HEALTHCARE SYSTEM REFORM: WHY DATA AND INFORMATION IS NEEDED TO MAKE IT HAPPEN

JASON MCNAMARA
DIRECTOR FOR HEALTHCARE TECHNOLOGY SERVICES

DEDICATED TO GOVERNMENT HEALTH PROGRAMS
MY JOURNEY

• Medicaid baby – foster child
• Marine Corps Combat Veteran
• Health IT consultant for hospitals and practice consortiums
• VA/DoD Clinical Applications Director
• Centers for Medicare and Medicaid Services
  • Regional Health IT Coordinator
  • Technical Director for Health IT
  • Senior Technical Director for Medicaid IT
• Currently:
  • Director for Healthcare Technology Services/MSLC
  • Adjunct Professor, School of Public Health, GWU
  • President and Co-Founder of Veteran Services Organization (non-profit)
  • Radio Co-Host on the Military Network Radio
KEY TAKEAWAYS

• The CMS strategy is quickly moving across the country

• Data barriers occur at every point in the system – but more accountability from data

• Social determinant data is the new wave of data – not a trend, but requirement
CMS VISION
MEDICAID TRENDS/FACTS

• 50th Anniversary

• Medicaid and CHIP cover over 71 million Americans

• 22% increase in enrollment post-ACA

• Expenditures
  • >$13 Billion CHIP (2013)
  • Medicaid $529 Billion (2015 projected)
Medicaid Expenditure Data: 1966 through 2015 (Projected)

Expenditure in billion U.S. dollars

Federal

State

DIRECTION OF CHANGE

Historical State

• Key characteristics
  • Provider-centered
  • Incentives for volume
  • Unsustainable
  • Fragmented Care

• Systems and Policies
  • Fee-For-Service Payment Systems

Evolving Future State

• Key characteristics
  • Patient-centered
  • Incentives for outcomes
  • Sustainable
  • Coordinated care

• Systems and Policies
  • Value-based purchasing
  • Accountable Care Organizations
  • Episode-based payments
  • Medical Homes
  • Quality/cost transparency
MEDICARE FFS PAYMENT SHIFT TO QUALITY

<table>
<thead>
<tr>
<th>Year</th>
<th>Historical Performance</th>
<th>Goals</th>
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<tr>
<td>2011</td>
<td>0% 68%</td>
<td>All Medicare FFS</td>
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<tr>
<td>2014</td>
<td>22% 85%</td>
<td>Alternative payment models, FFS linked to quality</td>
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<tr>
<td>2016</td>
<td>30% 85%</td>
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<td>2018</td>
<td>50% 90%</td>
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If we find better ways to pay providers, deliver care, and distribute information:

• We can receive better care.
• We can spend our health dollars more wisely.
• We can have healthier communities, a healthier economy, and a healthier country.
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IMPROVING: “THE WAY PROVIDERS ARE INCENTIVIZED”

- Health homes are incentivizing patient outcomes and better care
  24 programs in 15 states

- Shared Savings states are improving quality while reducing costs
  5 states

- Medicaid Managed Care Management is improving
  New contract language, measurements, and accountability (OR)

- Delivery System Reform Incentive Pools are transforming payment, delivery and information
  5 states
IMPROVING: “THE WAY CARE IS DELIVERED”

• Supporting providers to align services across sectors in service of beneficiary (Health homes, 1915s, duals, 1115s)

• Money Follows the Person and Balancing Incentives Program (and crossing the threshold to HCBS)

• Expanded use of quality improvement and quality metrics across multiple programs (Adult Quality Grants, spread of core set, increased use of metrics in 1115 waivers and SPAs)

• Specific initiatives such as the Maternal and Child Health Initiative (and early elective deliveries have dropped by almost half)

• Series of informational bulletins and SMDs from multiple groups

• Innovation Accelerators Program (IAP) - $175 million in contract support
IMPROVING: “THE WAY INFORMATION IS DISTRIBUTED”

- Electronic health records
- Health information exchange and 90/10
- TMSIS (public use files and program management)
- IAP and data analytics
- Transparency of performance metrics and quality performance
STATES MOVING TOWARDS DELIVERY REFORM*

MEDICAID MANAGED CARE

[Map showing states with different managed care models]
PATIENT CENTERED MEDICAL HOME

