



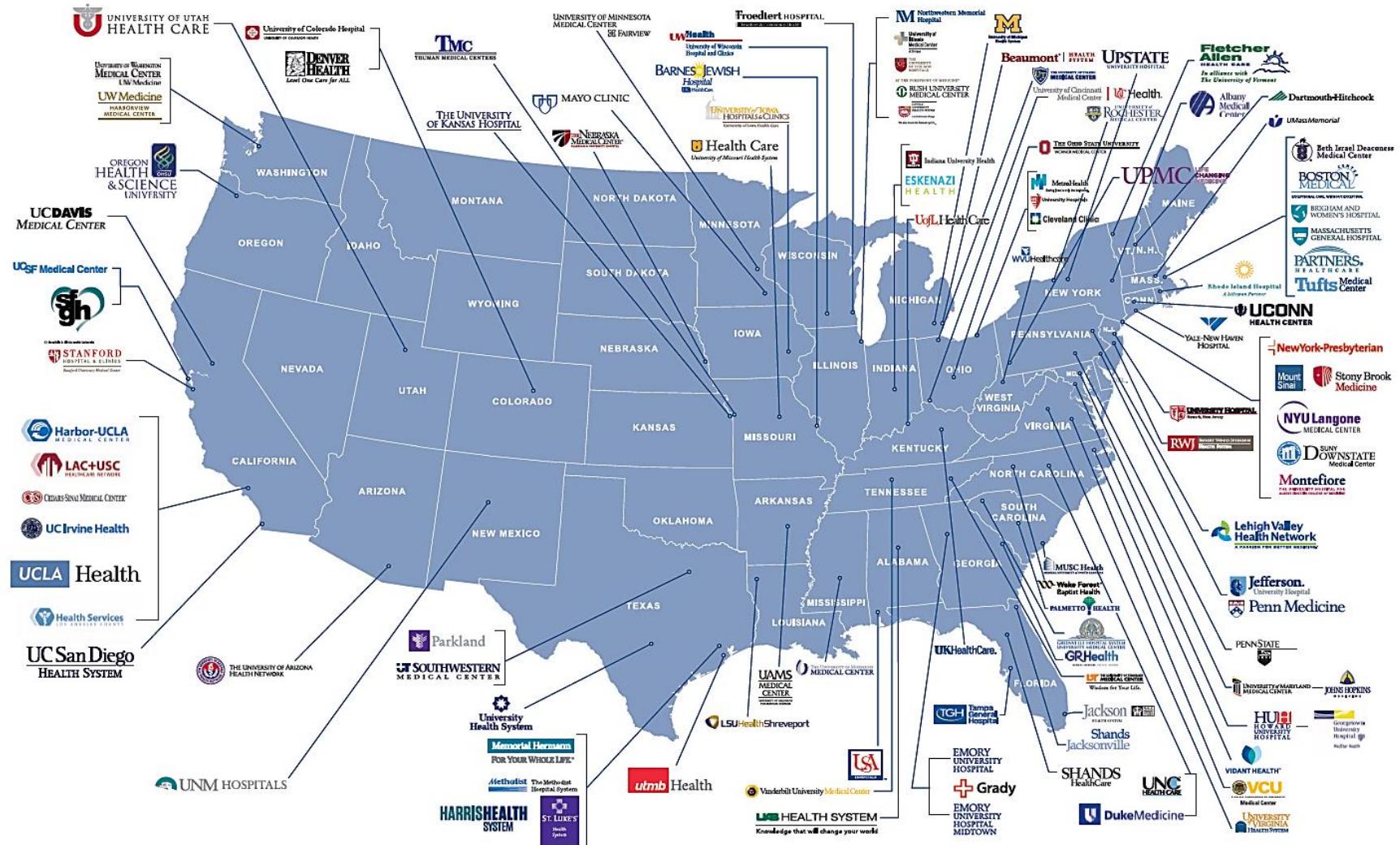
AEH and UHC's CDB Data

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Sr. Vice President, Member Insights and Innovation
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What is UHC?



2014 Integrated Academic Medical Center Principal Members



How is a Co-Op Unique?

- **The CEOs of the Principal Members are our Board**
- **UHC operates its business with and for members at cost**
- **Our operating profit is distributed back to members**
- **Employees with knowledge and experience in hospitals**



Membership Benefits

- Access to UHC Offerings
- Councils
- Listservers
- UHC Annual Conference

Program Contacts

Product Name	Name	Job Title
NAPH-HEN Technical Liaisons		Coordinator
Best Practices for Better Care (BPBC) Coordinators		edicine
Best Practices for Better Care (BPBC) Coordinators		or, Patient Safety
NAPH-HEN Technical Liaisons		er
NAPH-HEN Technical Liaisons		nprovement Specialist
FPSC-Technical Liaisons		g Solutions
FPSC-Clinical Project Liaisons		venue Integrity
Clinical Data Products (CDB/RM/CM) Executive Sponsors		il Director
Nurse Residency Program (NRP) Coordinators		Officer
Nurse Residency Program (NRP) Coordinators		e Educator
Nurse Residency Program (NRP) Coordinators		orce Development
Clinical Data Base (CDB) Coordinators		nator
Clinical Data Base (CDB) Coordinators		ordinator
Clinical Data Base (CDB) Coordinators		ordinator
Clinical Data Base (CDB) Technical Liaisons		nator
Chief Privacy Officers		fficer
Clinical Data Base (CDB) Technical Liaisons		er
Supply Chain Senior Executives		ctor Materials

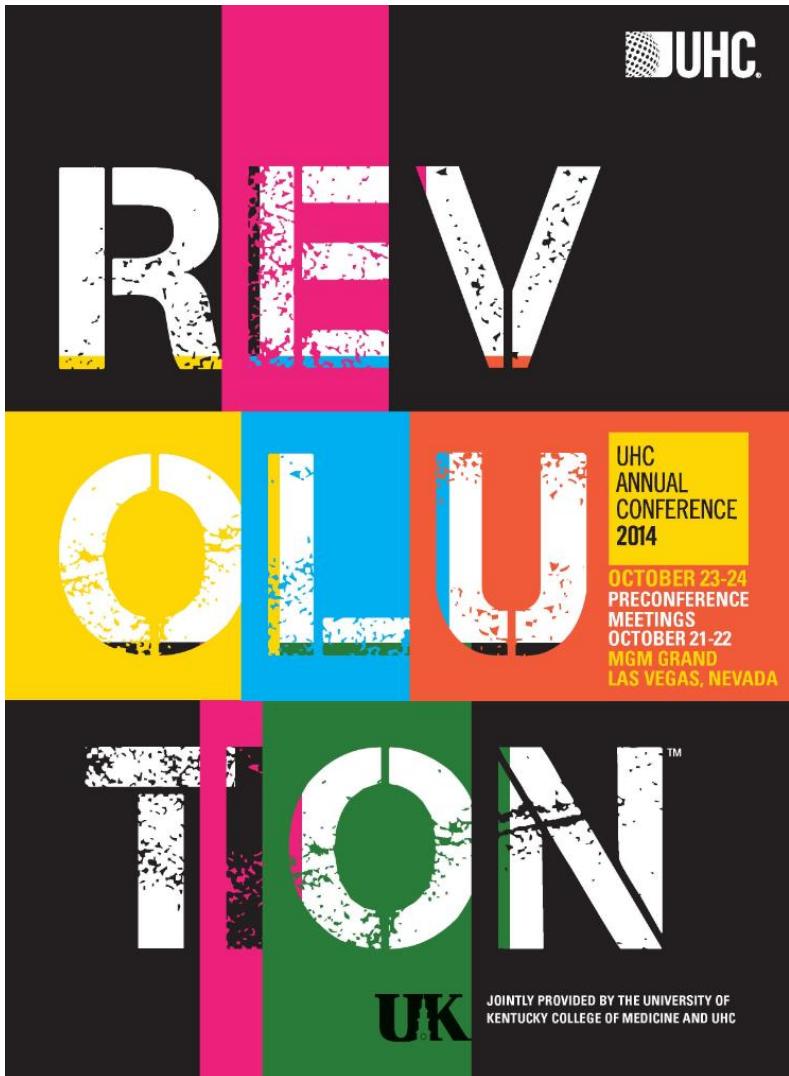
Product Name

Clinical Data Base (CDB) Coordinators	ty Coordinator
Clinical Data Base (CDB) Coordinators	ta Coordinator
Clinical Data Base (CDB) Coordinators	ordinator

Councils

Product Name	Name	Job Title
Medical Leadership Council		Chief Medical Officer
Chief Nursing Officers Council		Sr. Director for Corp. Nursing Practice
Chief Nursing Officers Council		Sr. Director for Corp. Nursing Practice
Chief Nursing Officers Council		Chief Nursing Officer
Chief Nursing Officers Council		Associate Administrator/Program Development
Chief Human Resources Officers Council		Chief Human Resources Officer
Chief Human Resources Officers Council		Director, HR Strategy & Consulting
Chief Quality Officers Council		Chief Medical Officer
Chief Quality Officers Council		Quality Medical Director
Chief Quality Officers Council		Special Projects Director Quality
Chief Marketing Officers Council		Vice President /Public Relations, Marketing & Brand I
Chief Information Officers Council		CIO
Chief Financial Officers Council		Chief Financial Officer
Perioperative Services Council		Sr. Director for Corp. Nursing Practice
Perioperative Services Council		Director of Perioperative Services
Supply Chain Council (Clinical Representatives)		Corporate Negotiator
Supply Chain Council (Clinical Representatives)		Associate CNO
Supply Chain Council (Clinical Representatives)		Associate Administrator/Program Development
Supply Chain Council (Operational Representatives)		Corporate Director Materials Management
Medical Research Council		Director of Clinical Research
Imaging Council		Director - Medical Imaging Eastland
Imaging Council		Director of Medical Imaging

UHC Annual Conference



Evolution to Revolution: Leveraging an EHR for Reporting Quality Measures Using UHC Core Measures
– Woodson, DUKE

One Academic Medical Center's Efforts to Enhance Patient Safety through Comprehensive Screening for Obstructive Sleep Apnea
– Mueller, Stony Brook

Enhancing Patient Engagement and BP Management for Renal Transplant Recipients via Home Electronic Monitoring and Web-Enabled Collaborative Care – podium presentation
– Migliozzi, Ph.D., RIH

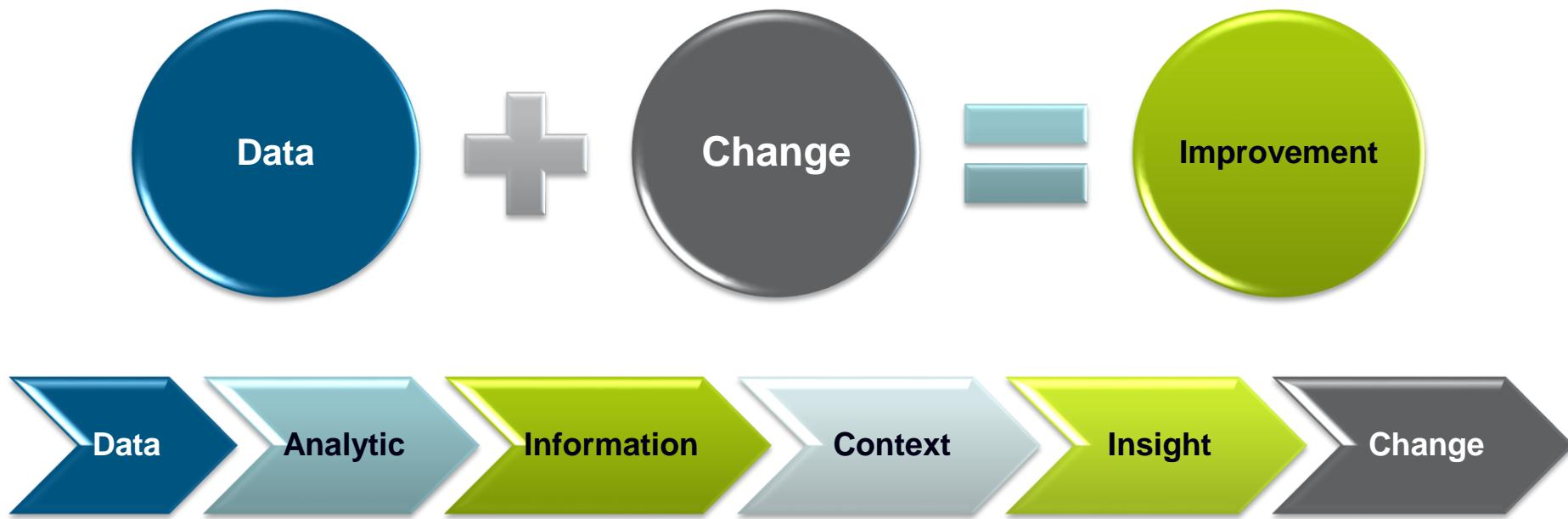
UNPRECEDENTED PRESSURE FOR MORE EFFECTIVE AND EFFICIENT TREATMENT OF CHRONIC ILLNESS AND COMPLEX EPISODES OF CARE

The biggest issue facing the American Healthcare System is our inability to improve
- Don Berwick

UHC is an Improvement Accelerator

Improvement = Systematic measurement and evaluation of the predetermined outcomes of a process, and the subsequent use of information to improve the process based on expectations of the customer.

– *Donabedian*



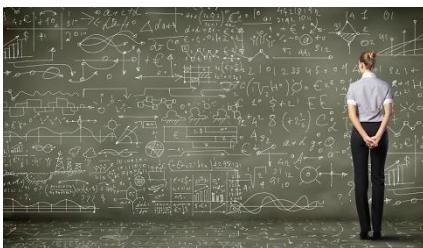
Member Improvement Examples

- After an announcement from the CEO of Denver Health that they would become the first safety net hospital to reach UHC Top 10 in the Q&A Study, they moved from 43rd to 6th in 2 years
- After an announcement from the CMO at Stanford that they would eliminate their red dot in General Surgery Risk Adjusted Mortality, they moved from 109th to 1st in 15 months
- Members participating in UHC's Nurse Residency Program ™ in 2013 had average 95.1% retention. 25 sites had 100% retention.
- UHC ODB member Stony Brook University Hospital increased its ICU intermediate roll-up transfer to discharge rate by 21% and reduced ICU LOS by 6.1% in calendar year 2013, compared with 2012.
- UHC ODB member University of Kentucky Hospital reduced Laboratory Services: Clinical Operations Department total expense (area wage index adjusted) per CMI-weighted lab-adjusted discharge by 9.8%, from \$223 to \$201, from October 2012 through September 2013, compared with the previous 12 months.

