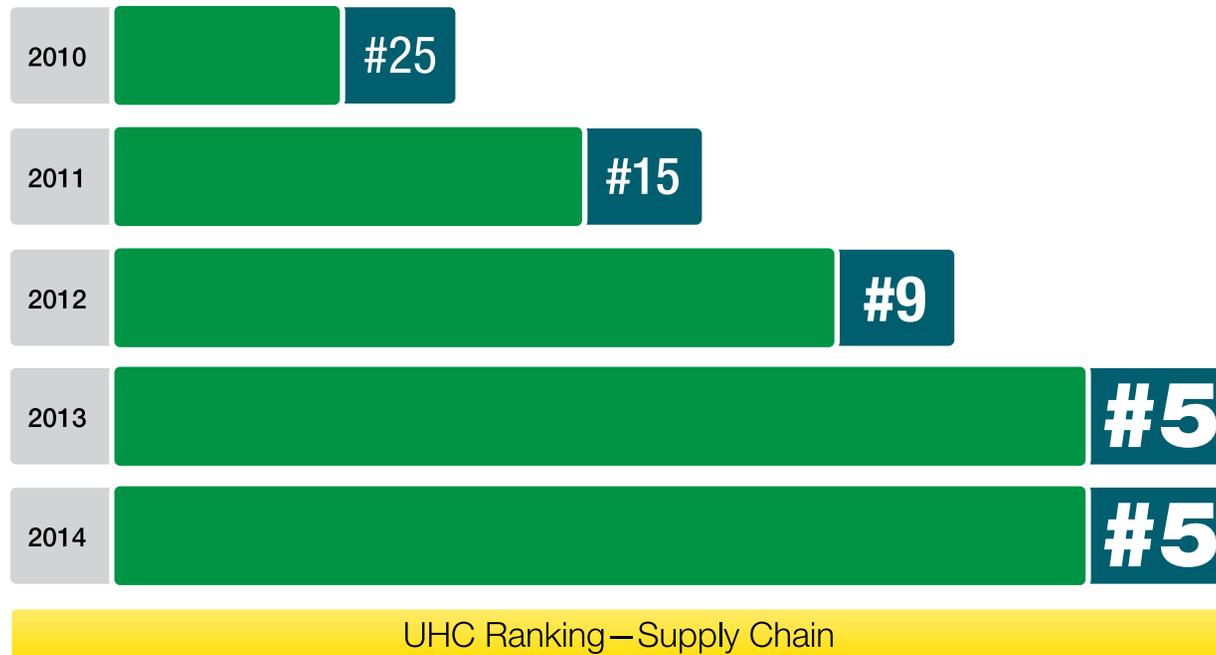
In optimizing the value provided to our patients, the Value Analysis and Purchasing Department focuses on the "Cost" element of the Value Equation. Our most successful strategy for optimizing "Cost" has been (Good Data + Strong Negotiating Strategy + Physician Support).

**By following this approach we have seen year-over-year improvements in the UHC Supply Chain Performance Excellence Rank and are currently ranked #5 among all University HealthSystem Consortium (UHC) hospital systems.**

This equation takes into account 5 supply cost measures and 1 drug cost measure in determining top performers.

# SUPPLY CHAIN ANNUAL SAVINGS

## How We Achieved the #5 Ranking

| | $ | $2M | $4M | $6M | $8M |
|---|---|---|---|---|---|

**FY11** $2.1M

**FY12** $3.9M

**FY13** $5.8M

**FY14** $7.7M

**Legend:**
- Cardiovascular
- Endoscopy
- Imaging
- Neurosurgery
- OR General
- Orthopedics
- Other
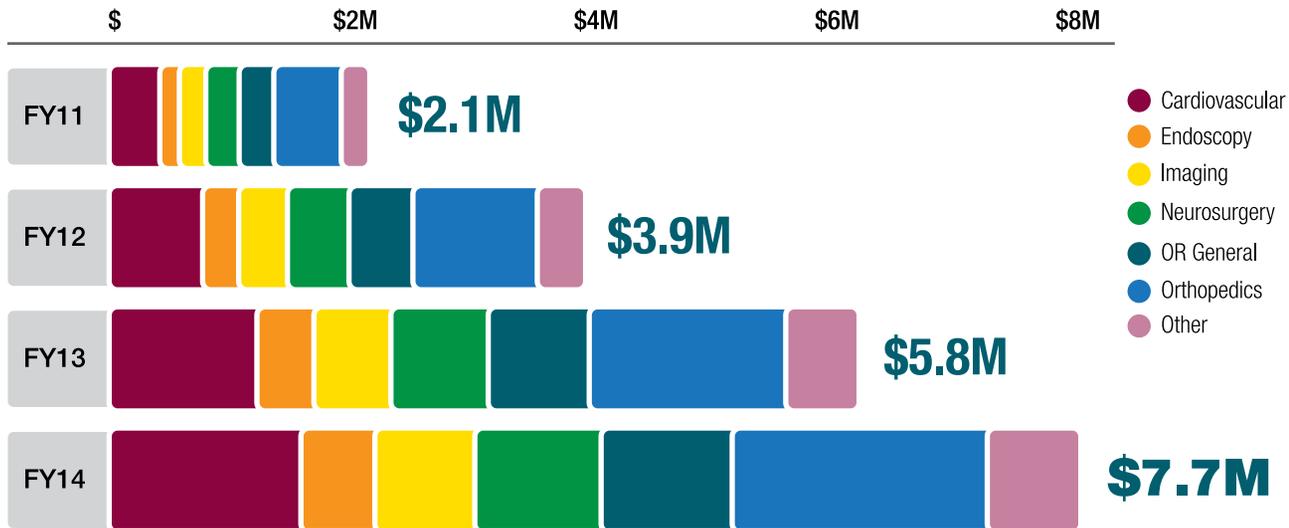
**Standardizing and Sustaining Value**

Physician-led supply savings FY11-FY14

**FY12** $2.9M

**FY13** $3.1M

**FY14** $4.1M
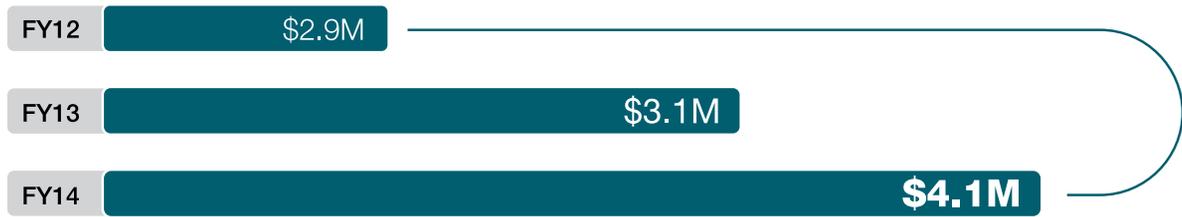
**Supply Chain Annual Savings**

# VALUE ANALYSIS

### Surgical Mesh

Savings Per Case: **$2,850**
Annual Savings: **$360,000**

## Negotiation/Product Conversion

During the fall of 2013, the Department of Value Analysis, along with Dr. Russell Vinik and Joanna Beachy, engaged in a Lean Project with the University School of Business. There was a recent push within UHC to evaluate the cost and quality of abdominal mesh offered by various vendors and so we pursued it. We knew that any effort to switch suppliers would be difficult and would require strong clinical support. We met with Dr. Daniel Vargo as one of our top utilizers of mesh to ensure that the clinical quality of the product remained our top priority. Dr. Vargo acted as intermediary between us and the other general surgeons to ensure their clinical interests were represented. The final value-based decision was to switch to a different supplier resulting in mesh costs less than half of the original cost while maintaining clinical quality.

