2015 Health IT Leadership Summit

The Collision of Federal and State Economic Intervention, and Rise of New Healthcare Paradigms

John Bardis
Founder & Chairman Emeritus, MedAssets
Current political dysfunction

• No budget for years
• Lack of a plan to deal with federal budget
• Sequestration
• Countered by an active Federal Reserve and Treasury
The world is engaged in the greatest monetary experiment in history.
Real Leadership

Henry Paulson
FORMER UNITED STATES SECRETARY OF THE TREASURY

Timothy Geithner
FORMER UNITED STATES SECRETARY OF THE TREASURY

Ben Bernanke
FORMER CHAIRMAN OF THE FEDERAL RESERVE
U.S. economy maintains a strong position

Net worth of households and non-profits
In current dollars

U.S. overtaking Russia and Saudi Arabia as world’s biggest oil producer

Source: IEA, Credit Suisse Commodities Research
U.S. Energy Advantage

Natural Gas

Source: Bloomberg, FERC, China NDRC, World Bank, IEA, Reuters.
*Korean industrial electricity prices are heavily subsidized.

Electricity

Electricity prices by region, USD per MWh

Unemployment rates continue to drop

U.S. Payroll to Population Employment Rates
Monthly trend, January 2010-September 2014

% of adult population employed full time for an employer
In 1989, the cost of attending college was 18%, 41% of household income; in 2011 it was 35%, 72%, respectively. The graph shows the increase in college costs versus median household disposable income from 1988 to 2012. The cost of public four-year colleges increased by 248% from $4,566 in 1988 to $25,316 in 2012. The cost of private four-year colleges increased by 214% from $10,461 in 1988 to $32,882 in 2012. Median U.S. household disposable income increased from $15,872 in 1988 to $45,399 in 2012.
The wage gap

Cost of college education vs. average wages

Annual tuition and fees have exceeded inflation and average consumer wages
Per capita healthcare spending vs. consumer prices and average wages
Family insurance—average worker’s annual contribution to total premiums

*Between 1999 and 2012, worker responsible for 30% of total premiums; worker’s direct contribution increased by 180%*
Healthcare and education costs – as percent of shrinking U.S. household income

- U.S. household Spending growth jumped to **5.4% in 2014**
- U.S. healthcare premium growth **6.4% in 2014**
- Total cost of healthcare per family of four being **$23,215**
- Average household will spend **$9,695** on healthcare this year out-of-pocket.
- Wage growth for 2014 averaged **2.3%**
- In 33 years productivity grew **8x** faster than worker compensation
- Private Higher Education: up **3.7%** and Public Higher Education: up **3.1%**
ACA
Two Certainties and Known Unknowns
Impact of ACA – Medicare reimbursement cuts

**Obamacare Raids Medicare to Pay for Other New Programs**

Projected Medicare savings from Obamacare don’t improve the program. Instead, they pay for other new programs created under the law that aren’t even for seniors. By slashing reimbursement rates instead of introducing real reform, the health law jeopardizes seniors’ access to providers.

**Cuts in Medicare Due to Obamacare, 2013-2022**

<table>
<thead>
<tr>
<th>Service</th>
<th>2013-2022 Cuts in Medicare</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital services</td>
<td>$260</td>
</tr>
<tr>
<td>Payment rates in Medicare Advantage</td>
<td>$156</td>
</tr>
<tr>
<td>DSH* payments and other Medicare provisions</td>
<td>$145</td>
</tr>
<tr>
<td>Home health services</td>
<td>$66</td>
</tr>
<tr>
<td>Skilled nursing services</td>
<td>$39</td>
</tr>
<tr>
<td>All other services</td>
<td>$33</td>
</tr>
<tr>
<td>Hospice services</td>
<td>$17</td>
</tr>
</tbody>
</table>

*Disproportionate Share Hospital, meaning payments that go to hospitals that serve a large number of low-income patients.