The Improvement Structure



Leadership monitoring performance, and placing appropriate attention and resources towards improvement.



Data Scientists understanding the opportunity through evaluation & analysis, networking/searching for best practices. Presents to leadership findings & plan.

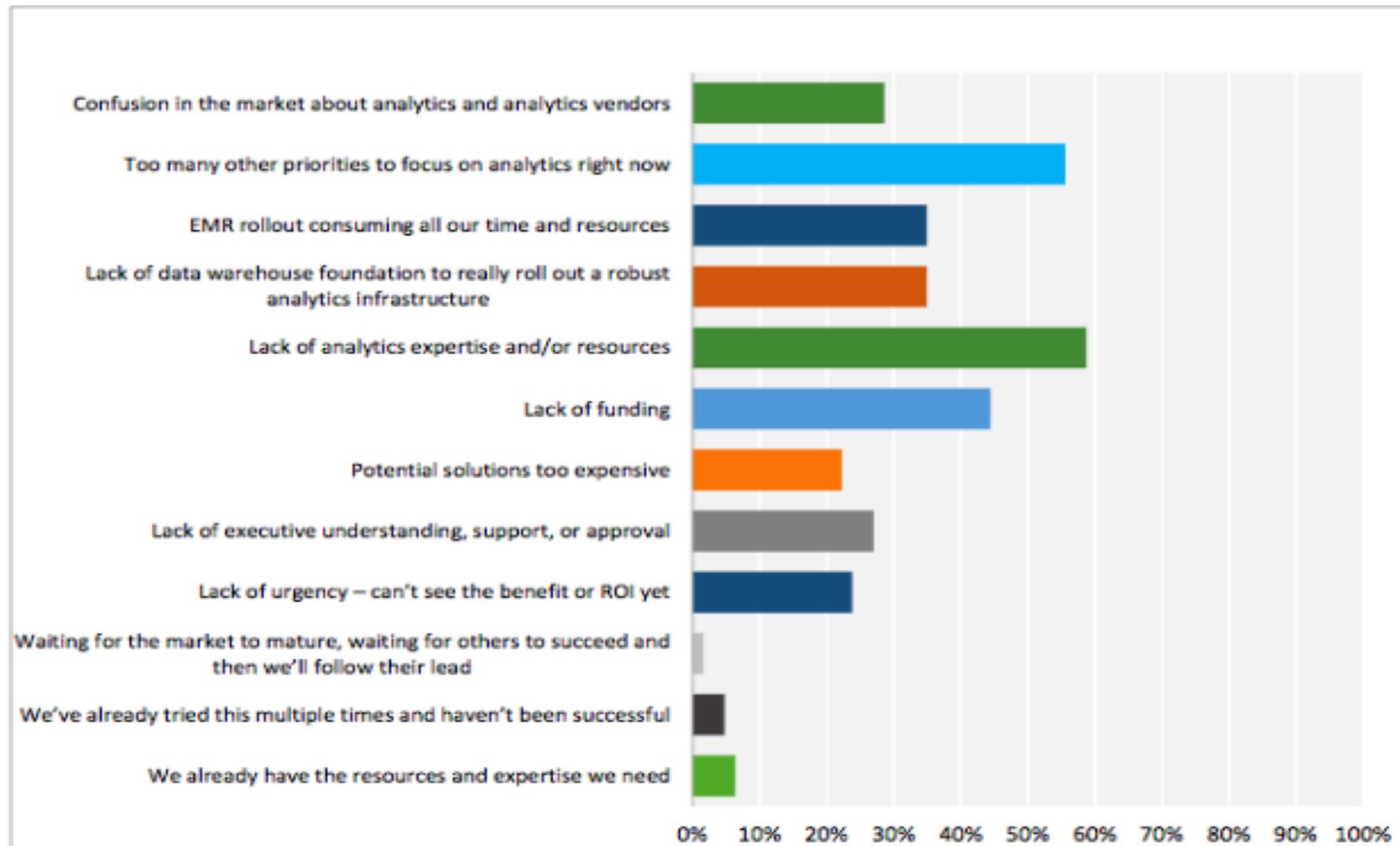


Clinicians who are engaged in the improvement & willing to change

A recent CIO survey found that Analytics was the #1 priority.



What are the biggest obstacles (if any) to accelerating the adoption of analytics in your organization?
(check all that apply)



Performance Improvement and Comparative Data

Stages of Grief Quality Measurement

Kübler-Ross	Shannon Sims, MD, PhD
Denial	There's not a problem
Anger	Data is <i>completely</i> wrong
Bargaining	Need different metrics
Depression	My patients are sicker
Acceptance	OK, maybe we can do better

UHC Comparative Data and Performance Improvement

Clinical Data Base

Transparent, Risk Adjusted Patient Data (n = 270)
Inpatient & Outpatient, By Physician Tool,
Core Measures Intermediary (n=160)

Resource Manager

Drugs, lab & radiology, respiratory, CV/V, accommodation, blood,
ancillary & med/surg supply utilization (N = 143)

Imperatives for Quality (n = 97)

UHC

Practice Intelligence™

Physician
practice
productivity
data
(N = 96)

UHC

Safety Intelligence™

Voluntary
reporting
system for
medical errors
(N = 107)

Operational Data Base

Hospital
department
budget &
productivity
data
(N = 120)

Nurse Residency Program

Curriculum for
new nursing
graduates
(N=130)

Nursing Quality Data Base

NDNQI
magnet data
(N = 74)

CAP2

Privileging,
credentialing,
competency
assessment
(N=195)

UHC's Operational Data Base (ODB)

Comparative Operational Data to Improve Operational Performance

- Performance improvement
- Budgeting
- Cost reduction
- Identification of best performers
- Focuses on operational characteristics such as hours worked, skill mix, and labor/supply expense

Of members that used the data from the Operational Data Base for budget setting and tracking, 58% saved in excess of \$1 million and 25% saved in excess of \$5 million.



Compare Against more than 120 UHC Members & 650 Non-UHC Facilities



1Q14 Productivity Variance Report

Great State Medical Center											
STANDARD DEPT NAME	INSTANCE NAME	Hours Worked/Unit of Service (UOS)	Hospital Performance	25TH PCTL	50TH PCTL	Total FTEs	Annualized FTE Variance 25th	25th Pctl Var % of Total FTEs	Annualized FTE Variance 50th	50th Pctl Var % of Total FTEs	N Depts Reptd
Observation Unit	9264 Observation Unit	Outpatient Observation Visit	18.3	6.9	12.6	25.8	16.1	62%	8.1	31%	38
Medical Transcription	7010 Transcription Services	1000 Lines Transcription Provided	7.3	0.6	1.6	16.3	14.9	91%	12.7	78%	15
Combined Marketing, Communications, Strategic Planning and Public/Comm Relations	6320 Marketing	100 Adjusted Discharges	76.8	33.5	65.3	25.9	14.6	56%	3.9	15%	43
Procurement	6690 Purchasing	100 Adjusted Discharges	71.0	30.1	44.3	24.3	14.0	58%	9.1	38%	36
Observation Unit	9245 CEU	Outpatient Observation Visit	16.9	6.9	12.6	23.1	13.7	59%	6.0	26%	38
Personnel Services	Personnel Services	Facility Employee	2.0	1.2	1.7	33.7	13.5	40%	5.4	16%	36
Physical Therapy: Inpatient	8500 Physical Therapy	APC Relative Weight	4.5	2.7	3.1	33.1	13.5	41%	10.2	31%	30
Pre Admission / Pre Procedure Testing	9790 Admissions Testing	Patient Visit	2.2	0.9	1.4	21.3	12.5	59%	7.7	36%	22
Laboratory Services: Anatomic Pathology	Pathology Anatomic Pathology	Billed Test	0.7	0.4	0.5	21.2	12.0	56%	8.8	42%	58
Operating Room	9259 OR ECHI	Operating Room Case	23.7	15.3	17.6	31.8	11.4	36%	8.3	26%	88
General Facility Department		CMI Wgtd Adj Disch	98.3	93.2	102.6	6154.8	320.1	5%			

Staff Productivity, Overtime (Below), Supplies, Financial Performance

High Overtime, High Staffing Report – 1Q14 with 4-Quarter Average



STANDARD DEPT NAME	INSTANCE NAME	1Q14 OT Hrs as % Wkd Hrs - Hosp Perf	1Q14 Percentiles		1Q14 Projected Annualized Savings		4-QTR Avg OT Hrs as % Wkd Hrs - Hosp Perf	4 QTR Avg Percentiles		4Qtr Projected Annualized Savings	
			25th Pctl	50th Pctl	25th Pctl	50th Pctl		25th Pctl	50th Pctl	25th Pctl	50th Pctl
Med/Surg/Cardiac Intermediate Unit	16150, Step Down Unit	10.52	1.80	3.45	\$260,904	\$211,597	6.10	1.74	3.34	\$125,432	\$80,141
Medical/ Surgical Intensive Care Unit	16010, Medical/Surgical Intensive Car	9.40	3.40	4.82	\$255,896	\$195,265	9.69	2.54	4.31	\$302,125	\$227,102
Labor/Delivery/Recovery/Postpartum /Nursery	16380, 16530, 17400 OB / L&D / Nursery Inpatient Unit	6.30	1.41	2.78	\$148,746	\$107,207	5.90	1.58	2.96	\$132,667	\$90,348
Medical/Surgical Unit	16172 Med/Surg 5E	6.38	1.69	2.98	\$119,930	\$86,878	4.70	1.65	3.83	\$82,015	\$22,987
Operating Room	17420, 18717 Surgery	3.60	1.32	2.61	\$68,254	\$29,748	5.66	1.85	3.31	\$104,649	\$64,286
Operating Room	67420 SLH Surgery	10.51	1.32	2.61	\$67,230	\$57,790	11.89	1.85	3.31	\$58,589	\$49,916
Psychiatric Unit	26344, Nursing Inpatient	5.30	1.69	3.96	\$65,588	\$24,367					
Information Technology	98480, 98485 Information Systems	2.94	0.20	0.55	\$61,974	\$54,070	1.85	0.33	0.64	\$35,060	\$27,885
Post Anesthesia Care Unit (PACU)	17427, Post Anesthesia Recovery Unit (PACU)	7.81	1.17	2.39	\$60,237	\$49,138	9.75	1.91	3.33	\$64,989	\$53,226
Environmental Services	HGH, JGP, FMT Housekeeping	2.90	1.23	2.76	\$43,284	\$3,467	2.19	0.82	2.19	\$34,936	\$478
Skilled Nursing Unit	46584 Skilled Nursing Facility B-2	6.38	2.64	5.14	\$41,132	\$13,653	5.01	3.47	4.93	\$16,651	\$708
Plant Operations / Plant Maintenance & Grounds	Plant Operations / Plant Maintenance & Grounds	4.92	2.46	4.06	\$34,912	\$12,202	4.82	2.08	2.90	\$36,579	\$25,559
Anesthesia	17450, Anesthesiology	4.38	0.62	1.82	\$23,625	\$16,075	3.83	0.52	1.85	\$30,497	\$17,508
Health Information Management with Medical Transcription	98700, Adm Health Information Service	1.92	0.57	0.98	\$17,885	\$12,366	2.12	0.81	1.57	\$17,255	\$7,281

Supply Chain Dashboard

	Apr - Jun 2014 (Q2)					Jul 2013 - Jun 2014 (recent year)					
	Relative Performance	Observed	Target	Median	Rank	Relative Performance	Observed	Target	Median	Rank	
UHC Key Performance Metrics											
Facility-Wide Supply Use											
Supply Expense (less Drugs)/Supply Intensity Score	(\$/pt)	●	1,053	745	847	59/ 64	●	1,069	742	855	63/ 68
Adjusted Discharge											
Supply Expense % Net Operating Revenue (WI-Adj)	(%)	○	17.3	17.0	20.5	19/ 66	○	17.6	17.3	20.5	18/ 67
Supply Expense Excl. Drugs % Net Operating Revenue (WI-Adj)	(%)	○	11.7	10.5	11.9	29/ 66	●	12.5	11.0	12.1	37/ 65
Supply Expense % Total Expense (WI-Adj)	(%)	○	22.1	20.7	23.7	24/ 66	○	21.9	20.6	23.3	25/ 69
Supply Expense/CMI-Adjusted Discharge	(\$/pt)	○	2,255	1,937	2,269	32/ 67	●	2,268	1,964	2,248	36/ 68
Supply Expense Excl. Drugs/CMI-Adjusted Discharge	(\$/pt)	●	1,531	1,214	1,378	50/ 67	●	1,614	1,242	1,376	53/ 67
Novation Purchases % Supply Expense Less Pharmacy 340B, Organ Procurement, Blood & Blood Products (Components)	(%)	●	10.2	37.4	31.5	47/ 48	●	10.9	40.3	33.2	49/ 51
Major Department Supply Use											
Cardiology Medical Supply Expense/Amb Pay Classifications	(\$/APC)	●	26.0	22.7	25.8	28/ 51	●	28.0	22.2	26.3	37/ 54
Imaging Medical Supply Expense/Amb Pay Classifications	(\$/APC)	●	14.0	8.0	9.9	46/ 52	●	13.3	8.1	10.1	50/ 56
Laboratory Services (Clinical Operation) Medical Supply Expense/CMI-Weighted Lab Adjusted Discharge	(\$/pt)	○	24.6	49.9	70.0	7/ 63	○○	24.4	58.9	74.8	2/ 62
IP Drug Exp/Rx Intensity-Weighted Discharge	(\$/pt)	●	479	290	360	57/ 65	●	451	305	365	56/ 66
Surgical Services Medical Supply Expense/Case	(\$/Case)	○	2,238	1,865	2,361	18/ 45	○	2,239	1,959	2,341	21/ 44

Supply Expense Drill Down

Definition - Supply Expense (less Drugs)/Supply Intensity Score Adjusted Discharge

(Total Supply Expense - Drug Expense) / (SIS * Adjusted Discharges). The target is the UHC 25th percentile.

Data older than 2013 Q4 are based on previous calculation methodology and will not be comparable to data from 2013 Q4 and going forward.

