Physician Documentation Optimization

Presented by:

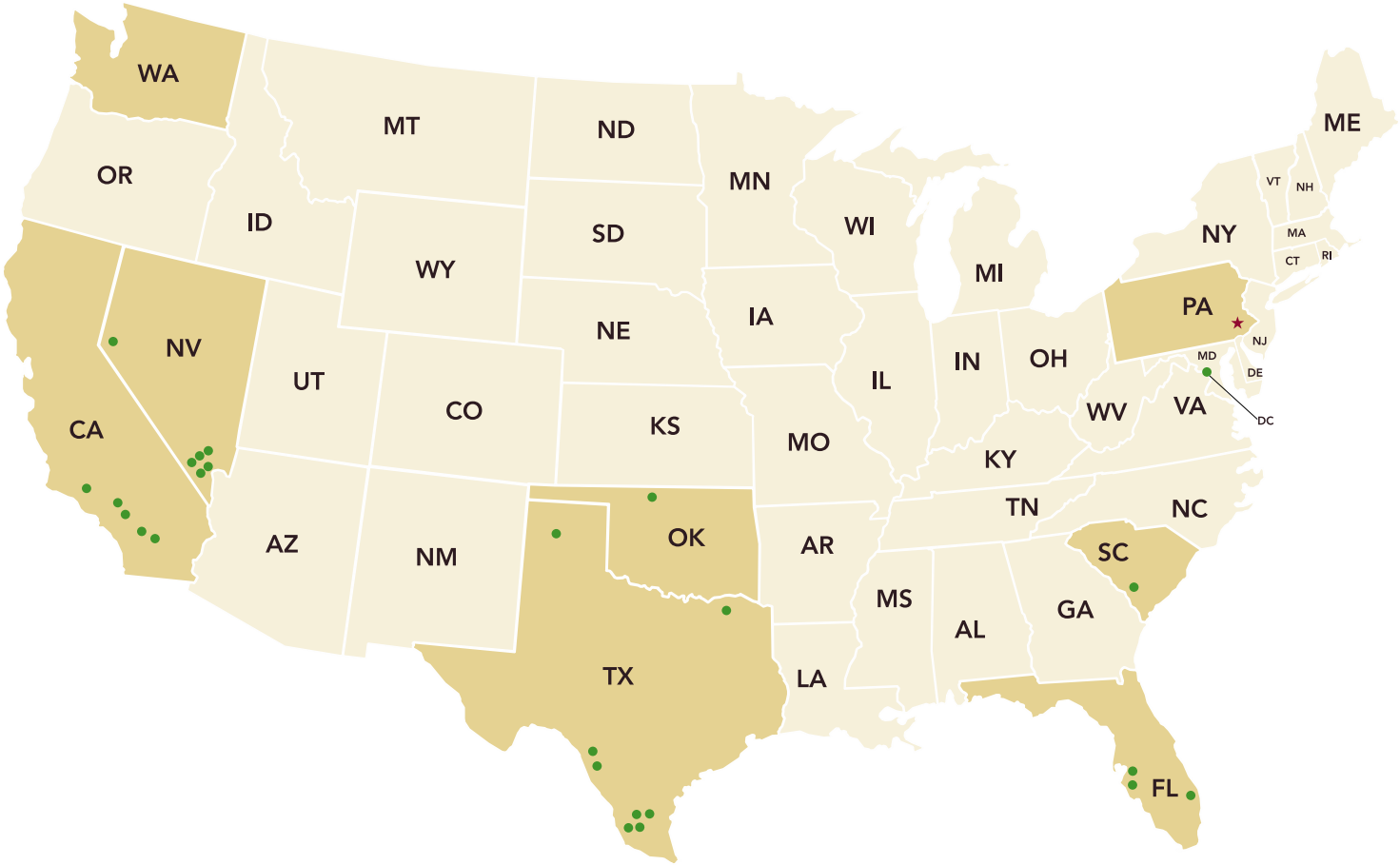
Ehab Hanna, MD, MBA – CMIO

Bruce Marcolongo – Sr. Director Information Services

UHS Universal Health Services, Inc.

UHS

- Fortune 500 Company Headquartered in King of Prussia with ~ $11 billion in annual revenue& 83K employees
- Own and operate ***27*** **acute care hospitals** & >300 behavioral health facilities in U.S & U.K