### Cochlear Implants

Savings Per Case: **$5,150**
Annual Savings: **$515,000**

## Negotiation/Product Selection

As is typical when pricing contracts expire, the vendors are anxious to pass annual price increases our way. This was no different when our contract expired with our primary cochlear implant vendor. After running national price benchmarks, it became apparent that for a program our size, pricing was already too high. We met with Dr. Clough Shelton who is the primary implanter of these devices. We discussed a financial strategy that would align with the clinical needs of our cochlear program. Our strategy with cochlear vs. mesh was much different. A patient typically won't request abdominal mesh from a specific vendor but they often will with cochlear implants. Not wanting to restrict patient selection, we employed an "All Play" strategy with one price point for all vendors. Prices dropped significantly but more with some vendors than others. We have since seen a significant shift in business to suppliers who provided the greatest value. Being able to achieve such great price reductions while keeping the clinical options available was only possible with the great support of Dr. Shelton and the Audiologists.

## Spinal Implants

Savings Per Case: **Varies**
Annual Savings: **$850,000**

## Total Hip

Savings Per Case: **$1,100**
Annual Savings: **$247,000**

## Total Knee

Savings Per Case: **$700**
Annual Savings: **$403,000**

## Negotiation/Partnership Alliance and Vendor Consolidation

University of Utah Health Care and Intermountain Healthcare have worked together successfully for years on an array of medical supply pricing negotiations. Last November was the beginning of our largest and most complex initiative to date – spinal implants. Between the two organizations there were over 30 suppliers providing spine implant products. The strategy was to consolidate suppliers to 10 contracted suppliers as leverage for better pricing. Coordinating with our spine surgeons along with Intermountain's surgeons to decide on the 10 preferred vendors required strong key players on both sides. We engaged Dr. Brodke from Orthopedics and Dr. Dailey from Neurosciences to assume this role. The implants were placed into categories with a set price. Notification was then sent to the vendors. The key element in the success of this approach was our physicians' willingness to walk away from any vendor that did not meet these price points. Most vendors met pricing without much effort, but when one of our largest vendors pushed back on some categories, the strength of our strategy was tested. Although the absence of this supplier would have a significant impact on our physicians' current practice, they fully supported the process and the supplier eventually agreed to pricing. The savings represents a 17% decrease in implant costs.

## Negotiations

While looking at the UHC Performance Measures we noticed that our Orthopedic program was ranked among the top performers in Safety, Efficiency, Effectiveness, Mortality, and Core Measures, but had opportunity to improve in Spend. We met with Bart Adams and the four primary orthopedic surgeons responsible for Total Joints. We reviewed profitability data and multiple benchmarks and agreed on a strategy that we felt was appropriate for our organization. We set targets tied to average implant cost per case for a typical primary hip and knee, and asked each vendor to meet those targets. This resulted in our largest one-time drop in cost per Total Joint replacement cases and will have a significant impact on our UHC ranking.

# PURCHASING

In addition to the daily responsibility to process routine orders and be a buying resource to departments, Purchasing focused on Product Standardization and Purchased Services cost reductions as targets for FY14. Because of this focus and identified opportunities, examples of success are highlighted below:

- **Maximizing Use of Novation's Standardization Programs**
  This has been a point of emphasis for years that is strongly supported by the organization. New opportunities continue to emerge and clinicians are engaged to support clinically viable products available through the standardization programs. The FY14 results from this ongoing effort include rebates totaling $440,000.

- **Baby Formula**
  Clinical consensus allowed for a consolidation to one primary supplier for the pediatric nutrition category that comprises the majority of organization costs for baby formula. Approaching the supplier with this commitment and contracting as such, resulted in actual savings of $43,500 in the first seven months with another $31,000 projected before the end of the first year of the initiative.

- **Ambulance Services**
  Using comparison data and a better understanding of the competitive marketplace for these services, significantly reduced pricing was established with our primary supplier. Streamlined processes for billing also resulted in efficiencies experienced by the Care Transfer Team. Depending on utilization of ambulance services, expected annual savings exceed $65,000.

- **Natural Gas Sourcing**
  Research into the availability of preferential State Contract pricing surfaced unique opportunities only available to the system's larger facilities. Extensive discussions with several parties resulted in Natural Gas sourcing savings for the South Jordan and Orthopedic Center buildings. Combined projected annual savings for these facilities is estimated at $50,000 for FY14.

- **OR Power Equipment Maintenance Standardization**
  Eliminating the variation of service providers for OR power equipment presented efficiency and cost reduction opportunities for the Operating Rooms at several different facilities in our organization. In conjunction with the OR, we consolidated these services to one primary supplier under a single contract. Beyond the efficiencies of consolidating to one provider, the additional discounts received indicate annual savings in excess of $86,000.

# PHARMACY



Chart – FY14 Pharmacy Savings:

| Category | Savings |
|----------|---------|
| Imbruvica | $105,000 |
| Audits | $200,000 |
| Ambisome | $86,000 |
| IVIG | $140,000 |
| Arixtra | $18,000 |
| Precedex | $102,000 |
| Reclast | $650,000 |

Axis markers: $  ·  $500,000

**FY14 Cumulative Pharmacy Savings: $1,301,000**
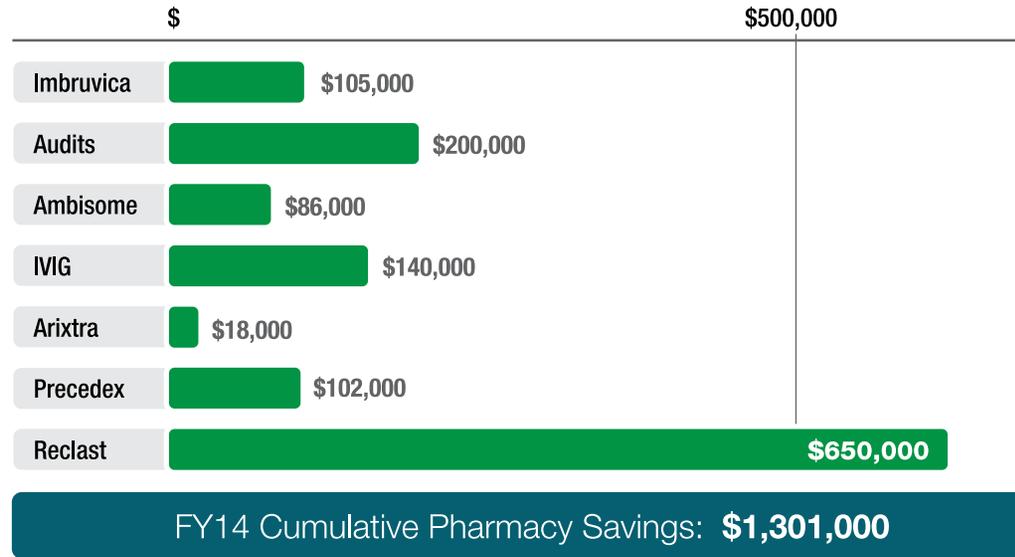
## Optimizing Best Price for Current Medications

Through continuous efforts to check for the best price for products we carry in the pharmacy, we have been able to decrease both inventory carrying costs as well as drug spend.