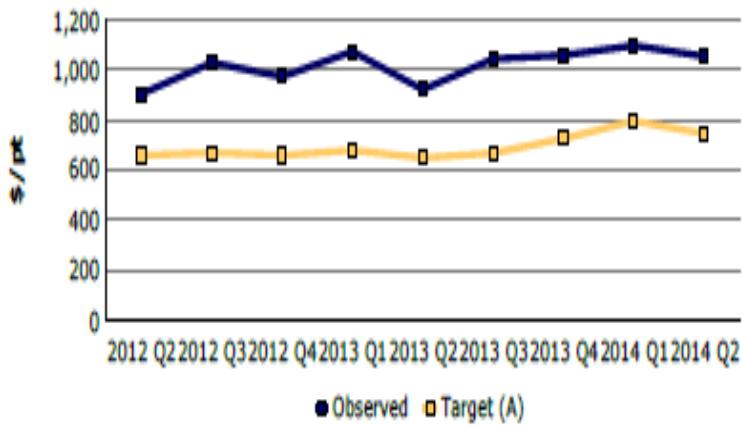
Data Source: UHC ODB-GFAC

Related Report: UHC Key Indicator Report, UHC Efficiency Management Report

Contact: Supply Chain Services, scd@uhc.edu

	Relative Performance	Observed	Target (A)	Median (A)	Rank
Current Quarter	●	1,053	745	847	59/ 64
Recent Year	●	1,069	742	855	63/ 68
	Current Quarter	Last Quarter	Recent Year		
Observed		1,053	1,096	1,069	
Target (A)		745	795	742	
Variance		308	301	327	
Total Supply Expense Excl. Drugs (\$000)		30,551	29,375	30,845	

Supply Expense (less Drugs)/Supply Intensity Score Adjusted Discharge



Benchmarks:	Percentiles:					
	Current Quarter (n)	10th	25th	50th	75th	90th
A) UHC Primary Population (64)		652	745	847	953	1,052
B) UHC CMI < 1.25 (30)		501	566	639	706	805
C) Level 1 Trauma and Disp Share (69)		662	761	858	955	1,052
D) Medicare CMI > 1.61 (162)		544	650	786	914	990
E) Maj teach 601 beds Level 1 (41)		662	752	829	931	992
F) Inner City Level I Trauma (19)		712	777	918	995	1,055
G) >200 solid organ transplants/yr (35)		657	732	788	910	950
H) UHC NIH Top Research (33)		661	760	842	912	958
Current Quarter UHC Top 10 In This Metric	Supply Exp/Net Op Rev	Supply Exp/Tot Exp	Supply Exp Excl Drugs/CMI Adj-Dischg	Supply Exp/CMI Adj-Dischg		
DENHEALTH	564	○○	○○	○○	○○	
WISCONSIN	598			○		
BEAUMONT-ROYALOAK	608			○	○	
NEBRASKA	635		○	○		
DUHS-DUKEHOSPITAL	636		○	○		
UPHS-PRESMEDCTR	648	○	○	○	○	
FLETCHER-ALLEN_FAHC	652	○	○	○	○	
VANDERBILT	654					
IOWA	660			○	○	
PARTNERS-MASSGEN	662	○○	○	○	○	

UHC Safety Intelligence™

UHC Safety Intelligence™ Software, powered by Datix

UHC Safety Intelligence™ Applied Learning

UHC Safety Intelligence™ Patient Safety Organization



Making hospitals a safer place to stay and work.

 UHC Safety Intelligence™

[Learn More](#)

A Shared Taxonomy Provides the Ability to Benchmark

- Since 2002, over 2.6 million events collected
- Over 100 sites representing:
 - 22,550 authenticated users
 - 31,000 staffed beds
 - 138 obstetrics / deliver and obstetric inpatient unit
 - 119 operating room departments
 - 114 emergency departments
 - 82 radiology departments / oncology Units
 - 61 blood banks
 - 33 pediatrics ICUs
 - 23 burn units

Comparison Groups by Bed Size

Bed Size Group	# Orgs	Total Staffed Beds
Ambulatory	17	0
1-100	16	812
101-300	22	4,392
301-500	20	7,866
501-700	22	11,583
700+	11	9,873
Total	108	34,526

Web Conferences

December 2, 2014: Getting the Dose Right: Preventing Weight-Based Medication Calculation Errors

Inaccurate dosing weights can lead to serious safety events. Barriers exist in obtaining, documenting, and maintaining accurate dosing weights in the electronic medical record. Join this webinar to learn how two organizations are addressing weight-based dosing errors.

June 17, 2014: Achieving Safer Care Centered on the Patient & Family

UHC organizations are present the impact of patient stories on safety culture, patient outcomes and patient and staff satisfaction; the effective spread of patient and family centered care in the academic medical center environment; the role of leadership in the success of changing a culture.

February 25, 2014: Ventilator Safety: Preventing Unplanned Extubations

Mechanical ventilation is a lifesaving intervention, but ventilators can pose significant safety risks when they malfunction, when disconnections or unplanned extubations occur, or when they are not used or set properly. Unplanned extubations were by far the most commonly reported ventilator event, demonstrating that this is a common safety hazard in hospitals. View this webinar to learn about the findings from an analysis of ventilator-related adverse events and how two UHC organizations are preventing unplanned extubations.

January 15, 2014: Empowering Front-Line Staff to Address Patient Safety, Quality, Satisfaction and Finance

The University of Iowa Hospitals and Clinics created unit-based councils and a simple, standardized process for event investigation that increased staff accountability for patient safety at the local level, view this webinar to learn more.

UHC Safety Intelligence™ PSO

- Certified PSO in 2008, re-certified 2011
- SI PSO Members in 22 States
- AHRQ Common Formats compliant
- Integrated submission with UHC SI Event reporting module
- Over 1 million events collected from SI PSO Members
- Total PSO Submissions: over 100,000
- Regular NPSD submissions via PPC
 - *Over 78,000 events submitted to the PSOPPC ready for submission to NPSD*



UHC/AACN Nurse Residency Program™



UHC Nursing Quality Data Base (NQDB)

Un-blinded NDNQI® data
for UHC Members

Magnet scorecard

Ability to benchmark with
custom compare groups

Identification of better
performers to highlight
best practice



Center for Advancing Provider Practices (CAP2)

- Cited as best practice by The Joint Commission

Report areas include:

- Privileging
- Credentialing
- Competency Assessment
- Billing
- Human Resources

125 Organizations

25 States

19,000 APRNs and PAs

50 Specialty Areas

CAP2 CENTER FOR ADVANCING
PROVIDER PRACTICES
A National Collaboration of UHC and MCHC





APRN/PA Core Privileges at Great State Medical Center

Core Privilege List	UHC				Great State Medical Center	
	APRNs		PAs		APRN	PA
	Number of Hospitals	% of Total (43)	Number of Hospitals	% of Total (43)		
Write admission orders	34	79%	29	67%	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Write discharge orders	34	79%	29	67%		
Write transfer orders	33	77 %	29	67%	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Obtain history & physical	37	86%	35	81%		
Order & interpret diagnostic testing and therapeutic modalities	38	88%	35	81%	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Order & perform referrals and consults	37	86%	34	79%	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Order blood & blood products	32	74%	29	67%		
Order & manage conscious sedation	34	79%	32	74%	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Order inpatient non-schedule medications	32	74%	28	65%	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Order inpatient schedule (II-V) medications	23	53%	18	42%		
Order topical anesthesia	29	67%	28	65%	<input checked="" type="checkbox"/>	
Prescribes outpatient non-schedule medications	33	77%	31	72%	<input checked="" type="checkbox"/>	
Prescribes outpatient schedule (II-V) medications	30	70%	27	63%		
Incision & drainage with or without packing	28	65%	26	60%	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

UHC Imperatives for Quality (IQ) Program

Designed
to improve
performance
through
**“top to
bottom”**
participation

- Focuses improvement on national priorities
- Uses existing member data
- Offers flexible ways to participate
- Engages executive, service and unit-level staff
- VIP Tool – connects data to content
- Facilitated member networking

Best
Practices and
Member
Examples

Improvement
Collaboratives

Web
Conference
Member
Spotlights

Web-based
Tools &
Resources

Provides high return on investment

Measurable Results from Improvement Collaboratives

- Outcome data demonstrate that organizations participating in the IQ Program's improvement collaboratives have better outcomes and reduce patient harm at a greater rate than nonparticipants
- For example, participants in the Injuries Due to Falls and Immobility 2013 Improvement Collaborative reported progress in several areas:
 - Pressure ulcer rates decreased by 32.4% among collaborative participants but increased by 15.8% among nonparticipants over the same period
 - The rate of falls with injury decreased by 10.5% among participants, compared with an 18.7% increase among nonparticipants
 - Rates of venous thromboembolism and pulmonary embolism decreased by 22.5% among participants but only by 6.8% among nonparticipants

Imperatives for Quality – 2015 Collaborative Project Plan

Improve Q/A performance

- Patient experience: Nurse/Physician/Patient communication collaborative
- Mortality: Mortality review collaborative & ID of at risk patients
- Reducing patient harm: improving delirium in the ICU 7 reducing infection

Reducing variation and costs of care

- CV & Ortho: reducing bundled costs and improving quality
- Transplant; reducing bundled cost of and improving quality of, topical work groups for heart, kidney and liver and lung; focus on certification guidelines
- Reducing Labor costs: Optimizing the use of advanced practice providers
- Reducing supply costs in surgery, pharmacy and cardiology; compendium of cost savings ideas, plus checklist and individual member report

Improving Clinical integration

- Reducing Readmissions: Transition to Ambulatory Care (TCPI) & care management for frequently admitted and high utilizing patients (TCPI)
- Technology evaluation of real time patient satisfaction (TCPI)
- Capacity management: reducing LOS

Hundreds of Case Studies, Best Practices and Cases for Change on-line

CASE STUDY



AT A GLANCE

NAME
University Hospitals Case Medical Center

LOCATION
Cleveland, Ohio

SIZE
947 beds

MEMBER SINCE
1990

MEMBERSHIP
Full UHC member

SERVICE PROVIDED
Imperatives for Quality Program

KEY TAKEAWAYS

- To expand clinic capacity, offer new patients the option of an earlier appointment with a nurse practitioner.
- Ensure that the entire clinical team is comfortable with the new process and that the nurse practitioner is experienced in the clinical service and the practices of the specific clinic.
- Recognize that patients and referring physicians are willing to accept an appointment with a nurse practitioner to improve access to care.

Improving Patient Access by Changing the Outpatient Hepatology Nurse Practitioner Role at University Hospitals Medical Center

Hoping to improve appointment access for new patients, the option of seeing a nurse practitioner at an earlier time, University Hospitals Case Medical Center worked on expanding the role of the nurse practitioner in UHC's Advanced Practice Provider program. The change proved to be a success. For the 23% increase in nurse practitioner, the time to appointment dropped by a week. Physician and nurse practitioner satisfaction was also high.

Better Access to Care Needed

In 2009-2010, 2 hepatologists served the entire hospital, including the medical center and 7 regional affiliates responsible for the inpatient hepatology service, and post-liver transplant patients, weekly endoscopy clinics. A gastroenterology/hepatology nurse practitioner clinic was responsible for clinical research and patients with chronic liver disease.

Individuals who needed an initial evaluation by a hepatologist required an appointment. If a more immediate need arose from the referring provider directly to the hepatologist, usually resulted in an overbooked appointment schedule. This tactic was fine for patients who had a hepatologist readily available, but it did not help patients who were on their own efforts to triage, the hepatology team realized that not being seen as quickly as they needed to be.

On staff at University Hospitals since 1991, Anthony Antinori, MD, and the medical director for liver transplantation, "whelmed" with new patient referrals and recognition of patients into the practice. As a result, the hepatology nurse practitioner saw new patients as a way of improving patient access.



Improving Patient Survival

Sepsis



The Case for Change

Why Prioritize Sepsis?

- There is now an international focus on sepsis—the Surviving Sepsis Campaign, aimed at reducing global mortality from sepsis.
- UHC projects have shown that members have significant opportunities to reduce mortality through recognition of and response to complications and patient deterioration.
- One of the key drivers of inpatient mortality is sepsis. Overall, sepsis is the 10th most common cause of death in the United States.
- Although sepsis occurs in 3% of all UHC member hospitalizations, on average, 37% of inpatient deaths have a primary and/or secondary diagnosis of sepsis.
- Patients who are hospitalized with sepsis use higher-level care resources such as critical care and typically stay longer in the intensive care unit because of the need for high-intensity therapy, including mechanical ventilation. In addition, these patients use more resources such as pharmaceuticals, laboratory tests, and radiological diagnostics.

- Although progress has been made in understanding the pathophysiological processes of sepsis, sepsis continues to be difficult to identify and treat. Evidence-based recommendations for treatment and

Primary Measure

-

Quality Measures Required for Public Reporting

Date: 12/29/2014

Author: Kate O'Shaughnessy, project manager, Quality Operations
https://www.uhc.edu/docs/49018945_PublicReportingMeasures2013.pdf

Center to Advance Palliative Care (CAPC) 2014 National Seminar

UHC, an alliance of the nation's leading nonprofit academic medical centers and their affiliated hospitals, is proud to be a sponsor of CAPC's 2014 National Seminar: Pathways to Quality Palliative Care.

Date: 11/04/2014

Author: <https://www.uhc.edu/CAPCseminar2014>

IQ Schedule of Planned Projects (2014)

Date: 07/25/2014

Author: Cathleen Krsek

https://www.uhc.edu/docs/5555-6-15192_2014IQSchedule.pdf

Excellence in Caregiver and Patient/Family Communications

UNCs PICU increased daily documented communications between clinicians and families from 14% to 65% via an interdisciplinary Six Sigma project that included family advisers on the team.

