Transitions Through the Care Continuum:

*Discussions on Barriers to Patient Care, Communication, and Advocacy*

The Hospital Experience

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US Population
1800 to present

Source: US census
Percentage of Elderly in the US

17% of the population now >65 years

Source: US census
Medicare Costs Are Rising

Medicare spending is projected to increase from $613 billion in 2014 to well over $1 trillion in the next nine years. By 2040, taxpayers will fund 61 percent of Medicare costs out of general revenues and just 22 percent of revenue from Part D.

2017 Medicare costs: $700 billion!
Medicaid Costs Are Rising As Well

Total Medicaid spending is projected to reach $529 billion in 2015, a one-year increase of about $30 billion. By 2023, that figure is projected to increase 58 percent. Medicaid spending is made up of federal and state spending, with the federal share typically accounting for about 60 percent of the total.

2017 Medicaid Costs Over $600 billion!

A Brief Review of where the money comes from.

• **Medicare** is a federal program that provides health coverage if you are 65 or older or have a severe disability, no matter your income.

• **Medicaid** is a state and federal program that provides health coverage if you have a very low income

• Total Cost for these two programs in 2017:  
  – $1.3 Trillion
Medicare and Medicaid Costs as % of Federal Dollars

Medicare and Medicaid Are Consuming More of Our Federal Dollar

Total US Expenditure Approaching $4 Trillion
Where is the money spent?


Source: US census
Figure 1. Aggregate hospital costs and hospital stays by payer, 2012

- Aggregate costs: $377.5 billion
  - Medicare: 46%
  - Medicaid: 29%
  - Private insurance: 16%
  - Uninsured: 4%
  - Other: 5%

- Stays: 36.5 million
  - Medicare: 39%
  - Medicaid: 31%
  - Private insurance: 21%
  - Uninsured: 6%
  - Other: 4%
2012 Hospitalization Data

• Total Hospitalizations
  – 36,500,000 hospital stays
  – The rate of hospitalization decreased between 2003 and 2012 overall and across patient subgroups.
  – ≈ 1/3 were older than 64 years of age

• Regarding > 64 year olds (≈17% of the US)
  – Cost per stay ≈ $11,000
  – Aggregate cost for US: $157,000,000,000
  – 41% of the entire US cost for hospitalization

Distribution of aggregate hospital costs by diagnostic category, 2014

Total aggregate costs: $387.3 billion

- All other conditions, 30%
- Circulatory system, 18%
- Musculoskeletal system, 14%
- Respiratory system, 11%
- Nervous system, 7%
- Digestive system, 9%
- Infectious and parasitic diseases, 6%
- Pregnancy and childbirth, 5%

* Based on principal diagnosis, which was defined by major diagnostic category

Source: Agency for Healthcare Research and Quality (AHRQ), Center for Delivery, Organization, and Markets, Healthcare Cost and
Rate of inpatient stays per 1,000 population by U.S. Census division, 2012

### Table 1. Inflation-adjusted mean hospital costs per stay, 2003, 2008, and 2012

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Note: Data from 2008 were used as end points in both the 2003-2008 and 2008-2012 analyses.


## Hospital Stays
**Frequency and Cost**

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Trends and Projections in Inpatient Hospital Costs and Utilization, 2003-2013

• Total hospital discharges remained relatively stable between 2003 and 2011
  – They are projected to decrease slightly through 2013.

• Average length of stay remained relatively stable between 2003 and 2011
  – It is projected to decrease somewhat through 2013.

• Average hospital costs increased by 2 percent per year between 2003 and 2011
  – they are projected to continue to increase at about this same rate through 2013.

Distribution of aggregate hospital costs and stays by age, 2011

Source: Agency for Healthcare Research and Quality (AHRQ), Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project (HCUP), Nationwide Inpatient Sample (NIS), 2011
Hospitalizations, by Age, US 200-2010

Figure 2. Hospitalizations, by age: United States, 2000–2010

Rate of inpatient stays and change over time by patient age, 2003-2012
Average annual percentage change in hospital inpatient utilization and inflation-adjusted costs, 2003-2008 and 2008-2012

- **2003-2008**
  - Hospital stays, number: 0.6%
  - Hospital stays, rate: -0.3%
  - Length of stay, mean: -0.2%
  - Costs*, mean: 1.8%
  - Costs*, aggregate: 2.4%

- **2008-2012**
  - Hospital stays, number: -1.1%
  - Hospital stays, rate: -1.9%
  - Length of stay, mean: -0.2%
  - Costs*, mean: 1.8%
  - Costs*, aggregate: 0.7%
Average hospital costs (inflation-adjusted) by service line, quarterly values 2003-2013
Rising costs!