- Convert Reclast to Zoledronic Acid
- Precedex (dexmedetomidine) Vials Converted to Ready-to-Use Bottles
- Convert Arixtra to Fondaparinux:  Switch from brand to generic

## Standardizing Purchasing and Optimizing Contracts

- IVIG Standardization to Gammagard
- Abelcet to Ambisome Interchange:  Switching to Ambisome from AbelcetImbruvica Pricing Optimization:  Savings of 23%

## Contract Pricing Audits

The pharmacy buyers auditing our contract pricing, identify discrepancies, correct contracts, and reclaim overpayment:  Savings > $200,000 in FY14
Future savings:  Over $200,000 per year

# BEST PRACTICE—IMPROVING PROCESS
# AT THE FRONT LINES

**Patient Financial Services Front-Line Lean: Decreasing AR Days**

For the past five years, University of Utah Hospitals and Clinics has had the same goal:  Reduce Accounts Receivable days to 50 days.

In FY14, the Revenue Cycle Team put strong focus on improving and standardizing process. The team wanted to be among the best performing academic facilities and during their research of the best, found that they were within 10% of achieving their goal. With this knowledge and a working process in place, the team's competitive nature kicked into high gear. Leadership knew that with the right plan defined and implemented, the talented, driven, and highly dedicated team would achieve the goal.

The team measured overall hospital AR Days, which obscured improvement opportunities. The team mapped the process, establishing metrics and goals for each section. The team was able to identify where opportunities existed and could work to optimize every point in the process.

**Standard Work**

They identified where work was being done differently by each team member and standardized the work to decrease time and increase efficiency.

**Verify Performance**

Prior to Epic for Business (EFB) go-live in 2010, the team had less data and could only identify cash collections as a method to reduce the AR Days. After EFB go-live, measuring AR Days inputs was easier. Information on AR balances, department ownership, and real-time feedback were now available. Leadership was able to break down accounts receivables based on the revenue cycle and identified the internal process owners. The team began monitoring sub-processes of the overall AR Days process and created an environment of ownership and accountability by providing Epic reports and queue routing to the process owners, and holding them accountable for the outcomes.

**Preventive Actions**

Looking at the processes, the team saw that by combining different departments they could streamline the process and reduce ownership changes. Using their new understanding of AR Days, the team built a tool in Excel that could project the number of AR Days depending on the amount the team was able to process. This tool allowed them to plan ahead and identify what needed to be done to impact the future value of AR Days by segmenting the accounts receivable into manageable portfolios, based on expertise. This created enhanced focus with individual measurable goals that directly impacted the overall AR Days goal. Not only were they measuring, they were proactively modifying their daily work to ensure their overall goal was met.

**Corrective Actions**

During the first year of implementation, the teams were achieving their goals some months and falling short others, even though they were working hard. Through dialog between leadership and process owners, along with analysis of their metrics, they were able to identify seasonality in the ability to collect, a previously unseen barrier to improved performance.

Leadership adjusted the monthly goals for the process owners in the second year and the teams were more successful collecting their monthly goal amount and reducing the variation of AR Days through the year. When a member does not meet their monthly goal, leadership communicates with them and re-evaluates the appropriateness of the goal to ensure individual success.

## Leadership and Culture

Once they were able to measure, analyze, and understand, they set equal monthly candidate for bill goals for the process owners. Leadership communicated with the internal process owners and team members the importance of the role each member played and emphasized ownership and accountability. The team's motto is *"Accountability is empowering and a personal choice."*

Leadership encouraged a cultural shift to ownership of both positive and negative outcomes and created a safe environment that allowed the team members to openly discuss successes and opportunities without judgment and allowing for optimal resolution. Every member of the team was empowered to work through the process. Even when the team members needed assistance outside their team, the revenue cycle team member maintained ownership, following their accounts through the workflow and engaging with outside members to ensure that the account was being worked and follow-through completed.

The first year of implementation was difficult for everyone involved because everything was changing. Leadership recognized that change is difficult and offered a series of training courses to support the cultural shift during the first year. Team members that embraced the new culture thrived and performed at higher levels than before. A new adopter of the culture and process owner sent an email to her manager letting her know they were expecting a payment posting on Monday morning. Before the manager came in on Monday, she had received an email from the process owner letting her know that the payment hadn't posted when expected and that she was investigating with the payer. This would not have been done in the past.

**$19M**
SAVINGS

### Lessons Learned

- Leadership support and encouragement of the team members.
- Cultural change from blame to ownership.
- Standard Work: roles and responsibilities are defined.
- Safe environment for team members.
- Goals are achievable and account for variations in the system.
- Clear understanding of the components that affect the system.

# FINANCIAL STRENGTH

# It is not enough to **get better**, we must get better **faster**.

*—Sean J. Mulvihill, MD*
*Associate Vice President*
*Office of Sr. VP Health Sciences*

# SOUTH JORDAN HEALTH CENTER EXCEEDS FY14 VOLUME PROJECTIONS

## SJHC All Outpatient Visits



Legend:
— Budgeted OP Visits
— Actual OP Visits
— Linear (Actual OP Visits)
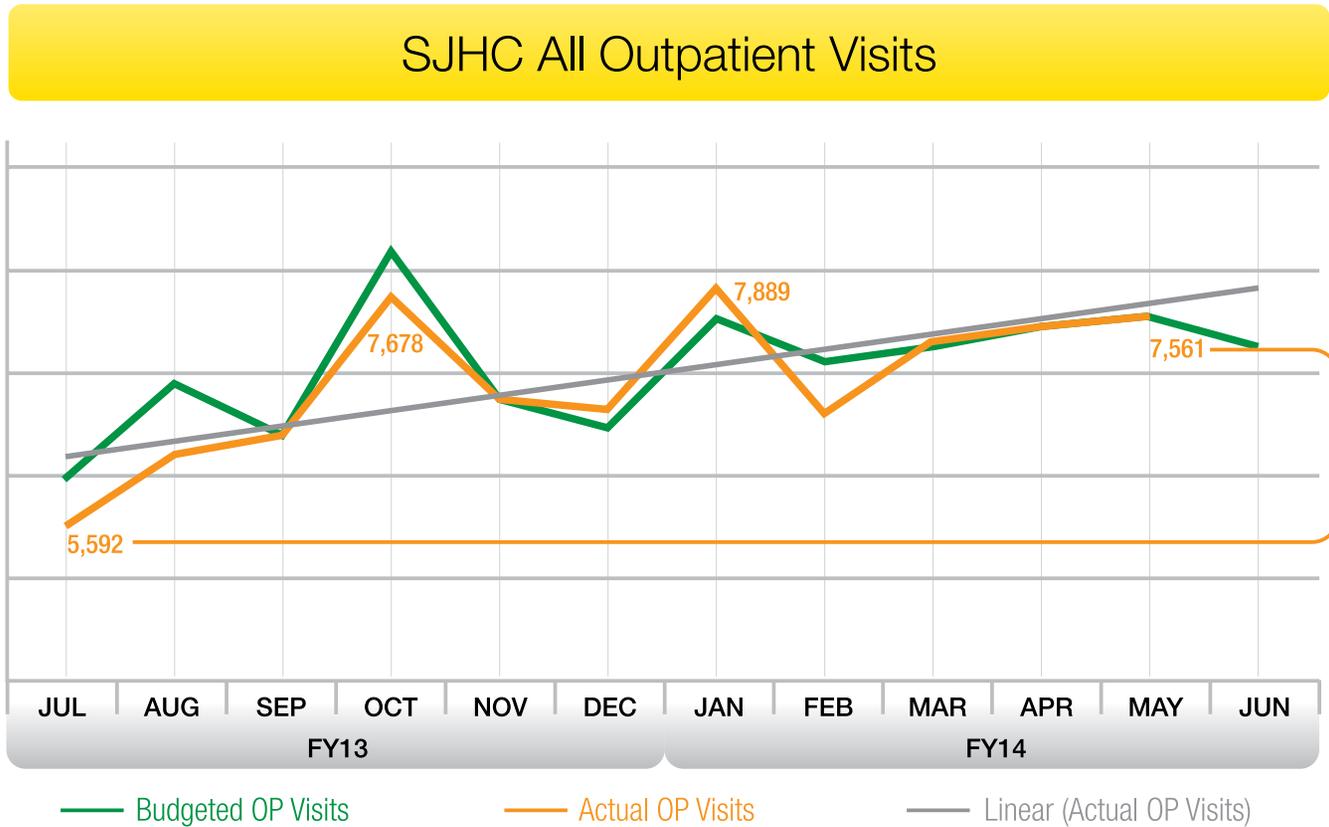
**The strategic success of South Jordan is shared by all of these departments and service areas.**