Physician Alignment

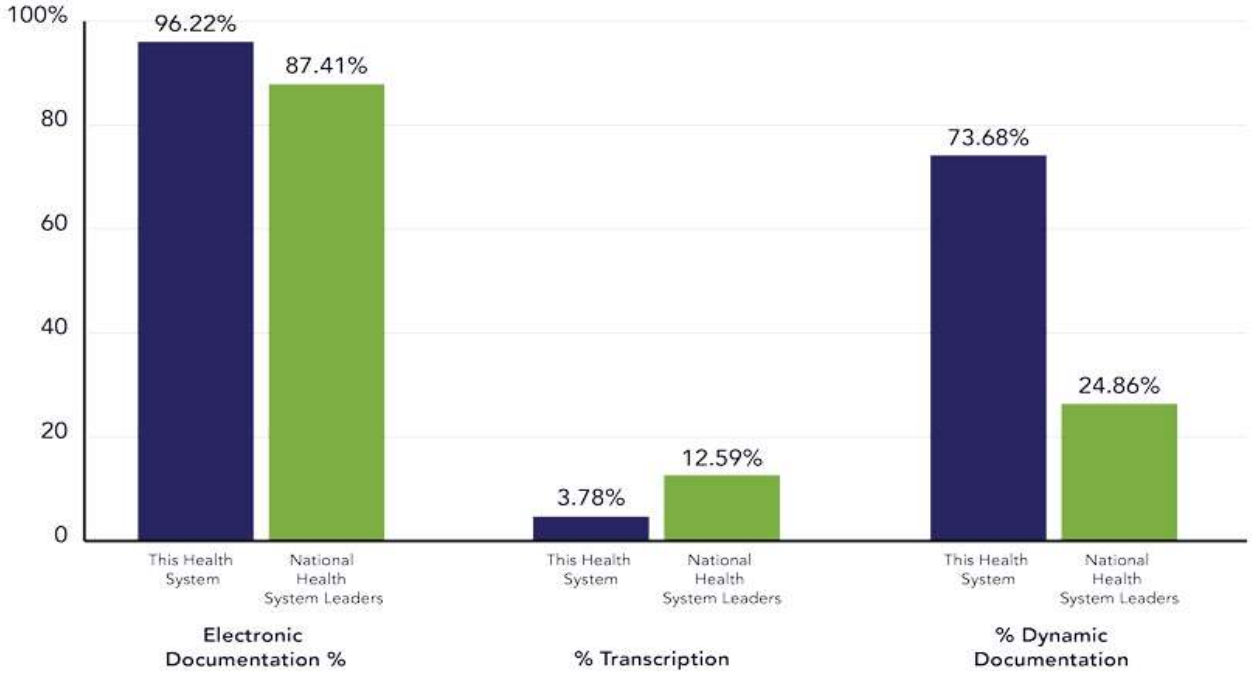
- Approximately 6,000 credentialed physicians
  - 2,250 active physicians
- UHS employs limited numbers of physicians:
  - 500 physicians
  - 115 practice locations
- All other MDs are independent physicians, some of whom split patients with competitors
- Challenge for us is to create a better EMR experience for physicians and nurses practicing in our facilities

Approach to Physician Documentation

- Previously inpatient physicians were primarily using dictation with mix of electronic & handwritten progress notes
  - Hybrid chart (EMR + Paper Record)
- Goal - to transition physicians off dictation and to the EMR
- UHS customized documentation tool included voice recognition system
- Focus on usability and efficiency with good adoption