• Hospital costs increased while the rate of hospitalization and mean length of stay decreased over the decade from 2003 to 2012.

• Short length of stay patients
  – Expensive and questionable

• In effort to reduce costs, Medicare invented a new patient status
  – Observation!
Bringing Patients Into the Hospital

• Patients present with a full spectrum of clinical challenges, needs and costs
• Many seemed to fit somewhere between safe discharge and full-admits
• Medicare invented “The Observation” status
  – Medicare generally pays a lower rate of obs patients.
Observation Status

• The Centers for Medicare and Medicaid Services (CMS) defines observation status for hospitalized patients as a “well-defined set of specific, clinically appropriate services,” usually lasting <24 hours, and that in “only rare and exceptional cases” should last > 48 hours.
Observation Unit

• Medicare original view was that patients who are admitted to obs status fit
  – “well-defined set of specific, clinically appropriate services,” usually lasting less than 24 hours.
  – Only in “rare and exceptional cases,” they continued, should it last more than 48 hours.

• Observation units were identified by the Institute of Medicine as central to improving resource use and patient flow
Origin of Hospital Observation Stays

- Community without home health: 84%
- Community with home health: 8%
- Inpatient: 1%
- Skilled Nursing Facility: 2%
- Treatment room: 2%
- Nursing Facility: 3%

Med Care. 2014 Sep; 52(9): 796–800.
Disposition of Hospital Observation Stays

- Community without home health: 80%
- Community with home health: 10%
- Emergency/Treatment room: 1%
- Skilled Nursing: 3%
- Nursing Facility: 3%
- Inpatient: 3%

Med Care. 2014 Sep; 52(9): 796–800.
Trouble in the Obs Unit

• Observation vs Inpatient
  – Often clinically indistinguishable
  – Often no meaningful different cost issues
  – The obs status is largely a billing change and not a delivery model change intended to improve efficiency.

• OIG in 2013 found that what mattered most was what hospital you were admitted to.
Trouble in the Obs Unit

Figure 1: Variation in the Use of Observation and Long Outpatient Stays Among Hospitals, 2012

- Long Outpatient Stays
- Observation Stays


Total # of hospitals 3330
Observation Units

- Numerous studies show that care in observation units is equal or better in quality and lower in cost than inpatient care for specific conditions.
- Observation units were identified by the Institute of Medicine as central to improving resource use and patient flow.
Observation vs Inpatient Status

- **Inpatient Status**
  - Medicare Part A
  - Paid on MS-DRGs (Medicare) and APR-DRGs (Medicaid)
    - Medicare Severity Diagnostic Related Groups
    - All Patient Refined Diagnostic Related Groups

- **Observation Status**
  - Outpatient care
    - For example – Clinic, Emergency department, Outpatient surgery
      Extended surgical recovery over-night
  - Less sick, shorter stay
  - Medicare Part B
  - Paid on APCs (Medicare) and APGs (Medicaid)
    - Ambulatory Payment Conditions
    - Ambulatory Payment Groups
Medicare
Observation Vs. Inpatient Stay

• Inpatient is Part A, Observation is Part B
  – Part A has a single deductible (co-pay) for a hospital stay
  – Part A covers most of the cost of the stay

• Part B has individual co-pays for each of the procedures performed (e.g., x-rays, MRIs, ED visit, drug administrations)
  – The cap on each individual co-pay is set at the Medicare inpatient cap
    • But the sum of the co-pays can be significant

• Cost to patient may well be higher as observation
Medicare
Observation Vs. Inpatient Stay

• Certain services covered in a Part A visit are not covered under Part B
  – E.g., self-administered drugs
  – Services that did not meet medical necessity (e.g., radiology)

• SNF coverage under Medicare requires a medically necessary 3 day admission prior to the SNF
SNF And Part A