| | | | | |
|---|---|---|---|---|
| Family Medicine | Internal Medicine | Pediatrics | Dermatology | GI |
| Oncology | Neurology | Orthopedics | ENT | Physical Therapy |
| Opthamology | PMR | Pulmonology | Radiation Oncology | Rheumatology |
| General Surgery | Neurosurgery | Plastic Surgery | Urology | Cardiology |
| | Radiology | Infusion | Pharmacy | |
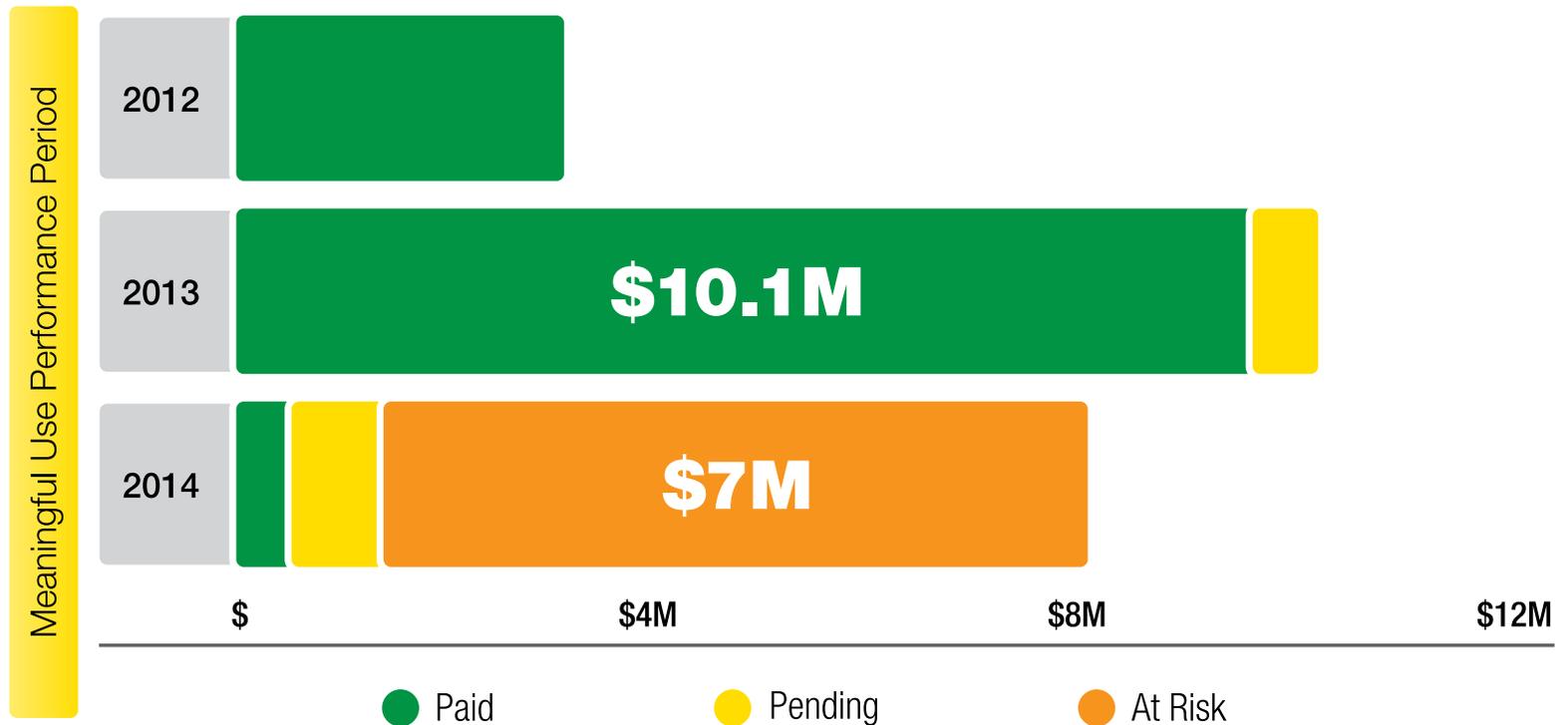
# IMPROVE OVERALL SYSTEM EFFICIENCY AND EFFECTIVENESS