Date: 04/09/2014

Author: <https://www.uhc.edu/20409>

Unique Features of UHC's Clinical Data Base (CDB)

Custom Comparators

Transparency

Drill-down Capability

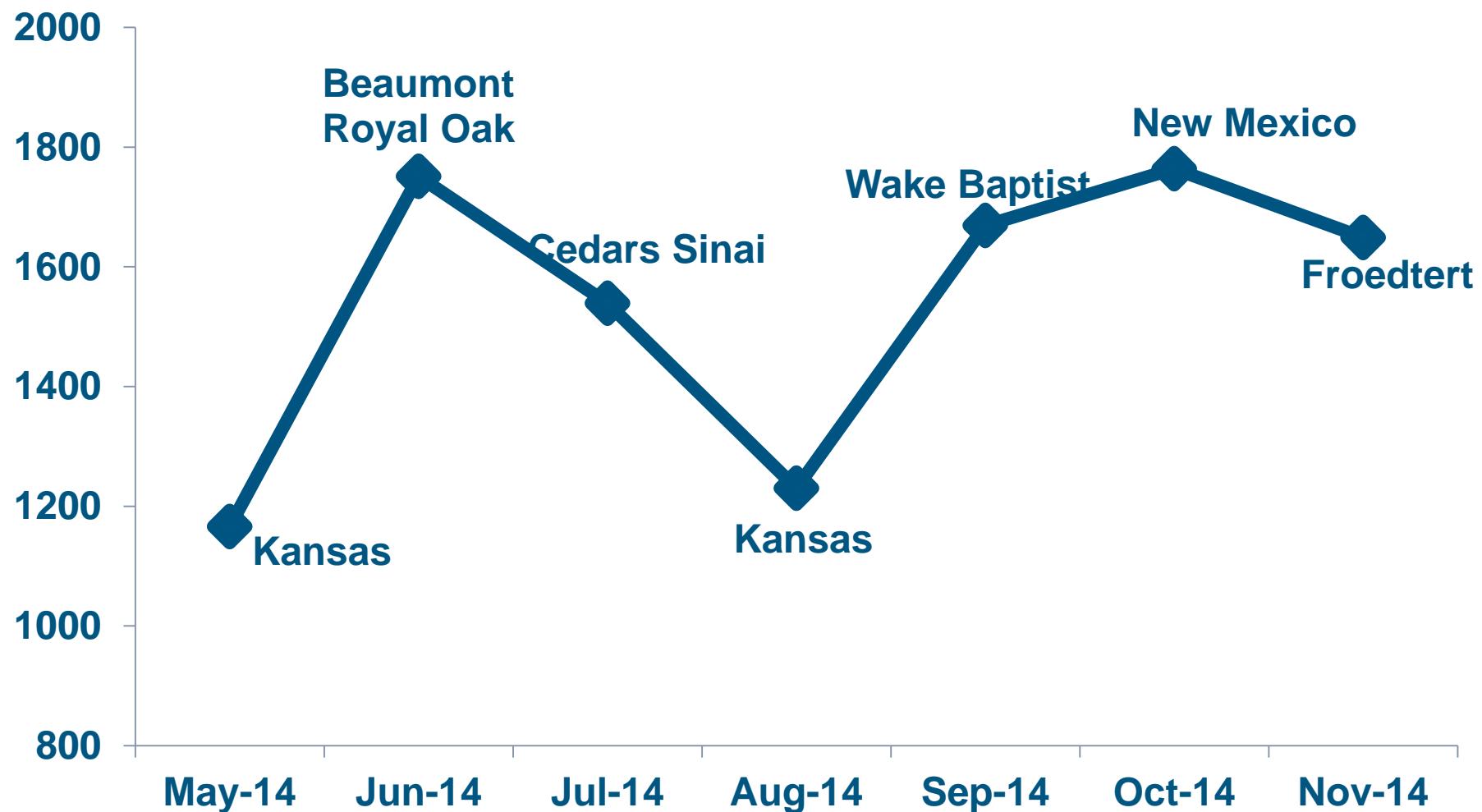
Networking & Collaboration

Expert Analytics & Support

Overall Cost

Hospital	Cases	Mean LOS (Obs)	Mean LOS (Exp)	LOS Index	% Deaths (Obs)	% Deaths (Exp)	Mortality Index
Hospital 1	27,002	6.3	5.8	1.1	2.4	2.4	1.0
Hospital 2	33,233	5.4	5.7	0.9	1.4	1.9	0.7
Hospital 3	29,712	5.6	5.8	1.0	2.7	3.5	0.8
Hospital 4	32,360	6.1	6.0	1.0	2.4	3.0	0.8
Hospital 5	50,524	5.8	5.9	1.0	2.0	2.5	0.8
Hospital 6	29,275	5.6	6.5	0.9	2.5	3.0	0.8
Hospital 7	49,548	5.8	5.9	1.0	1.5	2.5	0.6
Hospital 8	45,216	5.1	5.4	0.9	1.9	2.3	0.8
Hospital 9	27,715	5.3	6.0	0.9	2.3	3.0	0.8
Hospital 10	27,545	5.4	5.7	1.0	2.3	3.1	0.8

CDB Report Usage by Month



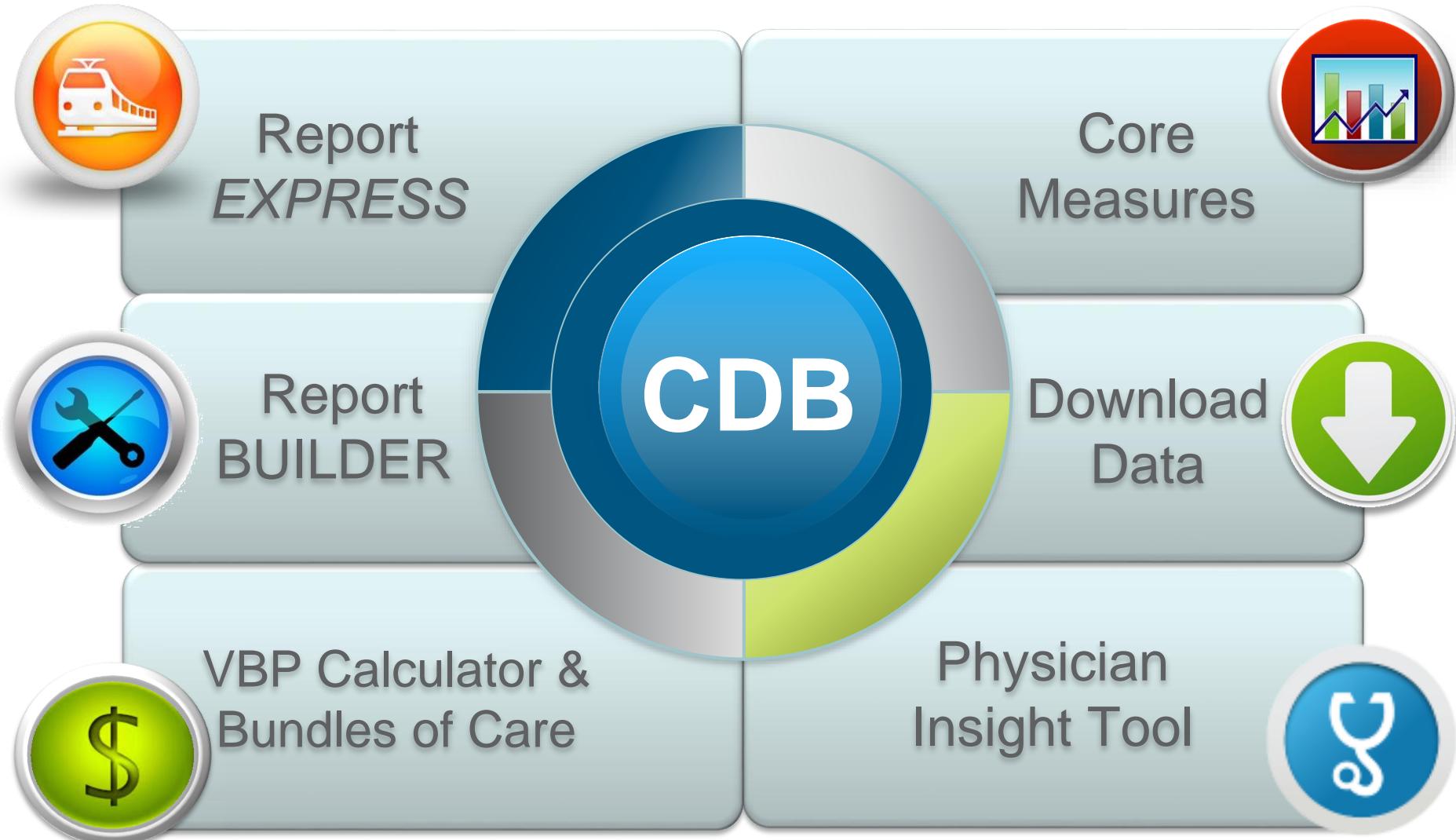
Larger Systems in the Clinical Data Base

Methodist – Houston
Memorial – Houston
St. Luke's – Houston
Cleveland Clinic
Partners
University of Massachusetts
University of Washington
Fletcher Allen
University of California
University of Colorado
BJC

Emory
Medstar
Johns Hopkins
Mayo
Indiana University
Steward
LA County
Duke
University of Nebraska
St. Luke's – Kansas City

Systems use the CDB to develop system level combined and individual scorecards to monitor improvement efforts, and to achieve economies of scale in data and analytics

Components of the Clinical Database (CDB)



Core Measures Reporting Tool

- Access is included in the CDB fee
- Supports:
 - MassHealth Program
 - All IPPS and OPPS measure sets
 - Get with the Guidelines®
- UHC serves as an intermediary to both the CMS and Joint Commission
- Data can be sent as early as one week after discharging patient (in XML or CSV)



Heart Failure (Qtr 3 Yr 2014)

Master Account #:	99999999999903	Admission Date:	7/1/2014
Patient Identifier #:	TESTANTHF1	Discharge Date:	7/7/2014
Admission Type:	Emergency	Hispanic Ethnicity:	No
Primary Payer:	Medicare	Birth Date:	5/1/1979
Attesting Physician Code:	100099	Attesting Physician Specialty Code:	36 - Hand Surgery
Principal Diagnosis:	40401 - Mal hyp ht/kd I-IV w hf	Principal Procedure:	-
Other Diagnosis Codes:	Other Diagnosis Codes	Other Procedure Codes:	

1. Patient's Birth Date: (Age)

5/1/1979
 If age < 18 years, the remaining questions are not required.

2. During this hospital stay, was the patient enrolled in a clinical trial with the same condition as the measure set being studied?

N - No or Unable to Determine (UTD)

(If Yes, the remaining questions are not required.)
 (Only patients in HF Clinical Trial)

3. When is the earliest physician/APN/PA documentation of comfort measures only?

2 - Day 2 or after

(If answered 1, 2, or 3, the remaining questions are not required.)

4. There is documentation of at least one of the following:

- Left ventricular systolic function (LVSF) assessment at anytime prior to arrival or during this hospitalization
- A plan for LVSF assessment after discharge
- A reason documented by a physician/APN/PA for not assessing LVSF

R - Reason Documented

5. Is the left ventricular systolic function (LVSF) documented as an ejection fraction (EF) less than 40% or a narrative description consistent with moderate or severe systolic dysfunction?

Y - Yes

(If answered No, question 6, 7, and 8 are not required.)

6. Was an angiotensin converting enzyme inhibitor (ACEI) prescribed at discharge?

Y - Yes

(If answered Yes, questions 7 and 8 are not required.)

7. Was an angiotensin receptor blocker (ARB) prescribed at discharge?

N - No or Unable to Determine (UTD)

(If answered Yes, question 8 is not required.)

8. Is there a documented reason for not prescribing BOTH an ACEI **AND** an ARB at discharge?

Y - Yes

Get With The Guidelines (GWTG) Data Collection

Questions below this point are optional

Audit Information

All major core measures sets available with data already loaded

Hospital Quality Measures Report

	Relative Performance	Denom	Observed	Target	UHC Median-TJC Method	Rank		Relative Performance	Denom	Observed	Target	UHC Median-TJC Method	Rank
Composite Measures (%)													
CMS Appropriate Care Measure	○	457	93.4	90.0	94.9	121/189		○	2,686	92.8	90.0	93.3	108/198
TJC Accountability Measure	○	1,889	91.6	85.0	96.5	167/193		○	8,298	92.4	85.0	95.5	149/201
HBIPS Composite	●	174	65.5	90.0	73.9	47/73		●	692	69.5	90.0	63.8	34/74
VTE Composite	●	167	86.8	90.0	93.1	145/180		●	695	88.8	90.0	91.3	115/188
AMI Composite	○○!	4	100.0	90.0	100.0	1/135		○○	178	98.3	90.0	100.0	86/145
STK Composite	○○	40	97.5	90.0	91.3	19/148		○	156	94.9	90.0	90.7	31/149
CAC Composite				90.0	91.4					90.0	93.5		
SCIP Composite	○	150	96.7	90.0	96.3	75/185		○	612	95.3	90.0	96.0	100/193
AMI Acute Myocardial Infarction (%)													
AMI-1 Aspirin at arrival	○○	88	98.9	95.0	100.0	164/182		○○	334	99.4	95.0	100.0	146/191
AMI-2 Aspirin prescribed at discharge	○○	84	100.0	95.0	100.0	1/169		○○	310	100.0	95.0	100.0	1/187
AMI-3 ACEI or ARB for LVSD	○○	20	100.0	95.0	100.0	1/161		○○	61	100.0	95.0	100.0	1/166
AMI-5 Beta blocker prescribed at discharge	○○	79	100.0	95.0	100.0	1/179		○○	289	99.7	95.0	100.0	113/190
AMI-7a Fibrinolytic therapy received within 30 mins of arrival				57.4	100.0								
AMI-8a PCI received within 90 mins of arrival	○○!	4	100.0	95.0	100.0	1/135		●!	19	89.5	95.0	100.0	127/146
AMI-10 Statin Prescribed at Discharge	○○	79	100.0	95.0	100.0	1/175		○○	295	99.7	95.0	100.0	91/188

HF-2 Evaluation of LVS function (%)

Definition: Heart failure patients with documentation in the hospital record that left ventricular systolic (LVS) function was evaluated before arrival, during hospitalization, or is planned for after discharge.

Denominator: Heart failure patients. Exclude patients less than 18 years of age; patients transferred to another acute care hospital; patients who expired; patients who left against medical advice; patients discharged patients with documented reasons for no LVS function evaluation; patients who had a left ventricular assistive device (LVAD) heart transplant procedure during the hospitalization.

Numerator: Heart failure patients with documentation in the hospital record that LVF was assessed before arrival, during hospitalization, or is planned for after discharge.

Target: The Joint Commission target lower limit.