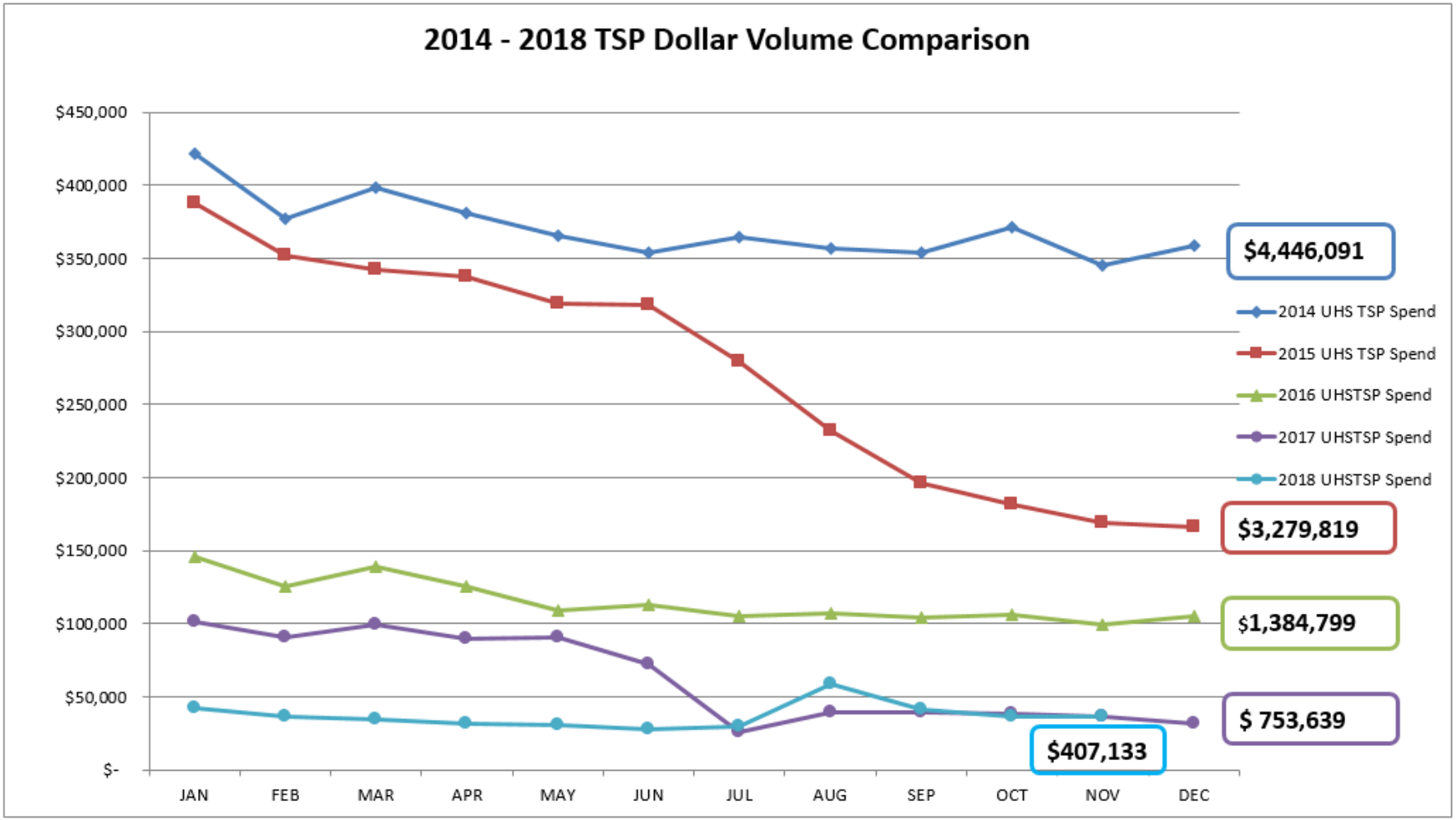
UHS Physician Documentation Utilization

- High electronic documentation adoption of **96 percent – 10 percent higher** than national health system leaders
- Reduction in transcription to **3.8 percent – 9 percent lower** than national health system leaders
- Significant use of dynamic documentation of **73.7 percent – 49 percent higher** than national health system leaders



Physician Adoption Results
Transcription Service Provider – Expense Reduction

(25%+ increase in Admits during these years)



DQR Project Background

- Use back end computer assisted coding
- Started looking into front end (physician) concurrent coding in 2015
  - Sought a solution that integrated well into existing physician workflow

Role of Documentation in Quality

- Hospitals and now Physicians are being measured on the quality of care delivered

- Metrics being monitored include:
  - **Severity of Illness (SOI)**
    - Indication of the complexity of your patients based on your documentation
  - **Risk of Mortality (ROM)**
    - Calculated based on the diagnosis and the degree of complexity (SOI)
  - **Observed/Expected Mortality (O/E Mortality)**
    - Compares observed mortality rates to the risk of mortality (ROM) rates calculated based on SOI documentation
  - **Length of Stay (LOS)**
    - Expected LOS is calculated based on the SOI documented.

- Each metric is dependent upon provider documentation that reflects accurate severity of illness

DQR

- An automated decision-support tool within physician documentation that analyzes clinical notes and responds in real time
  - Looks at all notes and evidence across an encounter
  - Assists in accurately reflecting the quality of care provided
  - Reflects actual acuity

- Prompts the physician for clarifications only when there is high confidence for additional diagnosis to most accurately reflect severity of illness (SOI)
  - Fewer retroactive coding queries

Sepsis Example

Physician documents Left Lower Lobe pneumonia with no other co-morbidities Documented

Current MS DRG 195 Simple Pneumonia & Pleurisy W/O CC/MCC

Clarification is fired from DQR noting that clinical documentation suggests the patient has sepsis. If accepted by the physician the DRG will be MS DRG 871 Septicemia/severe Sepsis w/o MV 96+ Hrs w MCC