FYTD Total Expense per CMI Adjusted Discharge
Goal: 1.0% below budget

More Than
Under Budget **3%**

Target    FY14 Budget    Actual

Madison Memorial Hospital

Teton Valley Healthcare

St. John's Medical Center

Memorial Hospital of Sweetwater

Carson Tahoe Regional

Community Hospital

**6 Affiliate Hospitals Added in FY14**
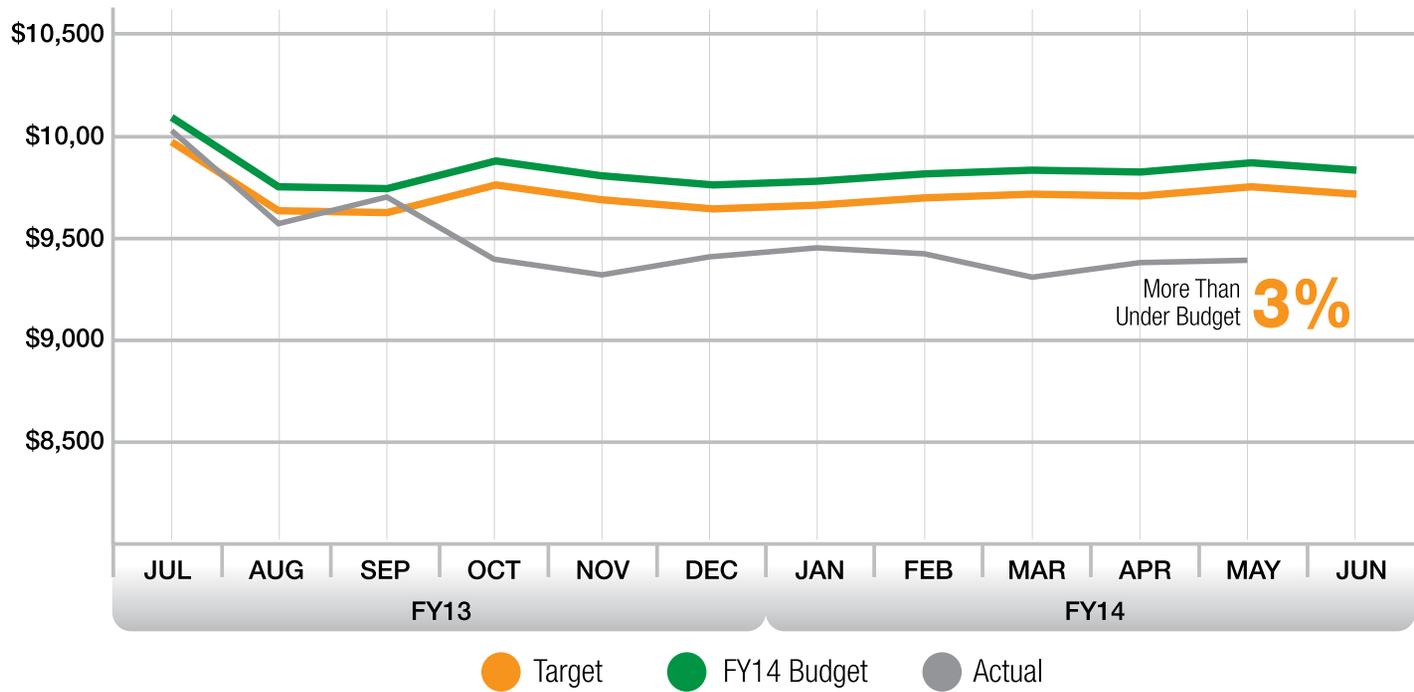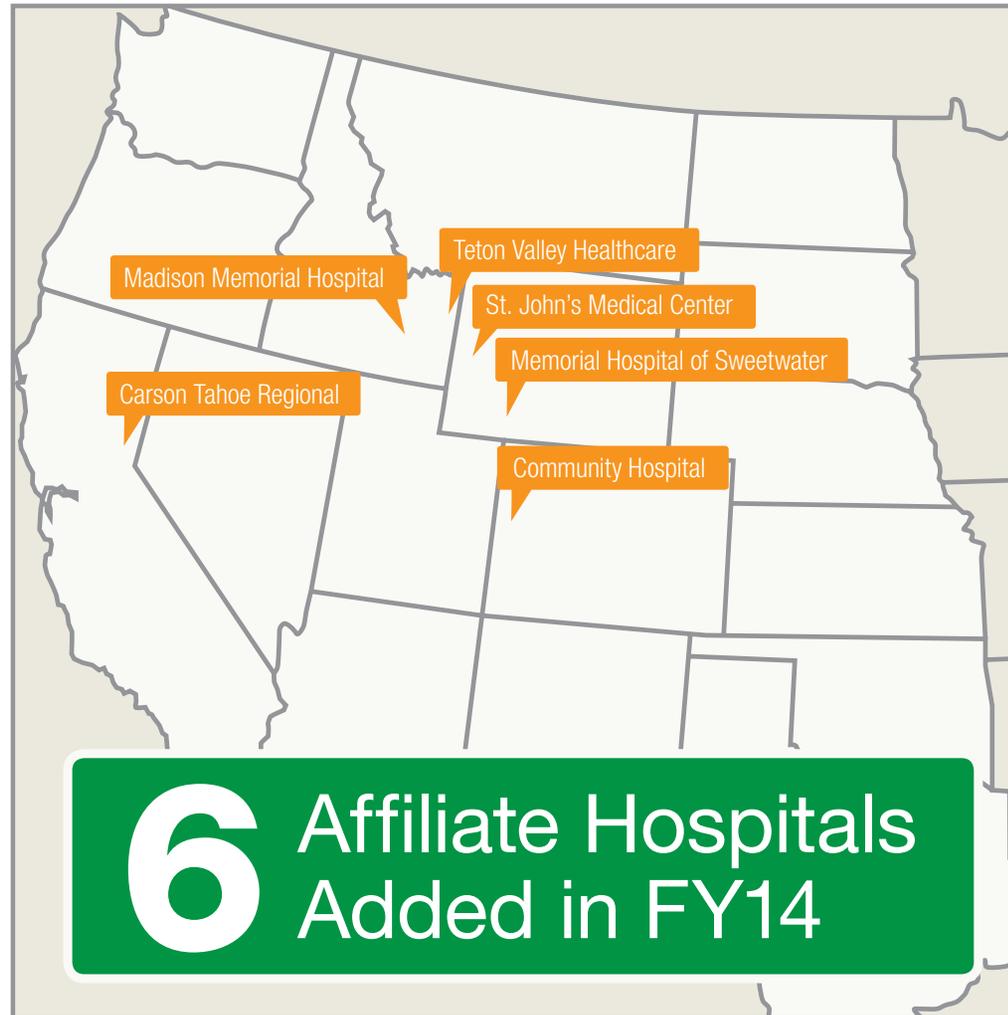
**Establish 3 to 4 Contracts with Outlying States That Bring New Business to the Health System**

1. Wyoming
2. Blue Cross of Wyoming—Transplant
3. Blue Cross of Idaho—Dialysis

# Increase Growth from Targeted Regions

Overall Growth

**11%** increase in cases

**21%** increase in margin
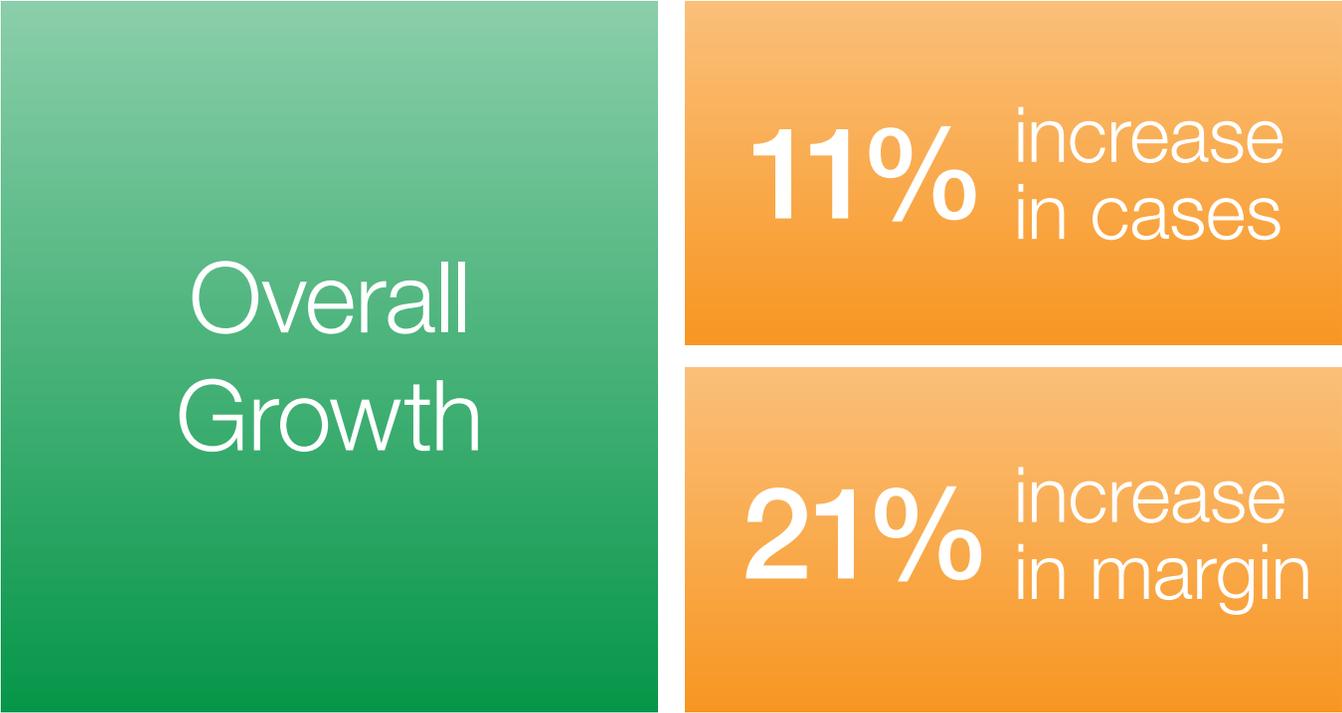
The analysis includes the whole state of UT, 3 target counties in AZ, 8 target counties in CO, 8 target counties in ID, 9 target counties in MT, 8 target counties in NV, 2 target counties in OR and 8 target counties in WY.
Jul-Apr FY13 compared to Jul-Apr FY14

# LEAN COLLABORATION WITH AFFILIATES

In an outreach effort, the University of Utah Health Care system formed strong relationships with three affiliate hospitals in its catchment area.