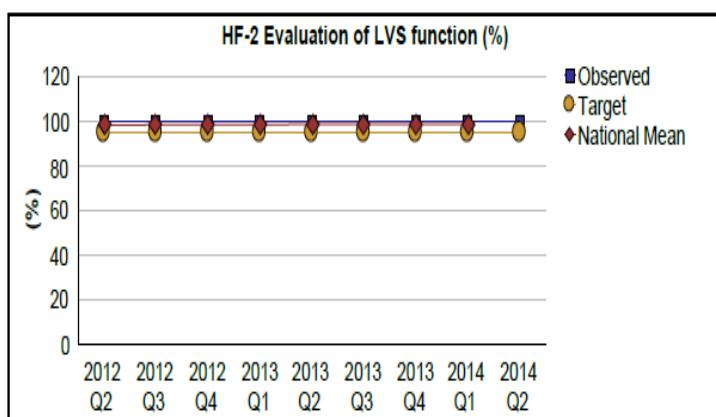
National Mean: The mean of all comparison group observed rates obtained from the Core Measure National Comparison Group File.

See Also: http://www.jointcommission.org/performance_measurement.aspx

Apr - Jun 2014 (Q2)

Jul 2013 - Jun 2014 (recent year)

	Relative Performance	Numerator (n)	Denom (n)	UHC Median-TJC Method			Target
				Observed	100.0	100.0	
Current Quarter	OO	76	76	100.0	100.0	95	
UHC Population							
	Value	%tile	10th	25th	50th	75th	90th
Cases (denom.)	76	62	29.0	54.0	71.0	90.0	138.0
Observed	100.0	0	100.0	100.0	100.0	100.0	99.8
Target	95.0						



	Relative Performance	Numerator (n)	Denom (n)	UHC Median-TJC Method	
				Observed	Target
Recent Year	OO	294	294	100.0	100.0

	Relative Performance	Numerator (n)	Denom (n)	UHC Population			
				Value	%tile	10th	25th
Cases (denom.)	294	59	111.0	215.0	279.0	369.0	
Observed	100.0	0	100.0	100.0	100.0	100.0	100.0
Target	95.0						

Recent Year UHC Top 10 Performers in This Metric	Observed	Denom
Lehigh Valley Health Network	100.0	1,496
Temple University Hospital, Inc.	100.0	1,167
Houston Methodist Hospital	100.0	1,017
Duke University Hospital	100.0	894
Northwestern Memorial Hospital	100.0	878
Indiana University Health	100.0	867
Beaumont Hospital, Royal Oak	100.0	819
Cedars-Sinai Medical Center	100.0	818
Wake Forest Baptist Health	100.0	766
University of Rochester Medical Center (Strong Memorial Hospital)	100.0	761

Download Capabilities

Downloaded data includes:

- APRDRG, risk of mortality, severity of illness
- Flags for AHRQ PSIs and IQIs
- Flags for readmissions
- Flags for CMS' HACs
- Flags for UHC's complications
- Risk adjusted expected values for mortality, LOS and costs



You have the ability to:

- Schedule downloads
- Determine which fields to download
- Download all other CDB hospitals' patient level data
 - Patient level data is de-identified

Physician Insight and Physician MASTER Tools

- Provides by-physician data
 - Assists members in satisfying The Joint Commission's OPPE requirements
 - Includes both inpatient and outpatient data
-
- These tools allow you to:
 - Report on multiple physicians simultaneously
 - Compare two internal and two external groups at a time
 - Zero in on specific physicians by role and specialty



A Snapshot Physician of Master Report

Hospital	Physician Name	Role	Specialty
Great State Medical Center	Dr. John Smith	Primary Care Physician	Unclassified
Great State Medical Center	Dr. Sam Smith	Referring	Cardiology
Great State Medical Center	Dr. Mary Brown	Primary Care Physician	Family Practice
Great State Medical Center	Dr. Keith Jones	Primary Care Physician	General Internal Med
Great State Medical Center	Dr. John Brown	Discharge	General Pediatrics
Great State Medical Center	Dr. John Doe	Admitting	General OB/Gyn
Great State Medical Center	Dr. John Smith	Primary Care Physician	Pulmonary/Crit Care
Great State Medical Center	Dr. Sam Smith	Primary Care Physician	Family Practice
Great State Medical Center	Dr. Mary Brown	Primary Care Physician	Pulmonary/Crit Care
Great State Medical Center	Dr. Keith Jones	Consulting	General Internal Med
Great State Medical Center	Dr. John Brown	Attending	Neo / Perinatal Med
Great State Medical Center	Dr. John Doe	Discharge	Cardiology
Great State Medical Center	Dr. John Smith	Referring	General OB/Gyn
Great State Medical Center	Dr. Sam Smith	Attending	Cardiology
Great State Medical Center	Dr. Mary Brown	Discharge	General Internal Med
Great State Medical Center	Dr. Keith Jones	Primary Care Physician	Cardiology
Great State Medical Center	Dr. John Brown	Consulting	Gastroenterology
Great State Medical Center	Dr. John Doe	Secondary Procedure Physician	Neurosurgery



2015 VBP Calculator – Great State

CPC	51
HCAHPS	31
OUTCOME	25
EFFICIENCY	NR

	Current	Adjusted
Annual Medicare Revenue	\$60,621,593	\$60,621,593
Earn Back	\$680,840	\$921,707
Holdback	\$909,324	\$909,324
Net	(\$228,484)	\$12,383
Difference Due To Adjustment: \$240,868		

CPC	69
HCAHPS	31
OUTCOME	25
EFFICIENCY	NR

[Submit Adjustments](#)

Clinical Process of Care Domain (CPC) 2011 Q4 - 2012 Q3 (Performance Period)						Patient Experience of Care Domain (HCAHPS) 2011 Q4 - 2012 Q3 (Performance Period)						Reset				
Measure	Cases	Performance Rate	Current Points (0 - 10)	National Median	Load UHC Core Measure Data		Target	Adjust Score	Adjusted Points (0 - 10)							
					Core Measure Data	Reset (2012 Q1 - 2012 Q4)				Measure	Performance Score	Current Points (0 - 10)	National Median	Target	Adjust Score	Adjusted Points (0 - 10)
AMI-7a	0	N/A	N/A	80.00	100.00	Insufficient Cases			N/A	Nurse Communication	79.00	3	76.56	85.70	79.00	3
AMI-8a	36	97.00	4	95.35	100.00	97.00	97.00	4		Doctor Communication	76.00	0	79.88	88.79	76.00	0
HF-1	184	93.00	0	94.12	100.00	100.00	100.00	10		Responsiveness	66.00	2	63.17	79.06	66.00	2
PN-3b	138	96.00	0	97.78	100.00	100.00	100.00	10		Pain Management	66.00	0	69.46	78.17	66.00	0
PN-6	50	92.00	5	95.92	100.00	92.00	92.00	5		Medications	59.00	0	60.89	71.85	59.00	0
SCIP-Inf-1	571	100.00	10	98.64	100.00	100.00	100.00	10		Cleanliness and Quietness	66.00	2	64.07	78.90	66.00	2
SCIP-Inf-2	580	99.00	5	98.64	100.00	99.00	99.00	5		Discharge Information	87.00	6	83.54	89.72	87.00	6
SCIP-Inf-3	544	98.00	5	97.49	100.00	98.00	98.00	5		Overall Rating	71.00	2	67.96	83.44	71.00	2
SCIP-Inf-4	136	98.00	5	95.80	99.77	98.00	98.00	5		Consistency Score (HCAHPS) 2011 Q4 - 2012 Q3 (Performance Period)						
SCIP-VTE-2	657	100.00	10	97.40	100.00	100.00	100.00	10		Measure	Current Points (0 - 20)	Adjusted Points (0 - 20)				
SCIP-Card-2	271	99.00	7	97.18	100.00	99.00	99.00	7		Consistency Score	16					
SCIP-Inf-9	575	97.00	5	94.89	99.99	97.00	97.00	5		Outcome Domain 2009 Q3 - 2012 Q2 (Performance Period)						



UHC's Bundling Tool

- 3 years of hospital-specific inpatient data (**CDB/RM**)
- Hospital-specific costs from your institution where possible and market-adjusted averages where data is not available
- Augmented by payer claims data to “complete the episode”

Your AMC's
Anchor Inpatient Discharges

*UHC Clinical Data Base
UHC Financial Data Base
UHC Supply Chain*



Commercial & Medicare
Claims Data

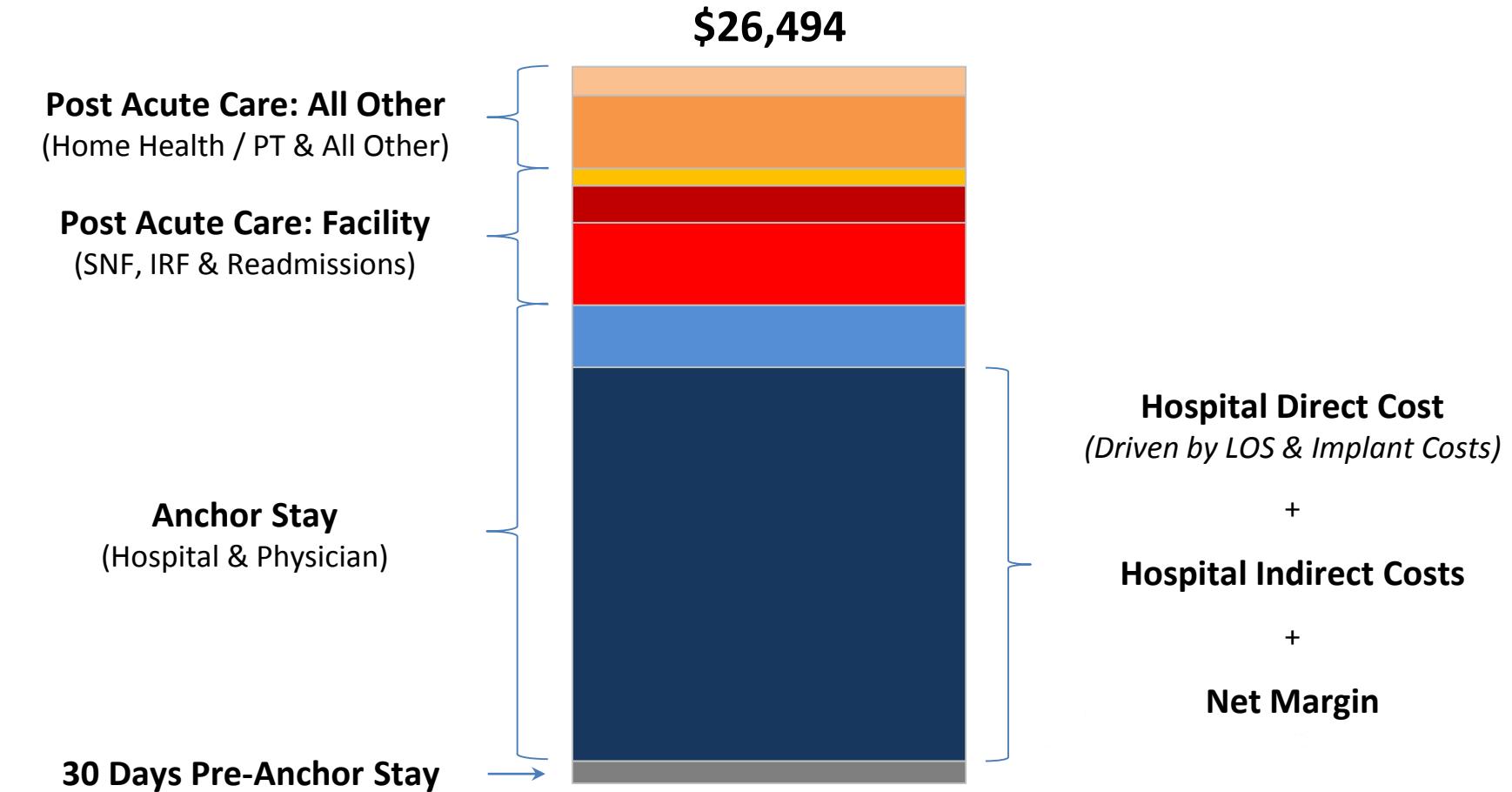
Milliman

Claims data will reflect each hospital's mix of anchor cases by MS-DRG and Discharge Status

A Typical Bundle Candidate...

Average Payments for a Knee Replacement Episode

Medicare, 30 Days Pre-Admission to 60 Days Post-Discharge



***Bundle financial performance driven by ability to manage LOS,
implant costs and post-acute facility utilization***

Flexible CDB Reporting Tools



Report
EXPRESS

→ Apply UHC's suite of performance scorecards



Report
BUILDER

→ Mine and organize the data *your way*

5 Groups: AEH Safety Net (29), AEH non safety net (23), US News 2014 Honor Roll (17), UHC's Q&A Winners (12), General Members > 250 beds (32)

Cardiology Inpatients Only

Timeframe: Q4 2013 – Q3 2013

Safety Nets

Hospital	Cases	% LOS Out	Mean LOS (Obs)	Mean LOS (Exp)	LOS Index	% Deaths (Obs)	% Deaths (Exp)	Mortality Index	% Early Deaths	% PSI	Mean Direct Cost (Obs)	Mean Direct Cost (Exp)	Direct Cost Index
	385	0.8%	3.81	4.51	0.84	4.68	4.62	1.01	2.86	0.52%	15,498	12,150	1.28
	538	0.6%	3.44	3.95	0.87	2.42	2.93	0.82	1.49	0.37%	10,612	9,845	1.08
	331	1.2%	3.09	3.52	0.88	3.32	2.79	1.19	2.72	0.00%	4,140	5,523	0.75
	736	0.5%	3.48	3.91	0.89	2.58	2.93	0.88	1.22	0.00%	8,959	8,260	1.08
	519	0.2%	3.49	3.89	0.90	3.28	3.3						
	349	2.0%	4.26	4.58	0.93	7.74	8.9						
	888	0.5%	4.31	4.55	0.95	2.48	2.8						
	234	0.4%	3.64	3.74	0.97	3.85	3.8						
	663	0.6%	3.80	3.89	0.98	4.37	3.8						
	762	0.4%	3.39	3.45	0.98	1.18	1.6						
	2,115	1.4%	5.94	5.69	1.04	5.34	5.4						
	718	0.3%	3.82	3.58	1.07	2.09	2.1						
	893	1.2%	3.88	3.62	1.07	0.34	0.8						
	595	0.8%	4.02	3.68	1.09	3.70	4.2						
	740	1.4%	4.61	4.16	1.11	3.38	3.6						
	415	1.0%	3.69	3.31	1.11	2.89	3.1						
	901	1.1%	4.21	3.77	1.12	3.44	4.0						
	1,590	0.9%	5.34	4.78	1.12	3.02	3.3						
	1,262	1.5%	4.60	4.09	1.12	1.11	1.2						
	753	1.2%	4.32	3.83	1.13	3.72	2.95	1.20	1.59	0.40%	9,079	9,503	0.91
	594	1.7%	4.90	4.33	1.13	3.54	4.54	0.78	2.36	0.17%	9,025	10,334	0.87