There are significant, structural challenges facing the delivery of healthcare

~25M Americans gaining healthcare insurance over next 3 years but likely to enter and lower per patient rates

~8K baby boomers now eligible for Medicare each day

Increasing competitiveness driving a rush to scale

~$1.2T of healthcare expenditures tied to waste & inefficiency
Physician Alignment/Accountable Care Organizations

Patient as Consumer – High Premiums/Deductibles/Narrow Networks

Value-Based Purchasing

Federal Tax Subsidies

Physician Alignment/Accountable Care Organizations

ACA Provisions – “The Known Unknowns”

30-Day Readmission Rules

Medicaid Expansion
Medicaid Expansion—28 states* that are expanding Medicaid

19 not yet expanded plus 4 states to watch – IN, TN, UT and WY

*Including District of Columbia
Source: familiesusa.org
Patient as Consumer - High Deductibles

Plans greater than $2,000 have increased six-fold since 2006!


*Estimate is statistically different from estimate for previous year shown.

Note: These estimates include workers enrolled in HDHP/SO and other plan types. Because we do not collect information on the attributes of converted plans, to be conservative, we assumed that workers in conventional plans do not have a deductible of $1,000 or more. Because of the low enrollment in conventional plans, the impact of this assumption is minimal. Average general annual health plan deductibles for PPOs, POS plans, and HDHP/SOs are for in-network services.

Unknowns – Narrow Networks and High Premiums – deterring utilization

Private Exchanges Represent an Emerging Option for Employers to Reduce Costs

Private exchanges are in early development with the infrastructure being built.

- Many experts expect this shift to coincide with defined contribution (DC) health plans.
  - DC plans will drive consumers to shop with a greater focus on quality
- Lower cost, narrow networks are expected to lead price reductions in these markets.
- An employer survey showed:
  - Over 20% of employers are considering switching, regardless.
  - An additional 50%+ of employers will consider switching if cost savings of at least 10% can be demonstrated.

Projected Enrollment in Public vs. Private Exchanges, 2014 - 2018

Employer Narrow Networks
The most popular cost management strategy for employers is becoming limiting plan options

When it comes to plan management strategies to reduce the costs of covering active employees, the most popular strategy is a reduction in plan options (Figure 23). Thirty percent did that this year, and an additional 18% plan to do it in 2015. Other strategies include consolidating plan vendors, eliminating health maintenance organizations as a plan option and, far behind, minimizing or eliminating FSAs.

<table>
<thead>
<tr>
<th>Plan management strategies</th>
<th>In place in 2014</th>
<th>Planned for 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce number of plan options</td>
<td>30</td>
<td>18</td>
</tr>
<tr>
<td>Consolidate health plan vendors</td>
<td>33</td>
<td>9</td>
</tr>
<tr>
<td>Eliminate health maintenance organization plan option</td>
<td>26</td>
<td>10</td>
</tr>
<tr>
<td>Minimize of eliminate FSAs</td>
<td>6</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: 19th Annual Towers/Watson/National Business Group on Health Employer Survey
Risk-Based Payments: Rapid market expansion:
In the next 2 years, risk-based payments are expected to represent 27% of US health systems’ net patient revenue.

Current and Future Adoption of Risk Based Payments
Percent of Net Patient Revenue

Source: AHA Survey of Care Systems and Payment Webinar, presented by the Health Forum on November 20th, 2013. 2013 Data based on initial data from the AHA’s Survey of Care Systems & Payment (n = 1,323).
# Industry Trends Driving Emerging Business Needs

## Key Trends

<table>
<thead>
<tr>
<th>Key Trends</th>
<th>Implications</th>
<th>Imperatives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Affordable Care Act and the Newly Insured</strong></td>
<td>Declining revenue per patient, Medicare reductions, exchange rates&lt;br&gt;Volume shifting to non-acute settings</td>
<td>• Achieve incremental cost reductions via comprehensive focus on purchased services, labor, and clinical utilization&lt;br&gt;• Obtain insight and forecasting capabilities to know where reform is driving patient care settings</td>
</tr>
<tr>
<td><strong>Value-based reimbursement</strong></td>
<td>Negotiate effective payor contracts for both FFV and FFS environments&lt;br&gt;Audit tools and analytics to remove uncertainty and mitigate risk&lt;br&gt;Create a culture of accountability</td>
<td>• Evaluate historical claims and cost data under the existing fee for service environment to choose the right episode definitions and arrangements&lt;br&gt;• Develop best practice quality, safety and reliability culture through Lean and other change management initiatives to align clinical delivery to cost and outcomes</td>
</tr>
<tr>
<td><strong>IDN consolidation</strong></td>
<td>Continuum of care and competitive complexity will increase</td>
<td>• Gain competitive insight and informed strategic plans for business models and integrated care delivery relationships</td>
</tr>
</tbody>
</table>
Utilization Shifts Redefine Growth Opportunities