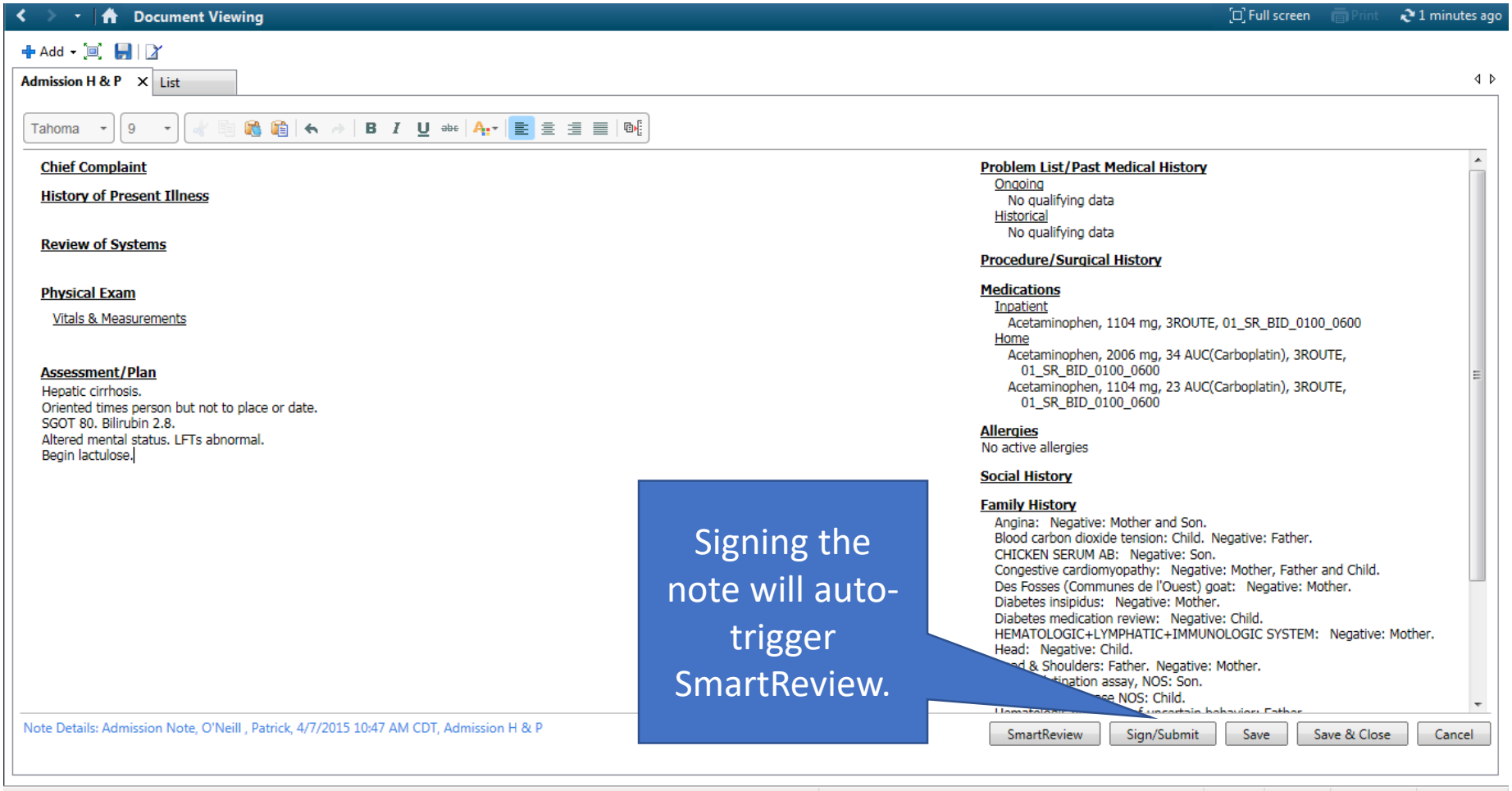
If you are treating a septic patient and your documentation reflects pneumonia there is a huge impact:

- *A septic patient has 30x the mortality rate of the simple pneumonia*
- *4x the expected complication rate*
- *2x the expected readmission rate*

Example	CODE	MS DRG	Mortality Expected	Complication Expected	Ave LOS Expected	Expected Readmission Rate
Pneumonia	J18.9	195	**0.55%**	**5.91%**	3.33	**7.89%**
Sepsis + Pneumonia	A41.9 J18.9	871	**14.80%**	**20.12%**	6.90	**16.12%**