• Medicare Part A (Hospital Insurance) need and get coverage for SNFs

• Medicare-covered services include, but aren't limited to:
  – Semi-private room (a room you share with other patients)
  – Meals
  – Skilled nursing care
  – Physical and occupational therapy*
  – Speech-language pathology services*
  – Medical social services
  – Medications
  – Medical supplies and equipment used in the facility
  – Ambulance transportation (when other transportation endangers health) to the nearest supplier of needed services that aren’t available at the SNF
  – Dietary counseling
Part A and SNFs

• **Who's eligible?**
• People with Medicare are covered if they meet all of these conditions:
  • You have Part A and have days left in your benefit period.
  • You have a qualifying hospital stay.
  • Your doctor has decided that you need daily skilled care given by, or under the direct supervision of, skilled nursing or therapy staff.
  • You get these skilled services in a SNF that's certified by Medicare.
  • You need these skilled services for a medical condition that was either:
    – A hospital-related medical condition.
    – A condition that started while you were getting care in the skilled nursing facility for a hospital-related medical condition.
Re-admissions: A Primary Target

• Re-admissions seen as costly and unnecessary
• Hospitals are incentivized to reduce readmissions:
  – Higher quality discharge planning
  – ED visits are not readmissions
  – Observation admits are not readmissions
  – HRRP introduced in 2004
    • Increase in obs rate attached to HRRP?
Avoidable Readmission

Potentially avoidable admissions are 10-14% of all admissions for most hospitals. Percent of US hospitals, 220 hospitals, 2011.

12.6% U.S. average potentially avoidable admissions.

These admissions equate to $9.5 million in annual "at risk" profit for an average 300-bed hospital. Percent of contribution per hospital by avoidable condition, 110 hospitals, 2011.

Congestive heart failure: 30%
Bacterial pneumonia: 24%
Urinary tract infection: 10%
Diabetes with short-term complications: 9%
COPD or asthma in older adults: 13%

HRRP- started in 2012

• What’s the Hospital Readmissions Reduction (HRR) Program?
  – Pay Hospitals for quality, not quantity

• Why's the HRR Program important?
  – Meaningfully reduce readmissions.

• What counts as a readmission in the HRR Program?
  – 30 day re-admission

• What diagnosis are used in the HRR Program?
  – Initially AMI, heart failure, and pneumonia.
  – Now have added COPD, Elective Hip and/or knee, CABG

• What’s being done to lower the rate of readmissions?
  – Better coordination
  – Better discharge planning
  – Better use of EHR
Hospital Re-admission Reduction Program

- Re-admit rate as compared to other hospitals will impact upon Medicare re-imbursement
- Begin FY 2013
- 1-3% reduction
- (phased in over 3 years)
- In 2017, Medicare penalties will be $528 Million
  - 20% increase over 2016
  - The increase is due to more medical conditions being measured.
  - Hospital fines will average less than 1 percent of their Medicare inpatient payments.
HRRP

• Medicare penalty of 3%
• The HRRP has saved Medicare over a billion dollars since its inception, including projected savings for 2017, and overall readmission rates have declined.
Reduction in Readmission Rate

• Changes in the hospital
  – Case Management
  – Hospitalist Programs
  – Improved communication

• Changes out of the hospital
  – SNFs
  – Reimbursement for quick follow-up with primary care provider
Source: Office of Information Products and Data Analytics, CMS
Figure 2
National Medicare Readmission Rates Started to Fall in 2012

Performance (measurement) Time Period

Notes: National readmission rates include unplanned hospitalizations for any cause within 30 days of discharge from an initial hospitalization for either heart failure, heart attack, or pneumonia. Readmission rates are risk-adjusted for certain patient characteristics, such as age and other medical conditions.

Source: Kaiser Family Foundation analysis of CMS Hospital Compare data files.