Adult Inpatient Forecast
US Market, 2014–2024

Discharges
Millions

<table>
<thead>
<tr>
<th>Year</th>
<th>5-Year</th>
<th>10-Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>34</td>
<td>-2%</td>
</tr>
<tr>
<td>2019</td>
<td>33</td>
<td>-3%</td>
</tr>
<tr>
<td>2024</td>
<td>35</td>
<td>+15%</td>
</tr>
</tbody>
</table>

Adult Outpatient Forecast
US Market, 2014–2024

Volume
Billions

<table>
<thead>
<tr>
<th>Year</th>
<th>5-Year</th>
<th>10-Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>2.5</td>
<td>+7%</td>
</tr>
<tr>
<td>2019</td>
<td>2.8</td>
<td>+14%</td>
</tr>
<tr>
<td>2024</td>
<td>3.0</td>
<td>+21%</td>
</tr>
</tbody>
</table>

Note: Forecast excludes 0–17 age group. IP = inpatient; OP = outpatient.
Sources: Impact of Change® v14.0; NIS; PharMetrics; CMS; Sg2 Analysis, 2014.
Impact of Industry Trends Varies Across Service Lines

### Inpatient Service Line Growth Rates
**US Market, 2014–2024**

<table>
<thead>
<tr>
<th>Service Line</th>
<th>Sg2 IP Forecast</th>
<th>Population-Based Forecast</th>
<th>Sg2 OP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orthopedics and Spine</td>
<td>11%</td>
<td>20%</td>
<td>18%</td>
</tr>
<tr>
<td>Neurosciences</td>
<td>10%</td>
<td>18%</td>
<td></td>
</tr>
<tr>
<td>Cancer</td>
<td>3%</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>Obstetrics</td>
<td>3%</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>Pediatrics</td>
<td>-8%</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>Medicine/Surgery</td>
<td>-7%</td>
<td>16%</td>
<td></td>
</tr>
<tr>
<td>Cardiovascular</td>
<td>-15%</td>
<td>21%</td>
<td></td>
</tr>
</tbody>
</table>

### Outpatient Service Line Growth Rates
**US Market, 2014–2024**

<table>
<thead>
<tr>
<th>Service Line</th>
<th>Sg2 IP Forecast</th>
<th>Population-Based Forecast</th>
<th>Sg2 OP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orthopedics and Spine</td>
<td>13%</td>
<td>23%</td>
<td></td>
</tr>
<tr>
<td>Neurosciences</td>
<td>18%</td>
<td>16%</td>
<td></td>
</tr>
<tr>
<td>Cancer</td>
<td>16%</td>
<td>22%</td>
<td></td>
</tr>
<tr>
<td>Obstetrics</td>
<td>2%</td>
<td>17%</td>
<td></td>
</tr>
<tr>
<td>Pediatrics</td>
<td>1%</td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td>Medicine/Surgery</td>
<td>15%</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>Cardiovascular</td>
<td>19%</td>
<td>23%</td>
<td></td>
</tr>
</tbody>
</table>

Note: All service lines exclude 0–17 age group except for Pediatrics, which excludes 18+ age group. Cardiovascular includes cardiology and vascular. Medicine/Surgery includes allergy and immunology, burns, dermatology, endocrinology, ENT, gastroenterology, medicine and surgery, infectious diseases, nephrology, ophthalmology, pulmonology, rheumatology, and urology. Neurosciences includes brain/CNS cancer CARE Family. OP Pediatrics excludes psychiatry, gynecology and obstetrics; IP Pediatrics additionally excludes normal newborns and neonatology. CNS = central nervous system; ENT = ear, nose and throat; IP = inpatient; OP = outpatient.