**Participating Hospitals**
- Carson Tahoe—Carson City, NV
- St. John's Medical Center—Jackson, WY
- Madison Memorial Hospital—Rexburg, ID

**Lean Training Instruction Period:  November 12-13, 2013**

**Projects Identified**
- Carson Tahoe—Inactive Admission Period Reduction
- St. John's Medical Center—Surgical Sterilization Optimization
- Madison Memorial Hospital—Patient Satisfaction Improvement

**Over a Two-day Period UUHC Taught a Lean Workshop that Focused on:**
- Problem Identification
- Identifying and Separating the Vital Few from the Trivial Many
- Standard Work
- Error Proofing and Visual Workplace Management
- Cultural Readiness
- Engaging Clinicians in Value Improvement Work

Each of the three hospitals was assigned a coach from the value engineering team who worked with the affiliate hospital's value improvement team.

# RESULTS

**Carson Tahoe**

Leveraging domain knowledge and existing patient survey data, Carson Tahoe focused on reducing delays in their process by optimizing the admission and rooming process from the ED and identifying a key time parameter, which was termed the Inactive Admission Period (IAP). The IAP was defined as the time period from the decision to admit the patient to the time that patient was roomed.

**Step 1:** **Determine the frequency and duration of the IAP period.**
This was achieved by writing queries against existing data systems at Carson Tahoe.

**Step 2:** **Determine which units most frequently had delays and why.**
This was achieved by marrying the IAP period data with the admitting unit record using MRNs as a link.

**Step 3:** **The reasons for the delays were determined by using the inpatient data collection form that was filled out by the ED nurse, again linking to MRN.**

This three-step process allowed Carson Tahoe to determine which units most frequently had IAP delays, and to separate the vital few from the trivial many when evaluating IAP delay causes. This analysis, coupled with additional efforts at Carson Tahoe, resulted in workflow redesigns, scorecards, patient flow redesigns, a revised triage process, and a reduction in IAP.

# IMPROVE HEALTH PLAN PATIENT STEERAGE, MEMBER GROWTH, AND MEDICAL LOSS RATIO

|  | Hospitals and Clinics | Healthy U |
|---|---|---|
| JUL | 93.2% | 93.3% |
| AUG | 88.2% | 94.7% |
| SEP | 91.0% | 91.9% |
| OCT | 88.5% | 92.6% |
| NOV | 88.7% | 92.0% |
| DEC | 88.9% | 92.2% |
| JAN | 89.8% | 92.1% |
| FEB | 90.4% | 91.5% |
| MAR | 91.1% | 93.6% |
| APR | 92.9% | 92.2% |
| MAY | 93.8% | 92.4% |
| JUN | | |

Goal:  Hospitals and Clinics medical loss ratio – 87%      Healthy U medical loss ratio – 94%

## Increased Lives and Market Share
Goal: 6.5% increase in lives and market share



% Variance from FY13

| | | | | | | | | | | | |
|JUL|AUG|SEP|OCT|NOV|DEC|JAN|FEB|MAR|APR|MAY|JUN|

FY13 — FY14

● Target   ● Actual
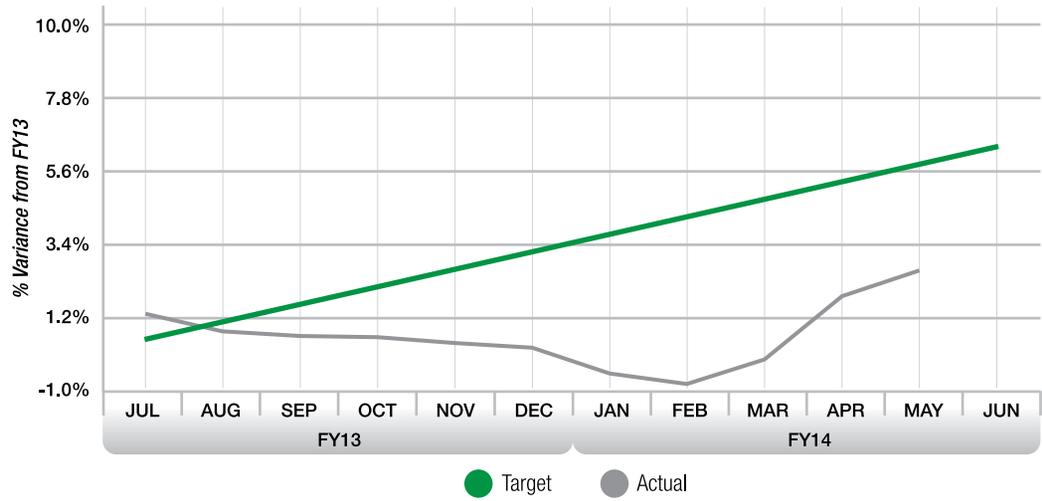
## Increased Services to University Health System
Goal: 5% increased services