Figure 2: National Medicare Readmission Rates Started to Fall in 2012
RE-ADMIT RATE


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Graph showing the re-admission rate over time for targeted and nontargeted conditions. The graph indicates a downward trend in both categories, with different slopes for each. The targeted conditions show a more significant reduction compared to the nontargeted conditions.
Observation Rates

• Observation Rates are Increasing:
  – The use of observation status has nearly **doubled in the past six years**
  – Observation stays of more than 48 hours have increased from 3% to 8%
  – Number of patients in the hospital for at least three days that could not qualify for SNF due to observation was **over 600,000 last year alone (2011)**

• Shorter stay inpatients cases are closely scrutinized

• *Sometimes observation is a fallback to ensure the visit will be covered*

“Our analysis does not support the hypothesis that increases in observation stays can account in any important way for the reduction in readmissions.”
Healthcare Costs Still High

• Medicare sees cost reduction opportunity in three major ways
  – Reduced payment
    • Obs status
  – Penalties
    • HACs
    • HRRP
  – VBP
    • Penalties and rewards
  – CMS assesses hospital penalties based on a curve, resulting in a certain percentage of hospitals always be penalized, regardless of improvements in national readmission rates.
Potential Dollars at Risk for Hospital Quality Provisions

(percent reduction in DRG payments)

Potential to Have 6% of Base DRG Payments At Risk by 2017

Hospital Acquired Conditions
- Begin FY 2015
- 1% reduction

Readmissions
- Begin FY 2013
- 1-3% reduction (phased in over 3 years)

VBP
- Begin FY 2013
- 1-2% reduction (phased in over 4 years)
- Opportunity to recoup full amount and more
Value Based Purchasing

• The program is funded by reductions in base operating DRG per discharge payment reductions.
• Starting in 2015 all hospitals were paid less by CMS
• Money re-distributed based on:
  – Improvement
    • Compare to yourself
  – Achievement
    • Compare to other hospitals
Value Based Purchasing

• VBP Quality Measures include measurements of
  – Mortality
  – Safety of Care
  – Readmission Rate
  – Patient Experience
  – Effectiveness of Care
  – Timeliness of Care
  – Efficient Use of Medical Imaging
Value Based Purchasing

• The program is funded by reductions in base operating DRG per discharge payment reductions.
• Starting in 2015 all hospitals were paid less by CMS
• Money re-distributed based on:
  – Improvement
    • Compare to yourself
  – Achievement
    • Compare to other hospitals
Inpatient VBP FY 2016 Recap

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Inpatient VBP FY 2017 Recap

FY 2017 Finalized Revision

- Clinical Care: 25%
- Process (5%): 25%
- Outcomes (25%): 25%
- Patient and Caregiver Experience: 5%
- Efficiency and Cost Reduction: 5%
- Safety (20%)

Measure ID | NQS-Based Domain
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AMI-7a | Clinical Care – Process
IMM-2 | Clinical Care – Process
PC-01 *NEW* | Clinical Care – Process
MORT-30-AMI | Clinical Care – Outcomes
MORT-30-HF | Clinical Care – Outcomes
MORT-30-PN | Clinical Care – Outcomes
HCAHPS | Patient and Caregiver Centered Experience of Care / Care Coordination
CAUTI | Safety
CLABSI | Safety
MRSA *NEW* | Safety
C. Diff *NEW* | Safety
PSI-90 | Safety
SSI | Safety
MSPB-1 | Efficiency and Cost Reduction
Inpatient VBP FY 2018 Proposed Changes

- Clinical Care (25%)
- Patient and Caregiver Experience (25%)
- Efficiency and Cost Reduction (25%)
- Safety (25%)

### Measure ID | NQs-Based Domain
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AMI-7a | Clinical Care – Process
IMM-2 | Clinical Care – Process
PC-01 | Safety *PROPOSED CHANGE*
MORT-30-AMI | Clinical Care
MORT-30-HF | Clinical Care
MORT-30-PN | Clinical Care
HCAHPS | Patient and Caregiver Centered Experience of Care / Care Coordination
CTM-3 *NEW* | Safety
CAUTI | Safety
CLABSI | Safety
MRSA | Safety
C. Diff | Safety
PSI-90 | Safety
SSI | Safety
MSPB-1 | Efficiency and Cost Reduction
Potential Dollars at Risk for Hospital Quality Provisions
(percent reduction in DRG payments)

- **Hospital Acquired Conditions**
  - Begin FY 2015
  - 1% reduction

- **Readmissions**
  - Begin FY 2013
  - 1-3% reduction (phased in over 3 years)

- **VBP**
  - Begin FY 2013
  - 1-2% reduction (phased in over 4 years)
  - Opportunity to recoup full amount and more