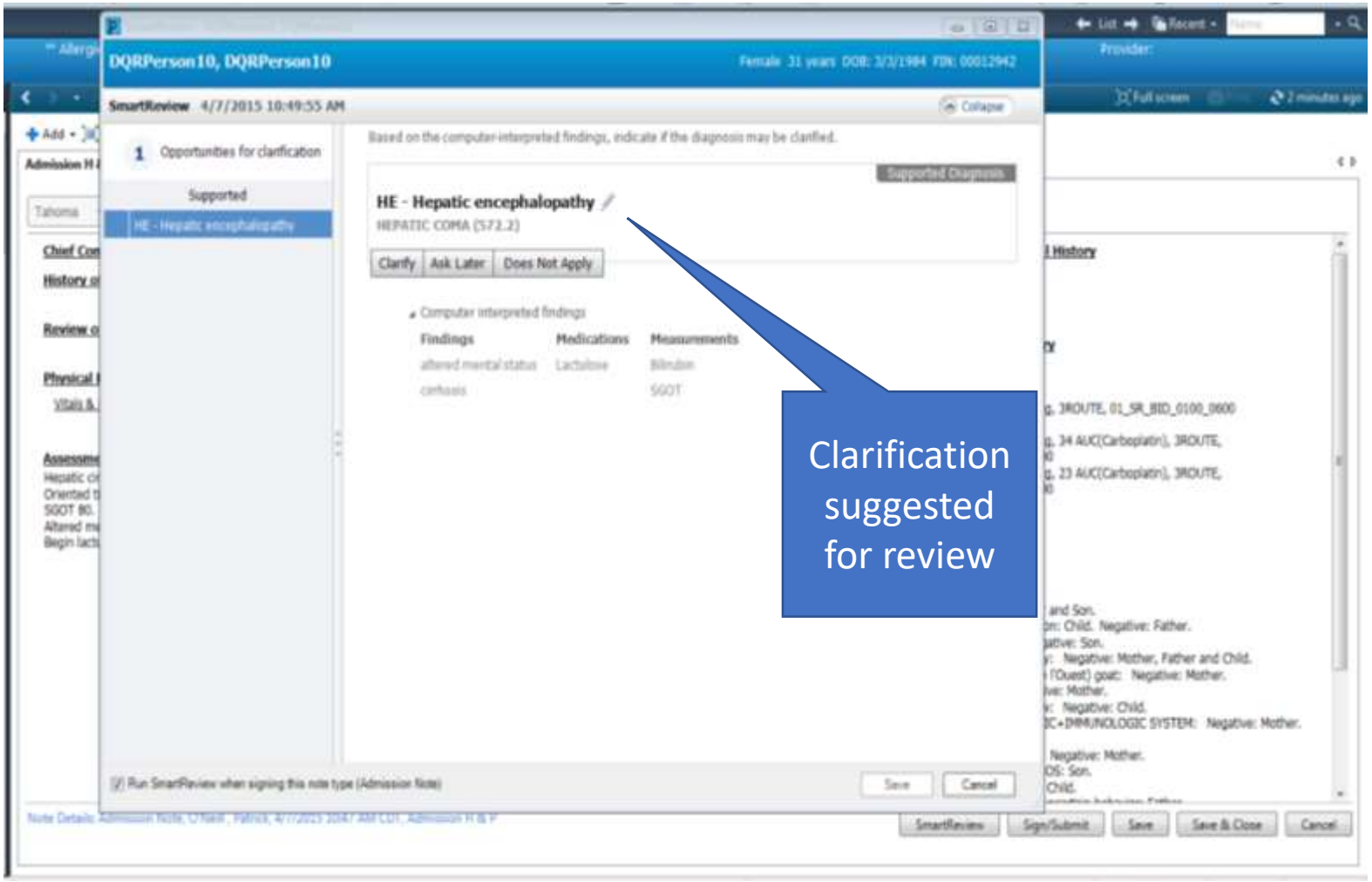
*Expected (Exp) Outcome Values based on specific Population with Proprietary analysis of Severity may vary with different population and assessment methods. For illustrative purposes only; based on real data.