% Variance from FY13

| | | | | | | | | | | | |
|JUL|AUG|SEP|OCT|NOV|DEC|JAN|FEB|MAR|APR|MAY|JUN|

FY13 — FY14

● Target   ● Actual
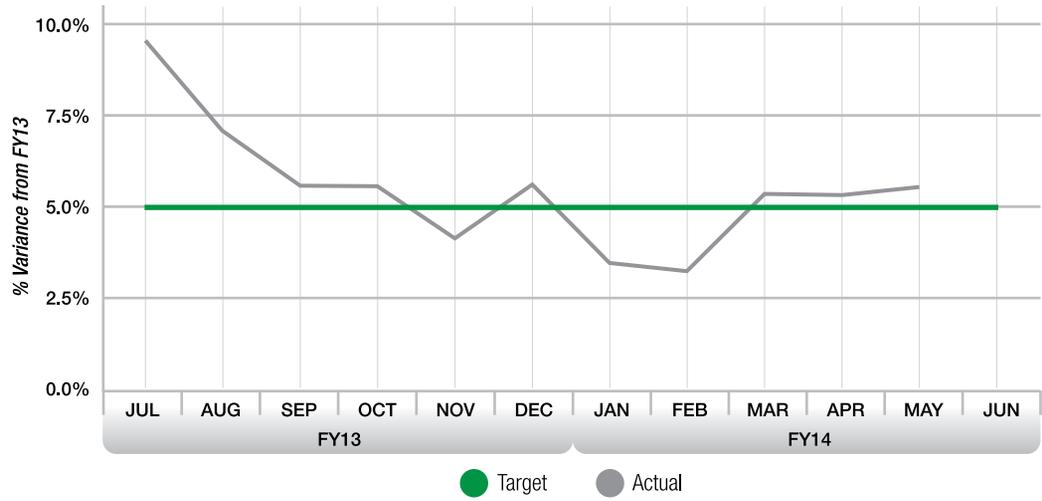
# FINDING VALUE IN NEW AREAS
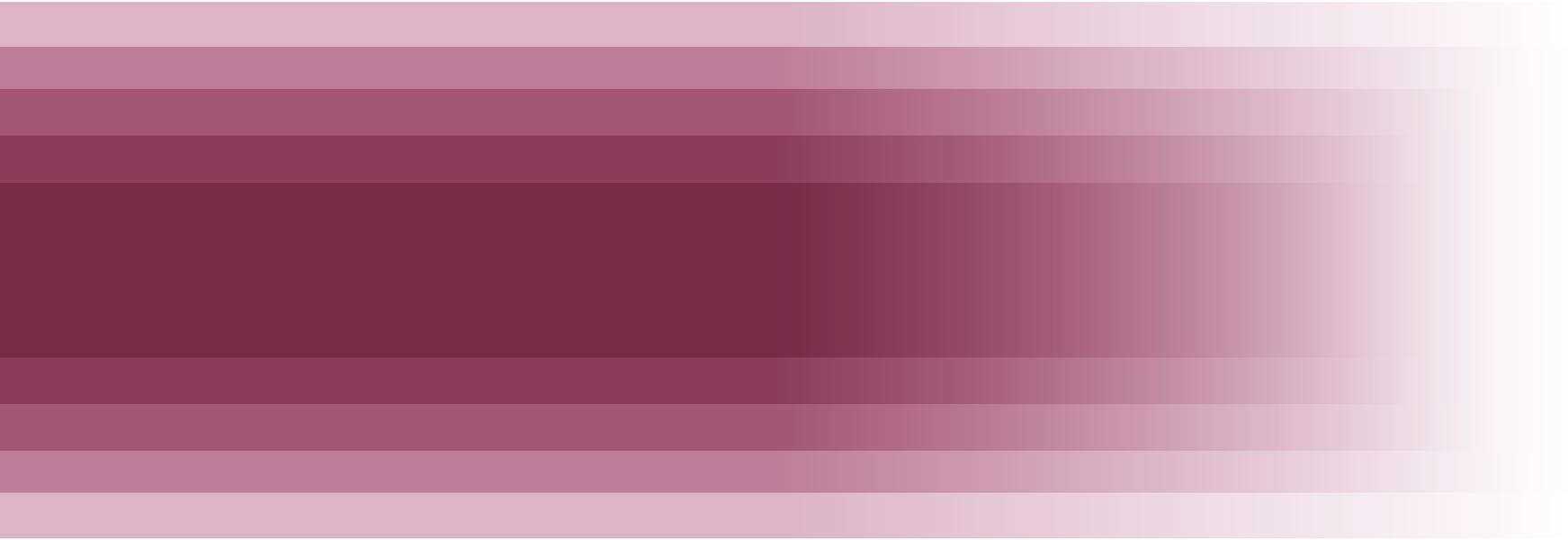
# LEADERSHIP CASE STUDIES FY14

**Leading transformation in healthcare requires a sophisticated skill set.**

**Leaders must engage with the organization:**

- **Communicate Vision**
- **Form a Powerful Guiding Coalition**
- **Empower Those Around Them**
- **Sustain Changes in a Very Complex, Bureaucratic System**

This year, we took a critical look at how our system leaders implemented transformations that fundamentally changed the institution. Using the lens of Harvard Business School Professor John Kotter's framework of leading change, the exceptional value leadership case studies investigate the structure behind effective leadership.

## South Jordan: The Field of Dreams. If We Build It, Will They Come?

Explores the leadership of Dr. Richard Orlandi and the building of South Jordan Health Center.

## After the Architect, Building Culture Calls for a Contractor: Exceptional Patient Experience at University of Utah Health Care

Explores the leadership of Dr. Tom Miller and physician engagement in patient satisfaction.

## Value-Driven Outcomes: One Small Step for Health, One Giant Leap for Health Care Costs

Explores the leadership of Dr. Vivian Lee and the creation of a new costing and outcomes system of measurement.

# SCHOOL OF MEDICINE CLERKSHIP EVALUATION VALUE IMPROVEMENT PROJECT

## Problem

In the early fall of 2013, a School of Medicine Clerkship Evaluation Value Improvement project was created to study the process of clerkship grades. Early in the process, timely submission of both preceptor evaluations (contributing to the final grade) and the final grade were identified as areas of concern. Despite exceeding the current LCME Standard of timely grade submission: (Standard 9.8: Fair & Timely Summative Assessment) "A medical school has in place a system of fair and timely summative assessment of medical student achievement in each course and clerkship of the medical education program. Final grades are available within six weeks of the end of a course or clerkship" the concern was quickly identified that this did not allow feedback to the student in enough time to positively affect their continued learning into their next clerkship and throughout their third year. The team felt if students could receive their final evaluations (with helpful feedback) earlier, it would help them correct identified problems and hone skills they were already showing proficiency in.

## Approach

The initial team consisted of School of Medicine Leadership and Clerkship Coordinators who met and through process mapping and root cause analysis identified the primary drivers of the lengthy process:

- Preceptors were not submitting the evaluation soon after initial reminder.
- Laborious manual entry of evaluation information in various repositories and documents for final grade.
- Evaluation status tracking.

The team mapped the clerkship evaluation process from the beginning of clerkship to final grade submission, and identified Value Added Activities; Non-Value Added Activities; and wait time. The total process took 26 days for completion; only 120 hours were Value Added Activities. Most of the time was spent batching, reworking, and waiting for information or reviews. This also meant that student feedback wasn't available as the final grade wasn't submitted until all preceptor evaluations were received and calculated into the final grade. Using the data described above (Value Added Activities vs Non-Value Added Activities and Wait Time), the team set out to solve the problem.

The next step was to have the clerkship coordinators meet in a smaller group with information system staff and software developers to develop a tool that would allow for timely and accurate submission and collection of information as well as reporting. This was a unique group that normally wouldn't have worked together, who collaborated with synergy to create a system that would meet the project goals of quicker feedback to the students. The outcome of the meetings was the development of TOOLS.

## Benefits

TOOLS is a web-based single platform that allows:

- Clerkship coordinators to request evaluations from the preceptors.
- Preceptors to evaluate the medical students with an evaluation form accessed through a secure link in an email.
- Preceptor's submission of the evaluation, and the compilation of information to produce the final grade.

When possible, the information gathering has been automated (for example, information is pulled from existing university systems and databases) thus eliminating the need for manual entry.

Testing of the system took place in the spring of 2014 with modifications and additional testing through June. During this testing, we have seen a decrease of time spent in completing the student evaluation—the goal of our project.