Ranges

Cases: 234 to 1,590

LOS Outliers: .2% – 2.7%

LOS Index: .84 – 1.45

Mortality Index: .78 – 1.43

Early Deaths: .11 – 2.86

% AHRQ PSIs: 0% - .9%

Cost Index: .75 – 1.77

AEH non Safety Nets

Hospital	Cases	LOS Outliers	% LOS Out	Mean LOS (Obs)	Mean LOS (Exp)	LOS Index	Deaths (Obs)	% Deaths (Obs)	% Deaths (Exp)	Mortality Index	% Early Deaths	% PSI	Direct Cost (Obs)	Direct Cost (Exp)	Direct Cost Index
	144	(0)	0.0%	2.70	3.76	0.72	5	3.47	3.13	1.11	2.78	0.0%	3,289	6,441	0.51
	133	(0)	0.0%	2.86	3.92	0.73	3	2.26	2.30	0.98	1.50	0.0%	3,352	5,604	0.60
	22	(0)	0.0%	2.77	3.42	0.81	1	4.55	3.02	1.51	4.55	0.0%	3,119	4,477	0.70
	504	(2)	0.4%	3.01	3.61	0.83	20	3.97	2.52	1.57	1.79	0.0%	13,861	9,219	1.50
	1,587	(4)	0.3%	3.62	4.17	0.87	14	0.88	1.65	0.54	0.44	0.2%	9,839	11,242	0.88
	538	(3)	0.6%	3.44	3.95	0.87	13	2.42	2.93	0.82	1.49	0.4%	10,612	9,845	1.08
	1,054	(3)	0.3%	4.26	4.75	0.90	29	2.	Ranges						
	354	(2)	0.6%	3.72	4.12	0.90	16	4.							
	2,195	(10)	0.5%	3.83	4.18	0.92	77	3.							
	1,557	(10)	0.6%	3.77	4.06	0.93	21	1.							
	1,387	(15)	1.1%	3.57	3.83	0.93	50	3.							
	1,637	(8)	0.5%	3.79	3.89	0.97	58	3.							
	2,831	(25)	0.9%	4.07	4.07	1.00	57	2.							
	169	(0)	0.0%	4.89	4.82	1.02	5	2.							
	2,115	(30)	1.4%	5.94	5.69	1.04	113	5.							
	845	(15)	1.8%	6.00	5.68	1.05	37	4.							
	3,735	(29)	0.8%	4.87	4.55	1.07	79	2.							
	1,231	(7)	0.6%	4.60	4.23	1.09	24	1.							
	1,228	(24)	2.0%	5.26	4.81	1.09	59	4.							
	740	(10)	1.4%	4.61	4.16	1.11	25	3.							
	545	(10)	1.8%	4.61	4.14	1.11	24	4.							
	1,924	(22)	1.1%	5.13	4.35	1.18	84	4.							
	2,079	(27)	1.3%	5.34	4.50	1.19	91	4.38	3.66	1.19	1.88	0.3%	13,799	11,469	1.20

US News World Report Honor Roll

	Cases	% LOS Out	Mean LOS (Obs)	Mean LOS (Exp)	LOS Index	% Deaths (Obs)	% Deaths (Exp)	Mortality Index	% Early Deaths	% PSI	Mean Direct Cost (Obs)	Mean Direct Cost (Exp)	Direct Cost Index
	4,071	0.5%	3.45	3.89	0.89	1.28	1.69	0.76	0.52	0.3%	9,016	12,271	0.73
	3,167	0.4%	3.91	4.40	0.89	2.62	2.52	1.04	1.29	1.3%	13,989	12,420	1.13
	1,170	0.8%	3.82	4.15	0.92	1.28	1.83	0.70	0.17	0.3%	16,939	12,616	1.34
	2,811	1.1%	4.70	4.64	1.01	3.02	3.12						
	7,554	1.3%	4.23	4.17	1.01	1.87	1.93						
	2,073	1.0%	4.52	4.33	1.04	2.85	2.69						
	845	1.8%	6.00	5.68	1.05	4.38	4.82						
	4,219	1.2%	5.47	5.18	1.06	3.37	3.48						
	2,174	0.8%	4.71	4.40	1.07	2.85	3.14						
	1,193	1.5%	4.88	4.45	1.10	3.10	3.27						
	1,993	0.8%	5.15	4.64	1.11	3.21	2.82						
	1,750	1.1%	4.97	4.47	1.11	2.46	2.45						
	1,792	1.8%	4.90	4.34	1.13	2.90	3.26						
	923	1.4%	4.70	4.15	1.13	4.23	3.69						
	1,969	1.2%	5.49	4.83	1.14	2.89	3.09						
	2,723	1.1%	5.53	4.59	1.21	3.60	3.33						
	3,020	1.4%	5.48	4.45	1.23	3.15	2.90						

Ranges

Cases: 845 to 7,554

LOS Outliers: .4% – 1.8%

LOS Index: .89 – 1.23

Mortality Index: .7 – 1.14

Early Deaths: .17% – 1.84%

% AHRQ PSIs: .3% - 1.5%

Cost Index: .73 – 1.87

UHC Q&A Top Hospitals

Cases	% LOS Out	Mean LOS (Obs)	Mean LOS (Exp)	LOS Index	% Deaths (Obs)	% Deaths (Exp)	Mortality Index	% Early Deaths	% PSI	Mean Direct Cost (Obs)	Mean Direct Cost (Exp)	Direct Cost Index
841	0.6%	3.18	4.19	0.76	3.45	4.47	0.77	1.78	0.5%	9,847	9,874	1.00
1,587	0.3%	3.62	4.17	0.87	0.88	1.65						
3,167	0.4%	3.91	4.40	0.89	2.62	2.52						
1,054	0.3%	4.26	4.75	0.90	2.75	3.78						
1,160	0.8%	4.41	4.80	0.92	1.21	2.04						
1,170	0.8%	3.82	4.15	0.92	1.28	1.83						
3,542	1.0%	4.35	4.23	1.03	1.58	2.32						
4,219	1.2%	5.47	5.18	1.06	3.37	3.48						
3,735	0.8%	4.87	4.55	1.07	2.12	2.46						
1,307	1.2%	5.12	4.47	1.15	1.76	2.72						
1,996	1.5%	5.95	5.11	1.16	3.56	4.02						
1,669	1.6%	6.00	4.84	1.24	4.31	5.24						

Ranges

Cases: 841 to 4,219

LOS Outliers: .3% – 1.6%

LOS Index: .76 – 1.24

Mortality Index: .54 – 1.04

Early Deaths: .43% – 2.10%

% AHRQ PSIs: .0% - 1.3%

Cost Index: .84 – 1.88

General Members > 250 beds

Cases	% LOS Out	Mean LOS (Obs)	Mean LOS (Exp)	LOS Index	% Deaths (Obs)	% Deaths (Exp)	Mortality Index	% Early Deaths	% PSI	Mean Direct Cost (Obs)	Mean Direct Cost (Exp)	Direct Cost Index
470	0.0%	3.81	5.28	0.72	4.04	4.82	0.84	2.34	0.0%	6,574	9,386	0.70
770	0.1%	2.97	4.00	0.74	5.45	4.86	1.12	3.64	0.3%	11,873	12,203	0.97
520	0.0%	3.37	4.47	0.75	2.12	2.90	0.73	1.92	0.2%	6,914	9,175	0.75
1,019	0.4%	3.29	4.33	0.76	3.73	4.13	0.90	2.26	0.2%	6,579	8,784	0.75
742	0.5%	3.28	4.27	0.77	3.10	3.26	0.95	1.89	0.1%	8,599	11,696	0.74
664	0.5%	3.26	3.83	0.85	2.56	2.98	0.86	1.05	0.2%	11,032	8,973	1.23
659	0.5%	3.38	3.86	0.88	3.34	3.36						
331	1.2%	3.09	3.52	0.88	3.32	2.79						
1,175	0.3%	3.53	3.93	0.90	3.15	3.08						
2,142	0.6%	3.39	3.77	0.90	1.73	2.26						
1,645	0.4%	3.54	3.91	0.91	2.86	2.71						
358	0.6%	4.03	4.37	0.92	2.23	3.84						
394	0.8%	3.90	4.15	0.94	2.54	2.59						
975	0.2%	3.45	3.65	0.94	2.67	3.42						
888	0.5%	4.31	4.55	0.95	2.48	2.85						
1,360	0.1%	3.68	3.88	0.95	1.62	1.99						
986	0.6%	3.82	4.02	0.95	2.54	2.90						
236	1.7%	4.64	4.87	0.95	2.54	2.27						
667	0.0%	3.49	3.66	0.95	1.05	2.46						
3,038	0.6%	3.93	4.11	0.96	1.94	2.46						
1,180	0.2%	4.20	4.37	0.96	2.63	2.83						
1,212	0.1%	3.87	3.99	0.97	2.39	2.50						