How Does DQR Work?



Signing the note will auto-trigger SmartReview.

Clarification Found



DQR – How does it work?

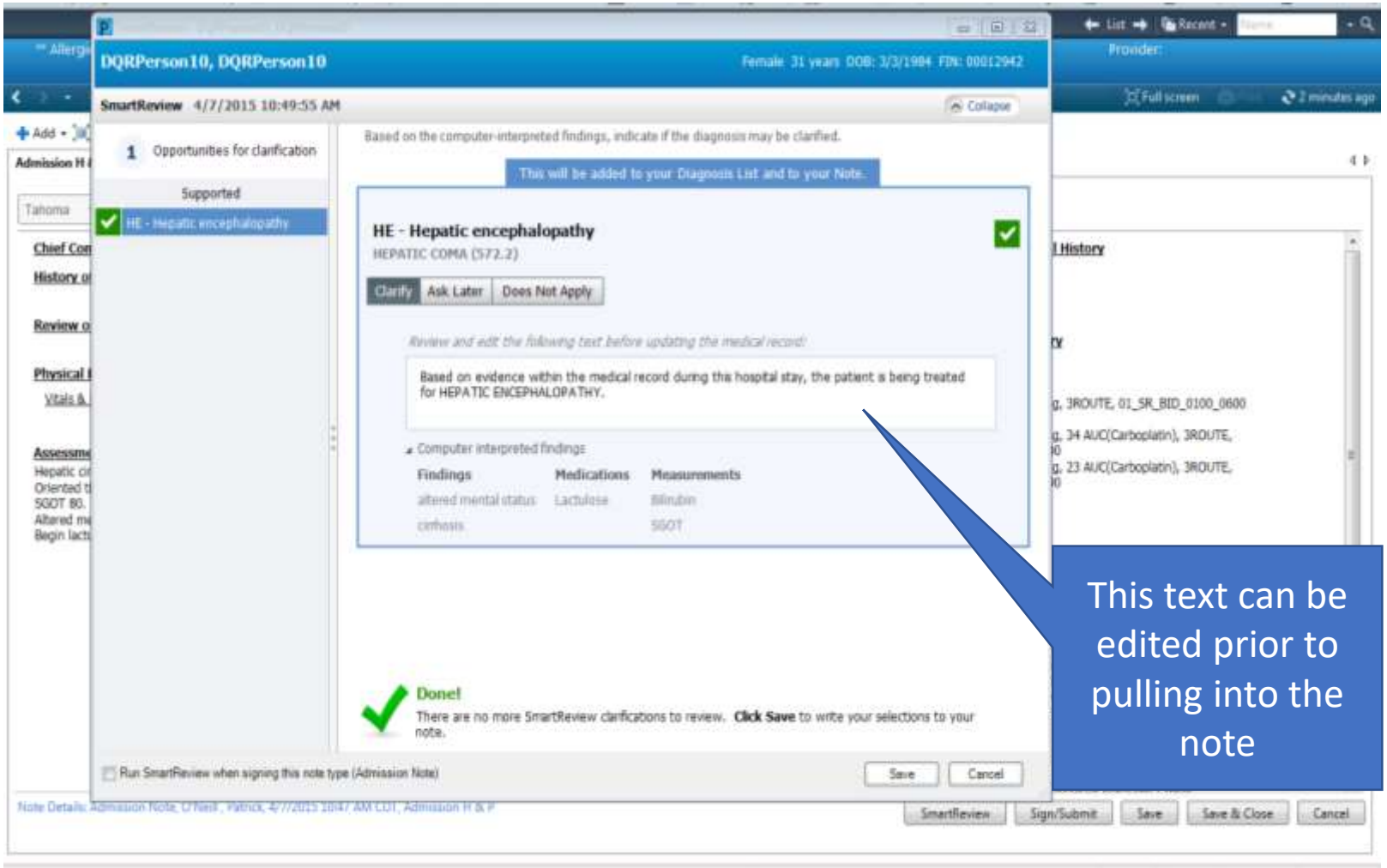
It is important that a response is chosen.