Potential to Have 6% of Base DRG Payments At Risk by 2017
Hospital Acquired Conditions: Background

- The HAC Reduction Program encourages hospitals to make patient safety better and reduce the number of hospital-acquired conditions, like pressure sores and hip fractures after surgery.
- Saves Medicare approximately $350 million every year.
- Performance across these 5 healthcare-acquired infections:
  - Central Line-Associated Bloodstream Infection (CLABSI) measure
  - Catheter-Associated Urinary Tract Infection (CAUTI) measure
  - Surgical Site Infection (Colon Surgery and Abdominal Hysterectomy) (SSI)
  - Methicillin-Resistant Staphylococcus Aureus (MRSA)
  - Clostridium Difficile (C. diff)
Hospital Acquired Conditions

- Foreign Object Retained After Surgery
- Air Embolism
- Blood Incompatibility
- Stage III and IV Pressure Ulcers
- Falls and Trauma
  - Fractures
  - Dislocations
  - Intracranial Injuries
  - Crushing Injuries
  - Burns
  - Electric Shock
Hospital Acquired Conditions

- Manifestations of Poor Glycemic Control
  - Diabetic Ketoacidosis
  - Nonketotic Hyperosmolar Coma
  - Hypoglycemic Coma
  - Secondary Diabetes with Ketoacidosis
  - Secondary Diabetes with Hyperosmolarity

- Catheter-Associated Urinary Tract Infection (UTI)

- Vascular Catheter-Associated Infection
Hospital Acquired Conditions

• Surgical Site Infection Following:
  – Coronary Artery Bypass Graft (CABG) - Mediastinitis
  – Bariatric Surgery
    • Laparoscopic Gastric Bypass
    • Gastroenterostomy
    • Laparoscopic Gastric Restrictive Surgery
  – Orthopedic Procedures
    • Spine
    • Neck
    • Shoulder
    • Elbow

• Deep Vein Thrombosis (DVT)/Pulmonary Embolism (PE)
  – Total Knee Replacement
  – Hip Replacement
Graph 5
Share of Hospital Payment at Risk Under CMS Quality Incentive and Penalty Programs (%)

Source: CMS 2016
Penalties Have Begun to Level

Total Hospitals Given Reimbursement Penalties

Source: Definitive Healthcare

NOTES: *Penalties are assessed on hospitals as reductions in base payments on all Medicare inpatient admissions, and do not apply to added payment adjustments, such as graduate medical education payments. The count of Medicare patient admissions is the sum of fee-for-service Medicare cases for each hospital in FY 2014—the most recent year available. Analysis excludes hospitals not subject to the HRRP (e.g., Maryland hospitals and those not paid under inpatient prospective payment system (e.g., psychiatric hospitals). SOURCE: KFF analysis of FY 2017 Inpatient Prospective Payment System Final Rule Impact File.
Figure 1

Most Medicare patient stays (78%) are in hospitals with either no penalty or penalties equal to less than 1% of their Medicare inpatient payments

<table>
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<tr>
<th>Hospital readmission penalty, 2017*</th>
<th>Total count of Medicare patient admissions, by hospitals’ penalty level</th>
<th>Share of Medicare patient admissions, by 2017 hospital readmission penalty level*</th>
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<td>3% (maximum)</td>
<td>119,421 (1%)</td>
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<td>1.6 - 1.79%</td>
<td>197,314</td>
<td>1% - 1.9% penalty (17%)</td>
</tr>
<tr>
<td>1.4 - 1.59%</td>
<td>384,311</td>
<td>1% - 1.9% penalty (17%)</td>
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<tr>
<td>1.2 - 1.39%</td>
<td>363,969</td>
<td>1% - 1.9% penalty (17%)</td>
</tr>
<tr>
<td>1 - 1.19%</td>
<td>435,412</td>
<td>1% - 1.9% penalty (17%)</td>
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<tr>
<td>0.8 - 0.99%</td>
<td>784,322</td>
<td>1% - 1.9% penalty (17%)</td>
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<tr>
<td>0.6 - 0.79%</td>
<td>871,200</td>
<td>1% - 1.9% penalty (17%)</td>
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<tr>
<td>0.4 - 0.59%</td>
<td>1,064,649</td>
<td>1% - 1.9% penalty (17%)</td>
</tr>
<tr>
<td>0.2 - 0.39%</td>
<td>1,305,105</td>
<td>1% - 1.9% penalty (17%)</td>
</tr>
<tr>
<td>0.1 - 0.19%</td>
<td>2,072,206</td>
<td>1% - 1.9% penalty (17%)</td>
</tr>
<tr>
<td>No Penalty</td>
<td>1,034,488</td>
<td>1% - 1.9% penalty (17%)</td>
</tr>
</tbody>
</table>