Ranges

Cases: 81 to 3,754

LOS Outliers: .0% – 1.7%

LOS Index: .72 – 1.82

Mortality Index: .43 – 1.74

Early Deaths: .45% – 3.64%

% AHRQ PSIs: .0% - .9%

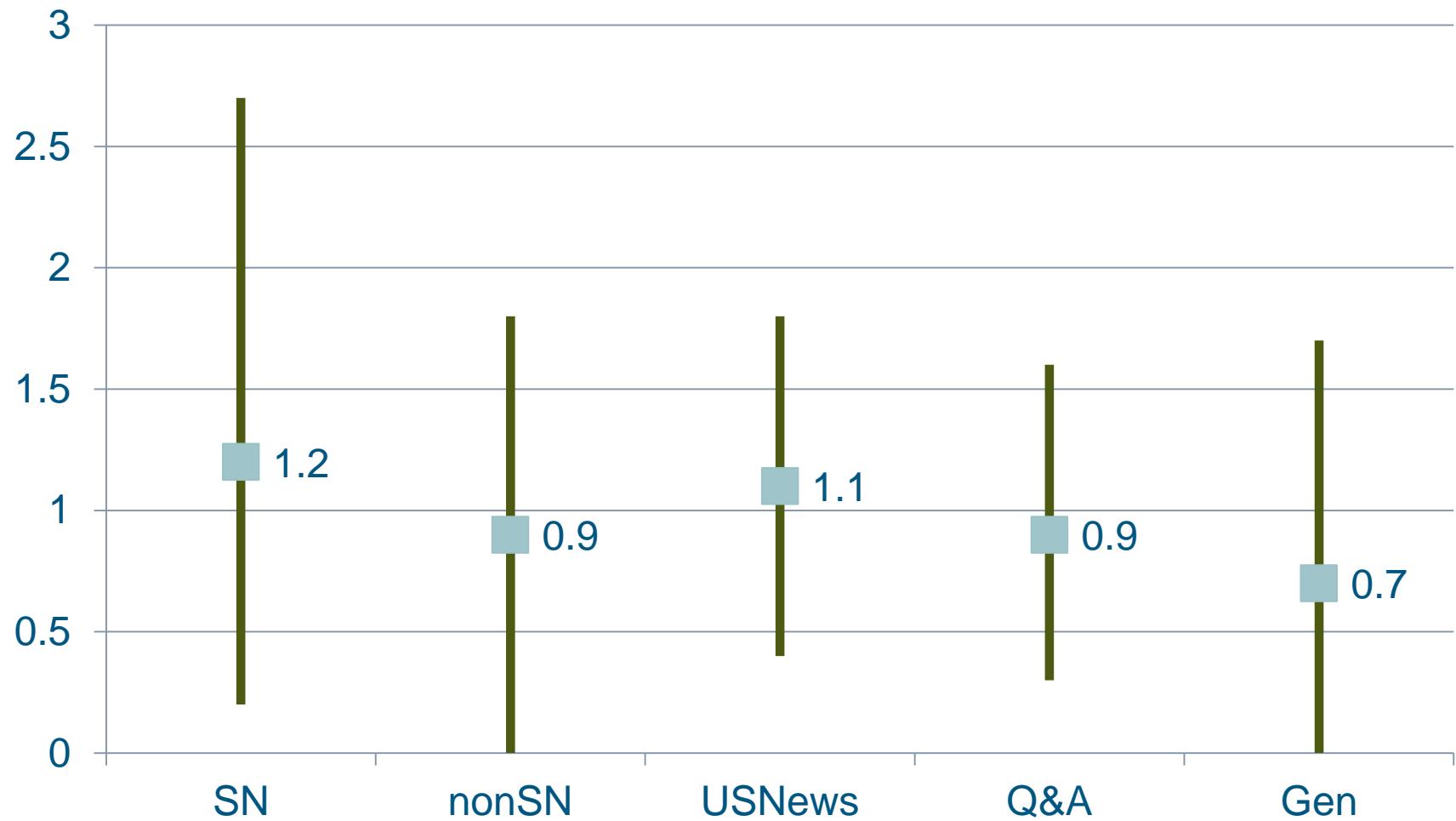
Cost Index: .55 – 1.46

Comparisons of the Five Groups

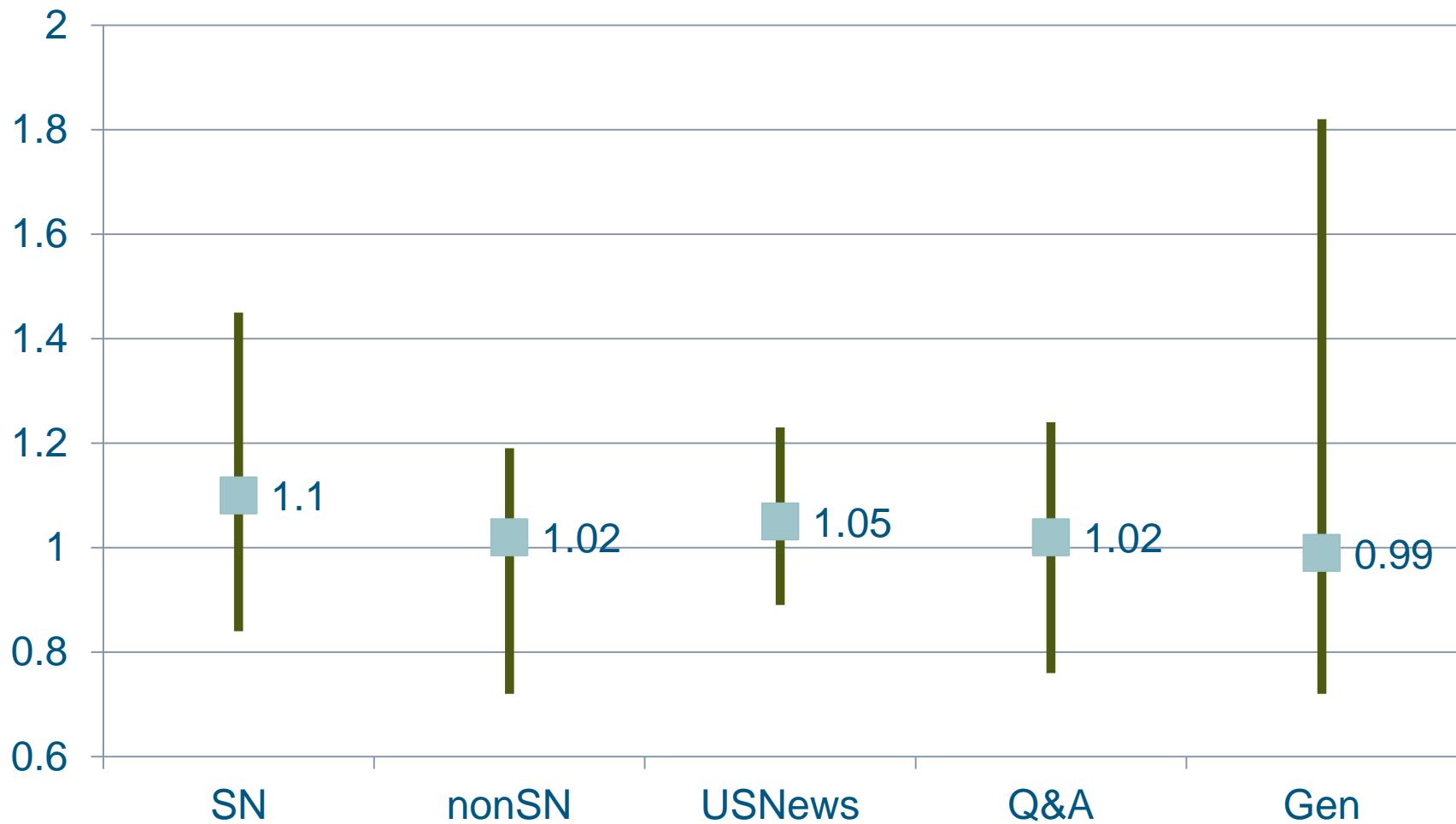
Hospital	Cases	% LOS Out	Mean LOS (Obs)	Mean LOS (Exp)	LOS Index	% Deaths (Obs)	% Deaths (Exp)	Mortality Index	% Early Deaths	% PSI	Mean Direct Cost (Obs)	Mean Direct Cost (Exp)	Direct Cost Index
Gen Mem > 250	36,623	0.7%	4.10	4.16	0.99	2.80	3.03	0.93	1.38	0.4%	9,969	10,456	0.95
Q&A	25,447	0.9%	4.72	4.62	1.02	2.46	2.96	0.83	0.99	0.6%	12,608	11,993	1.05
US News	45,310	1.1%	4.70	4.45	1.05	2.67	2.75	0.97	0.96	0.6%	12,825	12,120	1.06
AEH non SN	28,554	0.9%	4.50	4.40	1.02	3.17	3.26	0.97	1.29	0.6%	12,334	11,490	1.07
AEH SN	24,506	1.2%	4.66	4.24	1.10	3.00	3.08	0.97	1.29	0.4%	10,547	10,386	1.02

Diagnoses per quarter for each
Access to hospice
General Medicine – delete specialty hospitals

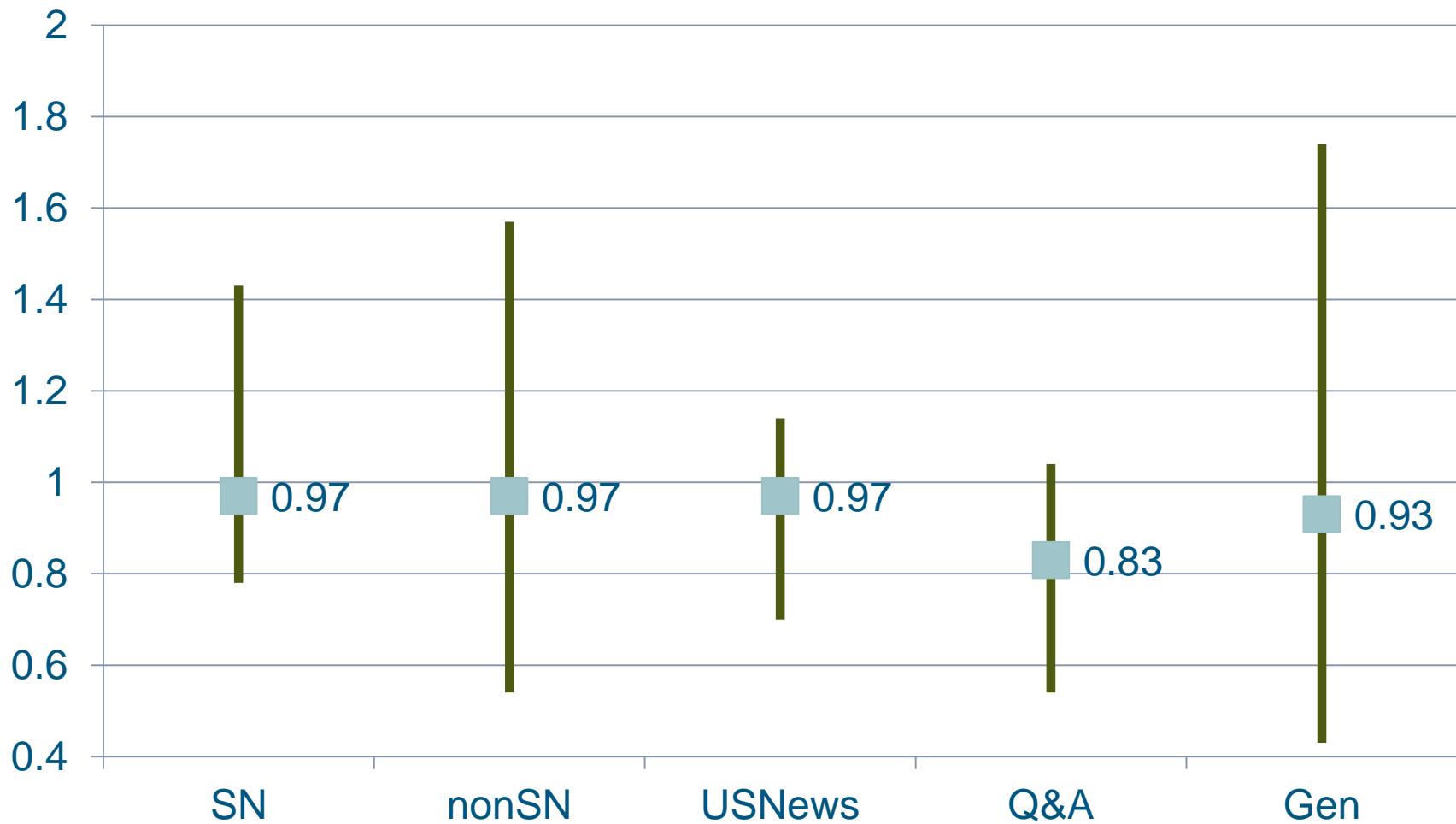
LOS Outliers



LOS Index



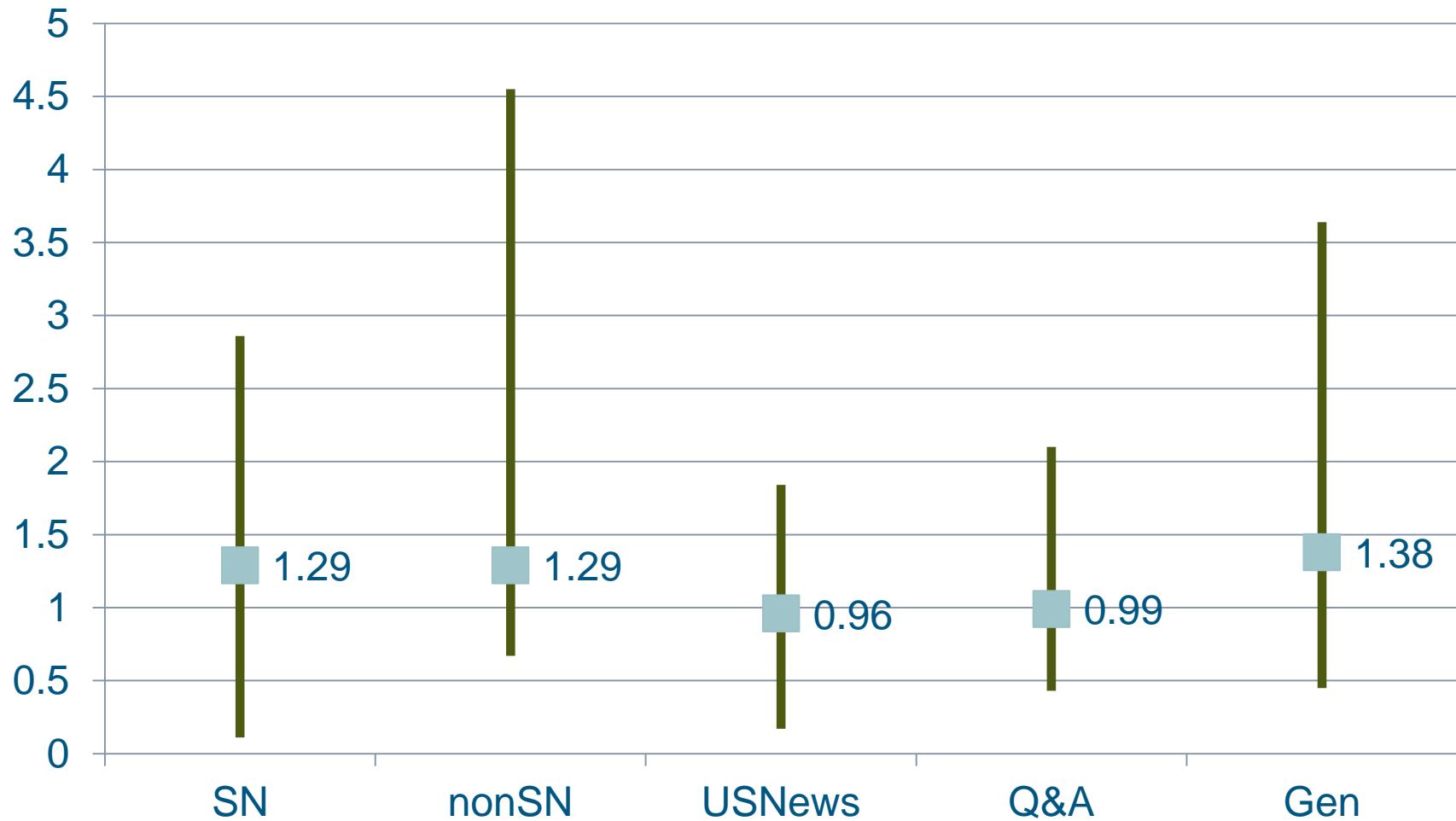
Mortality Index



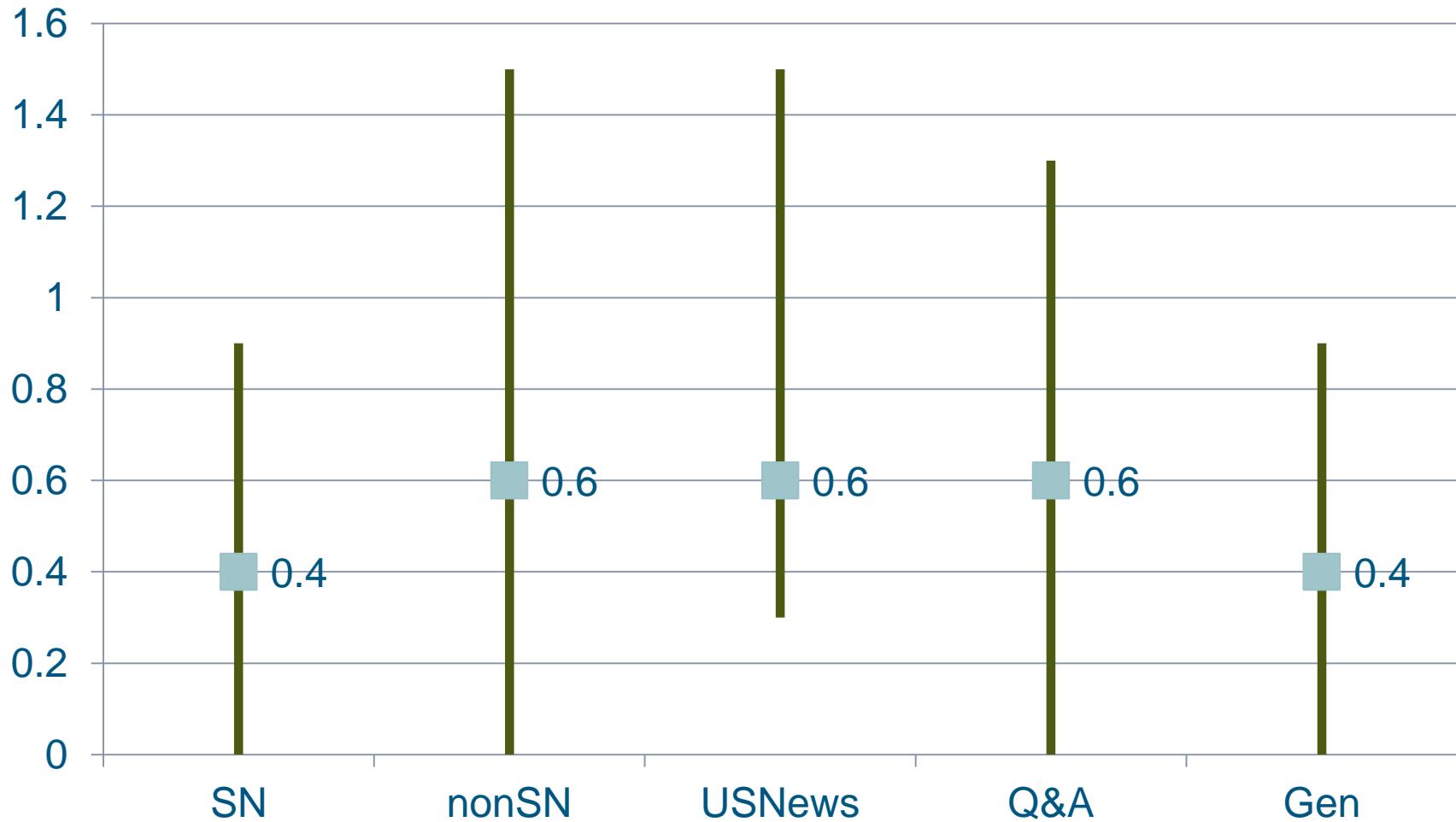
Mortality Observed and Expected

Group	Observed	Expected	Index
AEH Safety Nets	3%	3.08%	.97
AEH non Safety Nets	3.17%	3.26%	.97
US News	2.67%	2.75%	.97
Q&A	2.46%	2.96%	.83
General Members > 250	2.8%	3.03%	.93