◆**Clarify:** Choose this if you agree with recommendations

◆**Ask Later:** Choose this if unsure.

◆**Does Not Apply:** Choose this only if you are sure the diagnosis proposed is incorrect

Clarification Accepted



Tenets of Good Clinical Decision Support

- Communicates the right information
  - Succinct and evidence / guideline based
- To the right person
  - Provider documenting patient care
- Using the right format
  - Usable alert
- Through the right channel
  - Physician documentation platform
- At the right time in the workflow
  - When completing a note

DQR – Medical Diagnostic Families
- Currently fires on approximately 70% of patients

- Encephalopathy
- Pneumonia
- Respiratory Failure
- Acute Exacerbation COPD
- Asthma
- Heart Failure
- Shock
- Malnutrition
- Renal Failure
- Anemia
- Sepsis

Deployment model

Data collection

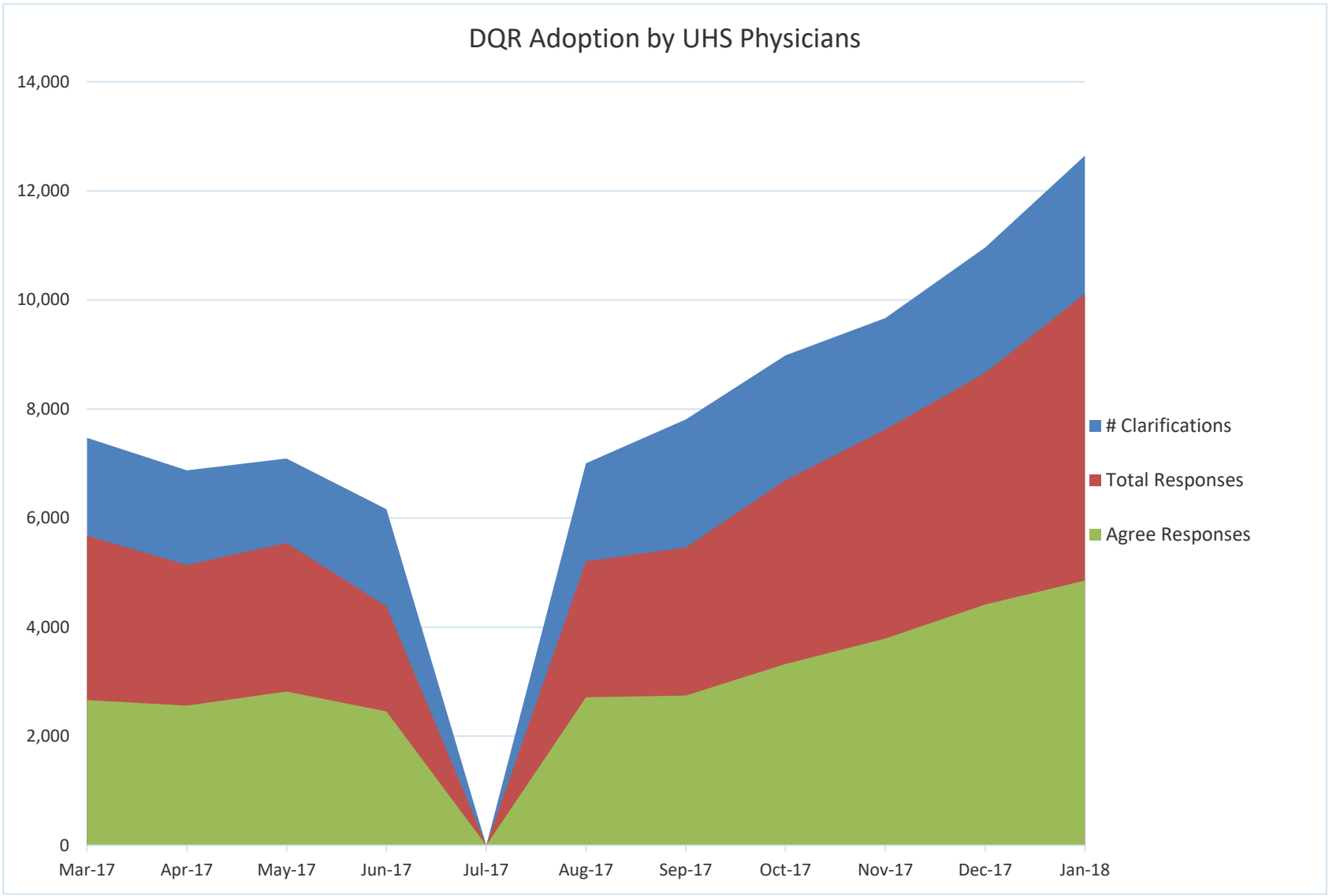
Facility	Percent Evaluated	Clarifications Unique	Total Responses	Agree Responses	DNA Responses	Response Rate	Agree Rate
Valley Hospital Medical Center	91.07%	996	740	261	479	74%	35%
Summerlin Hospital Medical Center	85.19%	1117	826	506	320	74%	61%
Henderson Hospital	84.36%	386	334	152	182	87%	46%
Fort Duncan Regional Medical Center (FDR)	83.99%	262	99	52	47	38%	53%
STHS	83.47%	1035	895	525	370	86%	59%
Spring Valley Hospital Medical Center	82.02%	797	658	414	244	83%	63%
Wellington Regional Medical Center	81.07%	457	402	129	273	88%	32%
Temecula Valley Hospital	79.48%	558	504	184	320	90%	37%
Aiken Regional Medical Center	78.88%	651	499	279	220	77%	56%
Northwest Texas Health (NWT)	75.86%	720	383	118	265	53%	31%
Corona Regional Medical Center (CRM)	73.41%	326	330	145	185	101%	44%
Centennial Hills Hospital Medical Center	71.92%	569	588	351	237	103%	60%
Southwest Health System - Inland Valley and Rancho Springs	71.20%	671	588	241	347	88%	41%
Desert Springs Hospital Medical Center	70.72%	673	496	211	285	74%	43%
Northern Nevada Medical Center (NNM)	70.34%	182	211	74	137	116%	35%
Texoma Medical Center (TMC)	68.87%	811	580	359	221	72%	62%
Doctor's Hospital of Laredo (DHL)	64.01%	381	277	177	100	73%	64%
St. Mary's Regional Medical Center (STM)	63.29%	170	137	68	69	81%	50%
George Washington University Hospital	61.02%	719	589	255	334	82%	43%
Palmdale Regional Medical Center	53.90%	359	349	177	172	97%	51%
Manatee Health System - Manatee	50.49%	669	514	152	362	77%	30%
Manatee Health System - Lakewood Ranch	42.76%	136	114	23	91	84%	20%
		12645	**10113**	**4853**	**5260**	**80%**	**48%**

Outcomes - Pilot

- Overall shift in capture of SOI and ROM from Minor/Moderate to Major/Extreme
- 36% improvement in capture of Extreme SOI
- 24% improvement in capture of Extreme ROM
- 12% CMI uplift across accepted encounters

Source: Metrics captured during a nine-week ROI study from June through August 2016 at two UHS facilities.