In Place in FY 2014
Plan to Implement in FY 2015
No Plans to Implement

DEDICATED TO GOVERNMENT HEALTH PROGRAMS
MEDICAID HEALTH HOMES

[Map showing states with different plans for Medicaid Health Homes]
ACCOUNTABLE CARE ORGANIZATION
DELIVERY SYSTEM REFORM INCENTIVE PAYMENT
STATE INNOVATION MODELS (SIM) – ROUND 1

Source: Centers for Medicare & Medicaid Services
STATE INNOVATION MODELS (SIM) – ROUND 2

Source: Centers for Medicare & Medicaid Services
SUM OF ALL STATES
TRANSFORMED – MEDICAID STATISTICAL INFORMATION SYSTEM (T-MSIS)
TMSIS

• System that allows states to report Medicaid requirements to CMS,* as defined by law:
  
  • Study encounters, claims, and enrollment data by claim and beneficiary attributes;
  
  • Analyze expenditures by medical assistance and administration categories;
  
  • Monitor expenditures within delivery systems and assess the impact of different types of delivery system models on beneficiary outcomes;
  
  • Examine the enrollment, service provision, and expenditure experience of providers who participate in Medicaid programs (as well as in Medicare); and
  
  • Observe trends or patterns indicating potential fraud, waste, and abuse in the programs so [CMS] can prevent or mitigate the impact of these activities

**TMSIS DIRECTION OF CHANGE**

**Old System**

- **Key characteristics**
  - Reported quarterly
  - 400 data elements
  - Missing data elements = lack of program oversight
  - 1.5 years to analyze data

- **Data Files**
  - Eligibility
  - Inpatient
  - Long-Term Care
  - Pharmacy
  - Other (catch all)

**New System**

- **Key characteristics**
  - Reported monthly
  - 1,000 data elements
  - Driving program and policy changes
  - 60 days to analyze

- **Data Files**
  - Eligibility
  - Third-party liability
  - Managed care plan information
  - Provider
  - Four claims files (inpatient, long-term-care, outpatient, and pharmacy).
DATA ANALYSIS CHALLENGES

• No matter which level – data analysis is a challenge:
  • Source data (TMSIS: 9-84% not structured for analysis);
  • Technology or storage bottlenecks (delayed systems or lack of);
  • Noisy data (TMSIS: 12-50% unusable data);
  • Spurious correlations
    • U.S. Spending on science, space and technology correlating to death by hanging, strangulation and suffocation (99.79% correlation (r=.99789))*
  • Measurement Errors
    • Random Errors – more applicable to population health management
    • Systemic Errors – “right system hitting the wrong target” “end-user error”

*http://www.tylervigen.com/spurious-correlations
POPULATION HEALTH DATA NEEDS
MASSIVE SHIFT FOR POPULATION HEALTH

- Income
- Education
- Employment
- Family and Social Support
- Community Safety
- Transportation
- Air & water quality
WHY SOCIAL DETERMINANTS MATTER

• CMS penalties:
  • 2012 CMS penalized 77% of all safety net hospitals for excess readmissions of patients with heart attack, heart failure, or pneumonia.
  • Meanwhile a review of 70 studies found that unemployment and low income were tied to a higher risk of hospital readmission among patients with heart failure and pneumonia.*

• No shows or access in south-west region:
  • 25-55% of patients not showing up for visits due to transportation issues (DMV, social services data, and income data)

• Risk profiling in mountain state:
  • Combine data from DMV, IRS, and employment data to high risk profile patients and route through different care management process

*http://www.commonwealthfund.org/publications/fund-reports/2014/may/addressing-patients-social-needs
EARLY SIGNS OF SUCCESS
PARTNERSHIP FOR PATIENTS

• Data shows a 17% reduction in hospital acquired conditions across all measures from 2010-2013
  o 50,000 lives saved
  o 1.3 million patient harm events avoided
  o $12 billion in savings

• Many areas of harm dropping dramatically—patient safety improving

- **62.4% ↓** Ventilator-Associated Pneumonia
- **70.4% ↓** Early Elective Delivery
- **12.3% ↓** Central Line-Associated Blood Stream Infections
- **14.2% ↓** Venous thromboembolic complications
- **7.3% ↓** Re-admissions
Medicare all-cause, 30-day hospital readmission rate is declining

**Legend:** CL: control limit; UCL: upper control limit; LCL: lower control limit

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Source: Health Policy and Data Analysis Group in the Office of Enterprise Management at CMS. April 2014—August 2014 readmissions rates are projected based on early data, with 95 percent confidence intervals as shown for the most recent five months.
# NEW JERSEY’S JOURNEY

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QUESTIONS OR COMMENTS?

Contact Information:

Jason McNamara
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