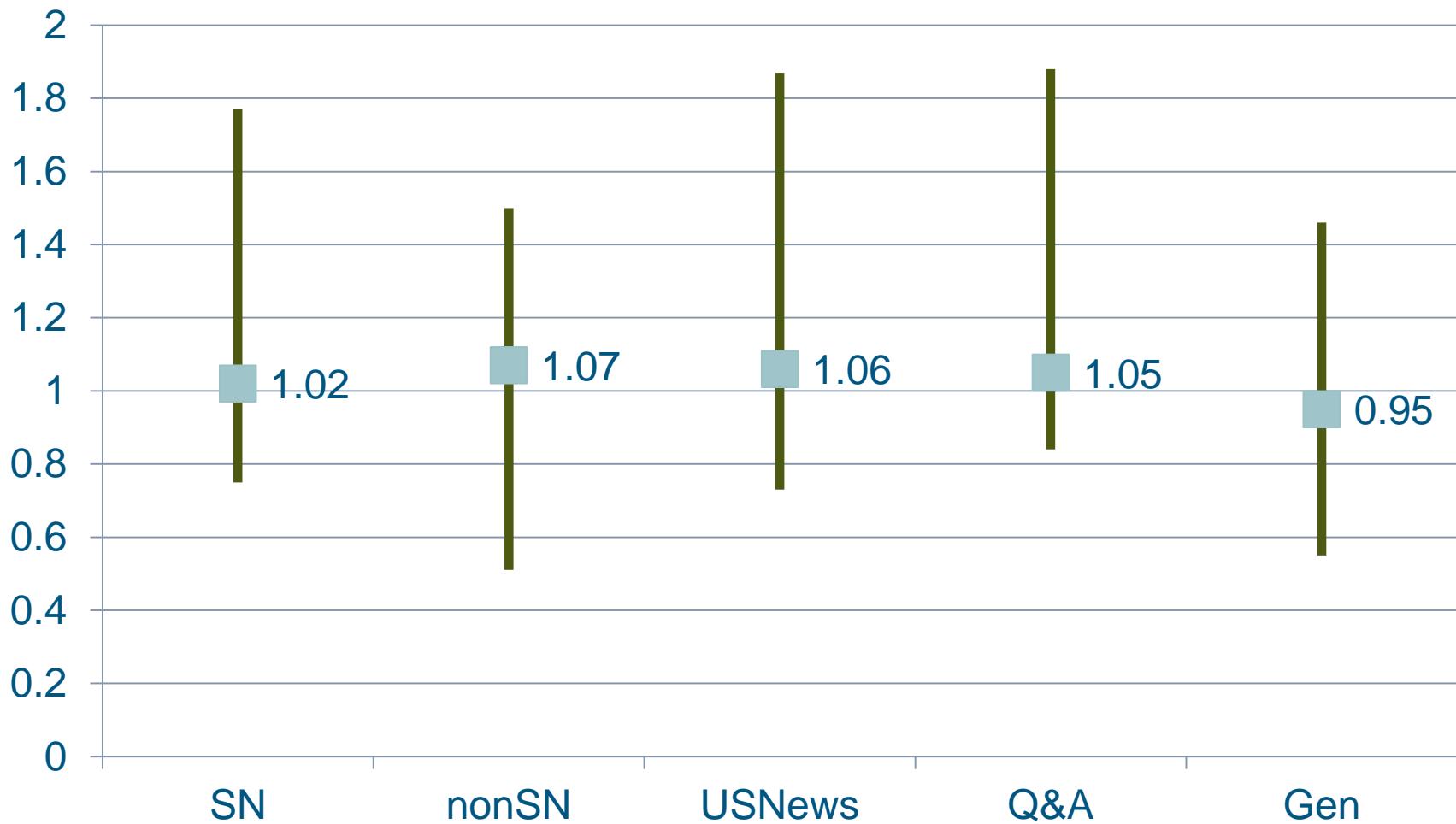
Early Deaths



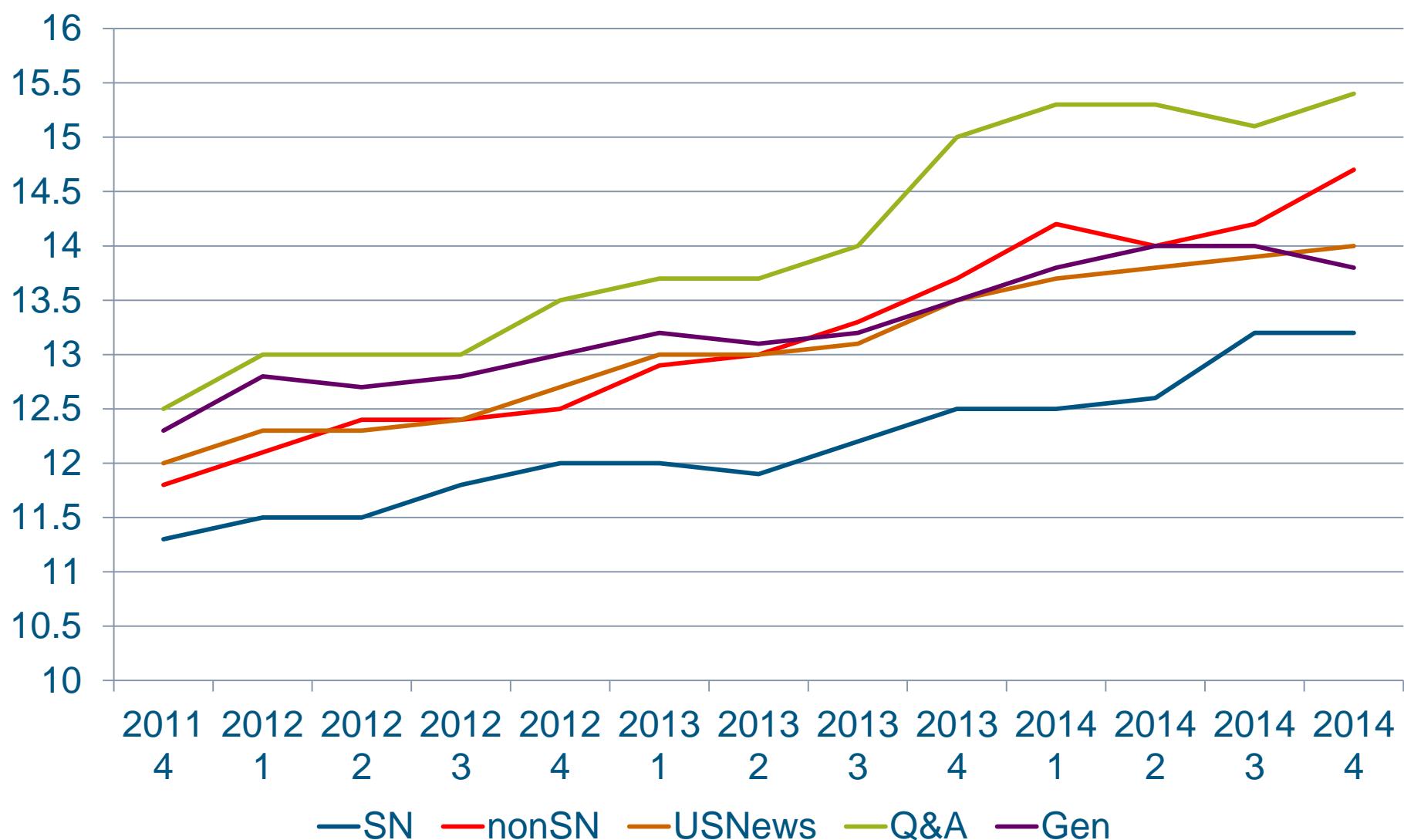
AHRQ PSIs



Cost Index



Number of Diagnoses per Case



Model Group: # 101 - (Age>=18) Heart failure & shock w MCC (MSDRG 291), Heart failure & shock w CC (MSD RG 292), Heart failure & shock w/o CC/MCC (MSDRG 293)

Model Diagnostics: Calculation: Chi-sq = 40.601 Validation: Chi-sq = 19.731, F = 0.486, p = 0.8646

Final: Max VIF = 1.123, Hosmer-Lemeshow = 79.937, p < 0.001, df = 8, C = 0.888

Mean Observed = 0.0251, Mean Expected = 0.0251

Cases = 117,700

Model Method = Logistic Regression

Model Results (Significant Predictors)

Explanatory Variable	Beta	OR	LCL	UCL	P-Value
Intercept	-5.524				
DNR	2.571	13.080	12.006	14.249	<.0001
Vent on Admission Day	2.247	9.458	8.108	11.034	<.0001
Shock	1.337	3.808	3.301	4.393	<.0001
Hypotension	0.554	1.741	1.500	2.021	<.0001
Other Pulmonary	0.542	1.720	1.250	2.368	0.0009
Severe Brain/Spinal Conditions	0.519	1.680	1.402	2.013	<.0001
Renal Disease/Failure	0.481	1.618	1.483	1.765	<.0001
Admit Source = Transf From Acute	0.477	1.612	1.433	1.813	<.0001
CC Malnutrition	0.460	1.584	1.382	1.815	<.0001
C. Difficile Enteritis	0.457	1.579	1.159	2.152	0.0038
Sepsis	0.456	1.578	1.201	2.072	0.0010
Acute Liver Disease	0.440	1.553	1.202	2.005	0.0008
CC Metastatic Cancer	0.428	1.534	1.203	1.957	0.0006
Admit Source = Transf From Skilled Nursing/Long Term Care	0.426	1.531	1.291	1.815	<.0001
CC Fluid & Electr Disorders	0.417	1.517	1.394	1.651	<.0001
Respiratory Failure	0.397	1.487	1.346	1.643	<.0001
Complication of Prior Care	0.360	1.434	1.183	1.739	0.0002
CC Coagulopathy	0.318	1.374	1.199	1.575	<.0001
CC Renal Failure	0.289	1.336	1.225	1.457	<.0001

The Effect of DNR Coding

Hospital	Cases	% Comp	% Deaths (Obs)	% Deaths (Exp)	Mortality Index	cases coded with DNR				
			Cases	%	% Deaths (Obs)	% Deaths (Exp)	Mortality Index			
	462	0.22%	1.08	0.76	1.42	9	1.95%	11.11	9.26	1.20
	650	2.00%	2.46	2.99	0.82	96	14.77%	12.50	14.70	0.85
	586	1.54%	0.85	1.73	0.49	46	7.85%	10.87	12.75	0.85
	440	1.59%	2.27	2.66	0.85	60	13.64%	15.00	13.80	1.09
	1,193	2.18%	1.59	3.35	0.47	228	19.11%	6.14	13.85	0.44
	686	2.33%	2.62	3.19	0.82	141	20.55%	8.51	11.89	0.72
	226	0.88%	2.65	4.43	0.60	40	17.70%	12.50	18.52	0.67
	478	2.30%	2.93	3.66	0.80	104	21.76%	10.58	13.39	0.79
	930	1.61%	2.15	3.96	0.54	120	12.90%	11.67	22.58	0.52
	1,049	2.48%	3.24	3.38	0.96	92	8.77%	25.00	23.20	1.08
	499	2.40%	2.00	2.12	0.95	21	4.21%	19.05	13.45	1.42
	764	3.53%	1.83	2.25	0.81	33	4.32%	27.27	23.06	1.18
	208	0.96%	4.81	5.66	0.85	66	31.73%	15.15	15.86	0.96

The Effective Use of Hospice – Medical Oncology Patients

Hospital	Cases	Deaths (Obs)	% Deaths (Obs)	% Deaths (Exp)	Mortality Index	% Early Deaths	Hospice	% to Hospice	% Deaths (Exp)
	498	13	2.61	6.83	0.38	0.20	59	11.8%	23.73
	931	57	6.12	7.53	0.81	1.18	82	8.8%	20.61
	149	8	5.37	5.62	0.96	0.67	13	8.7%	16.47
	379	21	5.54	4.87	1.14	1.06	30	7.9%	14.06
	1,028	59	5.74	5.94	0.97	0.49	79	7.7%	20.69
	770	29	3.77	4.88	0.77	0.65	57	7.4%	20.34
	651	24	3.69	4.91	0.75	1.38	44	6.8%	13.72
	1,490	77	5.17	5.04	1.03	0.94	95	6.4%	18.53
	666	33	4.95	4.71	1.05	0.30	36	5.4%	19.91
	1,194	58	4.86	3.48	1.40	0.50	63	5.3%	15.39
	1,101	40	3.63	3.24	1.12	0.45	47	4.3%	16.00
	1,821	64	3.51	3.04	1.16	0.33	68	3.7%	13.59
	827	38	4.59	4.41	1.04	0.73	30	3.6%	21.31
	249	7	2.81	5.03	0.56	1.20	9	3.6%	18.37
	640	27	4.22	4.84	0.87	0.78	23	3.6%	22.19
	1,527	54	3.54	4.02	0.88	0.46	28	1.8%	20.46
	503	20	3.98	4.00	0.99	0.40		0.0%	
	360	13	3.61	5.09	0.71	0.83		0.0%	
	414	10	2.42	3.36	0.72	0.24		0.0%	