9,195,700 Total Medicare patient admissions

NOTES: *Penalties are assessed on hospitals as reductions in base payments on all Medicare inpatient admissions, and do not apply to added payment adjustments, such as graduate medical education payments. The count of Medicare patient admissions is the sum of fee-for-service Medicare cases for each hospital in FY 2014—the most recent year available. Analysis excludes hospitals not subject to the HRRP (e.g., Maryland hospitals and those not paid under inpatient prospective payment system (e.g., psychiatric hospitals).

Communicating the Patient Experience

• Phone Call
  – Specific
  – Inconvenient

• Discharge Summary
  – Detailed
  – Content and Structure can Vary

• Fax
  – Specific
  – Piles!

• EMRs
  – Efficient
  – Compatibility

• HIEs
  – State
  – Federal
  – Corporate
  • Medicity
  • Commonwell Alliance
The Joint Commission:
Contents of a Discharge Summary

- Reason for hospitalization.
- Significant findings.
- Procedures and treatment provided.
- Patient’s discharge condition.
- Patient and family instructions (as appropriate).
- Attending physician’s signature.

<table>
<thead>
<tr>
<th>Joint Commission-mandated components</th>
<th>Frequency of inclusion (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stroke (N = 112)</td>
</tr>
<tr>
<td>1. Reason for hospitalization</td>
<td>99</td>
</tr>
<tr>
<td>2. Significant findings</td>
<td>99</td>
</tr>
<tr>
<td>3. Procedures and treatment provided</td>
<td>100</td>
</tr>
<tr>
<td>4. Patient’s discharge condition</td>
<td>79</td>
</tr>
<tr>
<td>5. Patient/family instructions (as appropriate)</td>
<td>99</td>
</tr>
<tr>
<td>6. Attending physician’s signature</td>
<td>91</td>
</tr>
</tbody>
</table>
The Promise of a Robust Health Data Infrastructure

- Satisfy the growing demand of patients for flexible access to their own health information
- Offer faster, interoperable access to patient records by health care providers
- Reduce errors within individual records and across records
- Reduce redundant testing and diagnostic procedures
- Produce more complete health records and more accurate health data

The Promise of a Robust Health Data Infrastructure

- Promote better longitudinal tracking of patients and patient groups
- Promote improved standards of care and reduce the incidence of errors in clinical practice
- Provide research data of unprecedented power to inform clinical care, public health, and biomedical research

The Promise of a Robust Health Data Infrastructure

- Facilitate better communication among health care providers and patients
- Enable electronic detection of health care fraud
- Improve tracking of health care costs and benefits, thereby enhancing understanding of the economics of health care delivery.

Time to Share Information?

• Impediments
  – Technological
    • Interoperability
  – Financial
    • Recent Congress report “persons or entities knowingly and unreasonably interfere with the exchange or use of electronic health information” for their financial own benefit. (www.healthit.gov/sites/default/files/reports/info_blocking_040915.pdf)
    • “It may be contrary to the financial interests of health care providers to give patients broad access to their medical records. Once patients have that information, they can share it with competing health care providers.”
Time to Share Information?

- HHS certifies EMRs for Meaningful Use
- No interoperability, no certification
- FHIR to the rescue
  - Fast Healthcare Interoperability Resources
    - a new communication standard that will allow for faster and easier access to granular health data across disparate health information technology (HIT) systems
    - Cerner, Epic, Athenahealth and others on board
FHIR Structure
Conclusion

• Hospital Experience
  – Increasing in numbers
  – Increasing in costs
  – Increasing in complexity
    • For the patient
    • For the hospital
  – Should be shared with the right people
    • Technology provides challenges
    • Technology provides answers