DQR MD Adoption at UHS



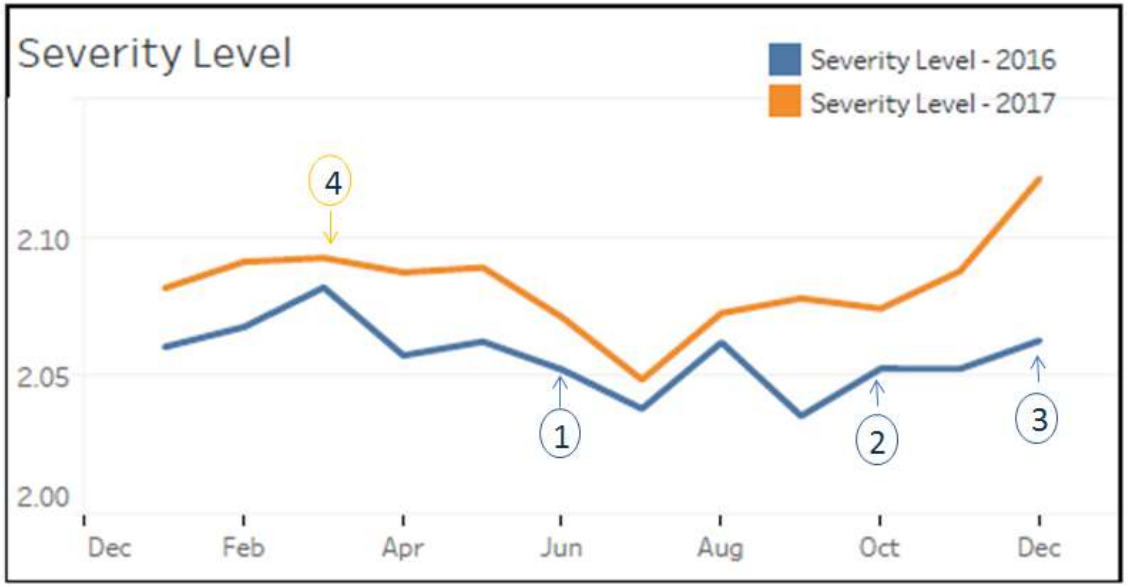
Improved documentation of severity level

1 - June 2016 Pilot:
Two facilities SoCal (27 MDs, primarily Hospitalists)

2 - October 2016:
Six hospital system Las Vegas

3 - December 2016:
Five hospital system S. TX
Four hospitals in FL, SC, TX

4 - March 2017:
Five hospitals in CA, NV, OK, TX, DC



Improved documentation of risk of mortality

1 - June 2016 Pilot:
Two facilities SoCal (27 MDs, primarily Hospitalists)

2 - October 2016:
Six hospital system Las Vegas

3 - December 2016:
Five hospital system S. TX
Four hospitals in FL, SC, TX

4 - March 2017:
Five hospitals in CA, NV, OK, TX, DC

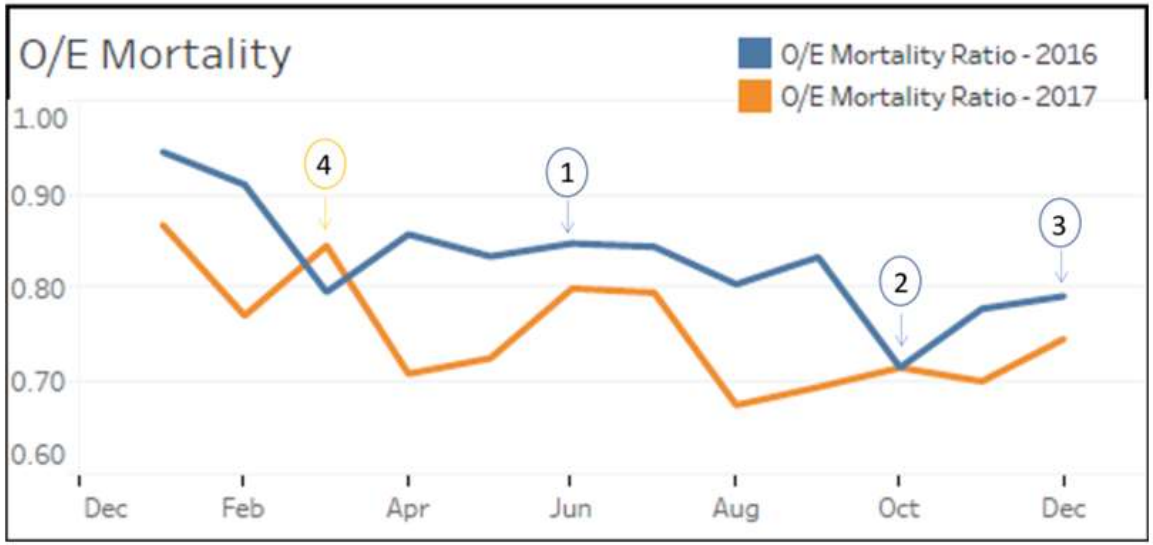
Improved observed / expected mortality

1 - June 2016 Pilot:
Two facilities SoCal (27 MDs, primarily Hospitalists)

2 - October 2016:
Six hospital system Las Vegas

3 - December 2016:
Five hospital system S. TX
Four hospitals in FL, SC, TX

4 - March 2017:
Five hospitals in CA, NV, OK, TX, DC



Thanks for your time – QUESTIONS?

Ehab Hanna, MD MBA | Chief Medical Information Officer | ehab.hanna@uhsinc.com | Office (610) 382-4762
Universal Health Services, Inc. | UHS of Delaware, Inc. | 367 South Gulph Road, King of Prussia, PA 19406 |

Bruce Marcolongo| Senior Director Information Services| bruce.marcolongo@uhsinc.com | Office (610) 382-4683
Universal Health Services, Inc. | UHS of Delaware, Inc. | 367 South Gulph Road, King of Prussia, PA 19406 |