Currently, TOOLS is being used by the School of Medicine Clerkships as of July 1 and clerkships will continue to meet regularly with the project team to ensure success.
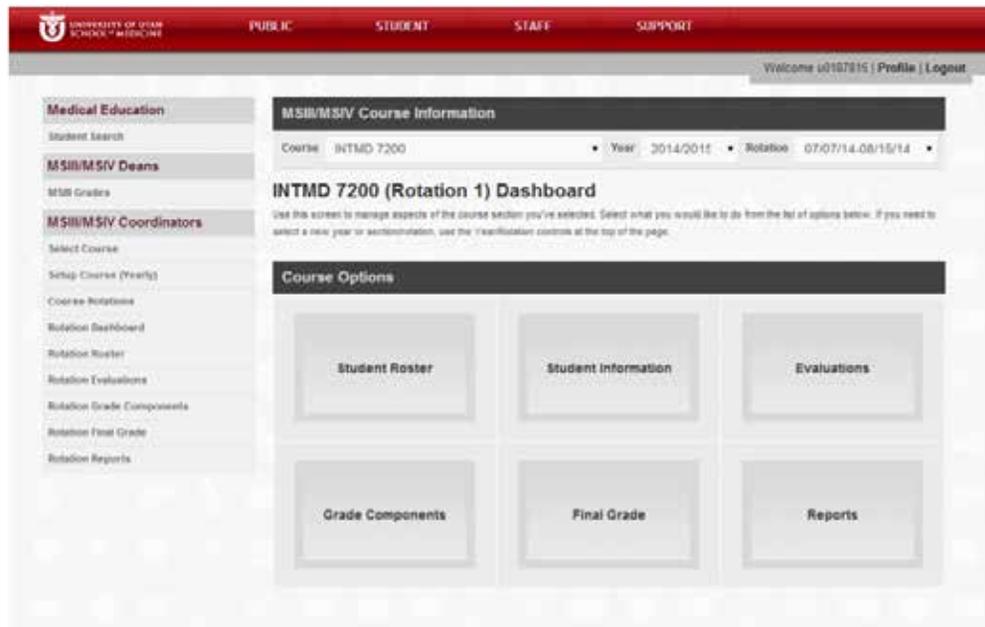
**The Health System Innovation and Research Program (HSIR)**

*The Path to Becoming a* **LEARNING HEALTH SYSTEM**

**1** Digital Infrastructure **2** Data Utility

**3** Clinical Decision Support **4** Patient-Centered Care

**5** Community Links **6** Care Continuity

**7** Optimized Operations **8** Financial Incentives

**9** Performance Transparency **10** Broad Leadership
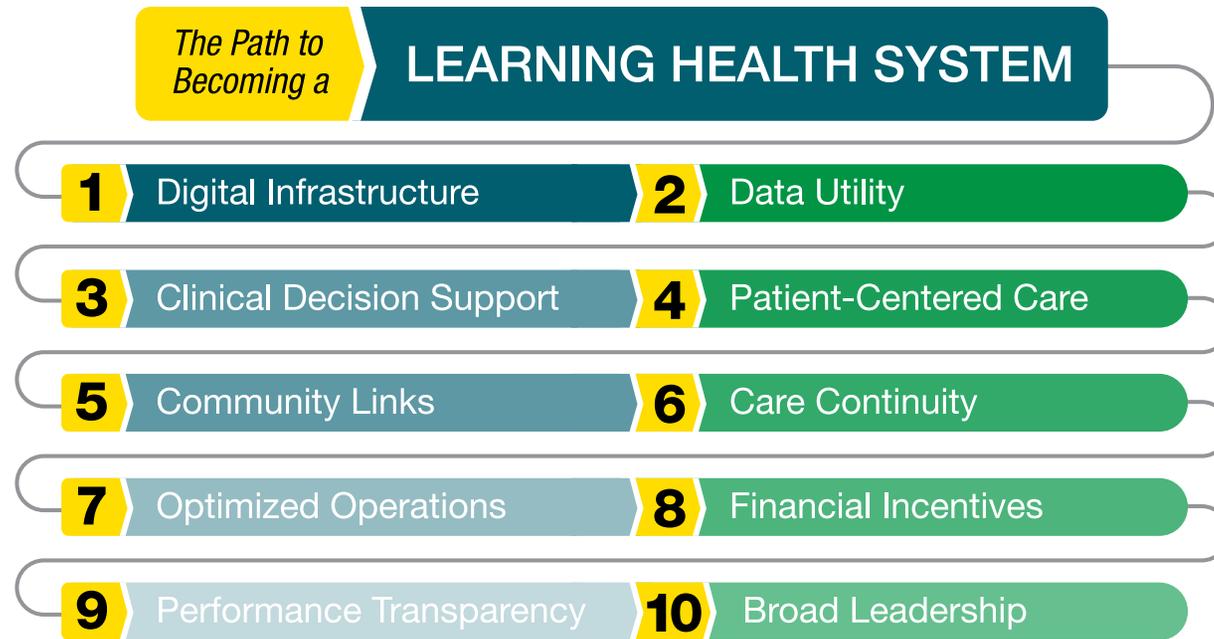
## Adding Value to the University

**INCUBATE** | **FACILITATE** | **CATALYZE**

The Health System Innovation and Research (HSIR) program promotes the right care for every patient by enhancing the efficiency, value, and quality of care delivered by health care systems and clinicians. HSIR works within the University of Utah Health Care System to create a virtuous learning cycle that enables collaboration to develop and evaluate innovations that improve the quality of patient and population-oriented care. HSIR partners with community, clinical, and academic stakeholders to facilitate the implementation and dissemination of these unique developments in order to affect change to health systems and the delivery of care worldwide.

## Ideas in Progress

Do you have an idea for a project that you would like to move forward? Bring it to *Ideas in Progress* to workshop with colleagues. Come out with strategies as to how to move your idea forward. We meet the third Wednesday of every other month from 4:00-5:00 PM.

## BLD

Water-cooler conversation focused on an area of interest. Join HSIR and people with shared interests from around the University for breakfast, lunch, or dinner (times vary monthly).

## Grant Development

Reach out to HSIR for consultation on projects that work within the health system.

## The Path to Becoming a Learning Health System

Join the Department of Biomedical Informatics and HSIR as we explore the steps towards creating a Learning Health System at the U of U. We meet the second Wednesday of the month from Noon – 1:00 PM (times may vary). **http://medicine.utah.edu/bmi/seminar-series/learning-health-system.php**

## About Us

**Rachel Hess, MD, MS**—*Director*
Rachel is a health services researcher with an interest in patient-centered outcomes, such as health-related quality of life and interventions to improve the delivery of healthcare. When Rachel is not in the office, you can find her spending time with her husband and daughter, probably at a soccer game.
**Education:** *MD, University of New Mexico; MS, University of Pittsburgh; BA, Washington University*

**Kim M. Bowman Jr., JD, MBA, MA**—*Manager*
Kim is an attorney with a personal and professional interest in law, business, and gerontology. When Kim's not working in the office, you can find him with his wife restoring their old house.
**Education:** *JD, University of the Pacific; MBA, Westminster College; MA, University of Southern California; BAs, University of Utah*

**Lauren Kirwan**—*Coordinator, HSIR Program*
Lauren comes to the HSIR program as overall program support with professional background in education and law. When Lauren's not in the office, you can find her learning to play tennis or watching her boyfriend compete in beach volleyball tournaments on the weekends.
**Education:** *BA, University of Washington*

### Contact Us

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For more information or to check out our full calendar of events, visit:
**healthsciences.utah.edu/hsir**

# FINDING VALUE IN NEW AREAS

**Collaboration Space within the Eccles Health Sciences Library**
Champion:  Jean Shipman

A space for meetings, lounging, studying, and group interactions has been created in the Eccles Library. The area on the Garden Level offers a cheery and welcoming space to work together, meet, or just relax. The space has a number of conference rooms (largest 14-seat), group work bays, a presentation corner that can be set-up for lectures and events as needed, and several offices, lounge areas, and a small kitchenette. There are telescopic mobile white boards, video display monitors, and lots of glass walls to transcribe and record your deliberations. The Center for Medical Innovation and the Eccles Library has first priority for room reservations, but others may reserve these rooms as well, 24 hours in advance.

If you would like to reserve a space, please contact the Eccles Library Front Desk (801.581.8772). Check out the new Eccles Library Garden Level and collide with a familiar colleague or make a new acquaintance in this beautifully remodeled library space. And don't forget to chat with the library staff while there.