Sources: Impact of Change® v14.0; NIS; PharMetrics; CMS; Sg2 Analysis, 2014.
And it Differs by Site of Care Across the Continuum

2014 Site of Care Volumes and 5-Year Forecast, Adults
US Market, 2014–2019

Acuity

Virtual

Volume in 2019
50M

In 2019, 4% of all E&M visits will be delivered in a virtual care setting.

Hospital OP/ASC

Volume 393M

Office/Clinic

Volume 2.2 Billion

Urgent/Retail Care

Volume 10M

ED

Volume 101M

Inpatient

Volume 33M

SNF

Volume 6M

Home

Volume 193M

Other

Volume 180M

In 2019, 4% of all E&M visits will be delivered in a virtual care setting.

Note: The analysis excludes 0–17 age group. Other includes nonhospital locations such as OP rehab facilities, psychiatric centers, hospice centers, federally qualified health centers and assisted living facilities. ASC = ambulatory surgery center; E&M = evaluation and management; SNF = skilled nursing facility. Sources: Impact of Change® v14.0; NIS; PharMetrics; CMS; Sg2 Analysis, 2014.
In post reform world - the Hospital Is No Longer the Center of Gravity in a Value-Driven World

- We Need to Integrate Delivery Resources
- Into a System of CARE
Prepare for Pricing Pressure

"For providers who say, ‘I don’t compete on price,’ the question becomes, ‘How do you make additional data available to showcase your quality? What else are you willing to provide to enable informed decisions?’"

—Doug Ghertner, President and CEO, Change Healthcare Corporation

Change Healthcare Transparency Matrix

**Elliot CareBundles Offer High-Quality Care at Lowest Price with No Bills**
- Colonoscopy: $1,995
- Hernia Repair: $4,995
- Knee Arthroscopy: $5,995

Sources: Elliot Health System. Elliot CareBundles offer high quality care at the lowest price with no bills [press release]. February 26, 2014; Sg2 Interview With Change Healthcare, 2014.
Which Becomes Real When Put in Consumers’ Hands

Insurers
- e.g., United Healthcare

Governments
- e.g., New Hampshire

Entrepreneurs
The Shift from Wholesale to Retail is Profound

Families enrolling in CDHPs for the first time in 2005 spent 14% less than similar families enrolled in plans with less cost exposure. The market share of CDHPs is likely to top 50% over the next decade.*

~60% of employers indicated a willingness to switch to private exchanges if the switch could lead to a 10% reduction in health care costs.**

A 2013 Mercer survey found that nearly one-third of employers participating were considering offering a private exchange within two years, and 47% said they were considering shifting employees to an exchange within five years.

Sg2’s Impact of Change® forecast found that sensitivity to cost exposure is not constant across service lines. ED visits, cancer care and imaging are far less sensitive to cost exposure than are services like primary care, screenings/preventive care and rehab.

Health Care Is Local and Not All Markets Are Moving from Volume to Value at the Same Pace

Sg2 Map of Market Accountability Readiness, 2012

To Compete, Take a Broader View of Your Channel Strategy

Sample Data for Ambulatory Volumes and Share

SNF = skilled nursing facility; OP = outpatient. Sources: Health Intelligence Company, LLC (doing business as Blue Health Intelligence); Sg2 Ambulatory Market Share v1.0; Sg2 Analysis, 2014.
Key trends to incorporate into your strategies

- We are moving from volume to value – be able to analyze your data for risk-based arrangements
- Develop smart growth strategy, aligned with both volume and value-based payment models.
- Declining reimbursement and health care reform are driving care redesign efforts and significant cost control.
- There are “hot spots” of market readiness, and not all health systems have built the competencies needed to succeed in a value-driven market place.
- The supply chain will become complicated as it expands across systems of care
- Control of the supply chain, variation and cost will be increasingly challenging as the physician network expands.
- Data is critical in evaluating value and targeting improvement
Relative decline in life expectancy
Life expectancy at birth: 1970 and 2011

In 1970 U.S. life expectancy was one year above the average for nations in The Organization for Economic Co-operation and Development ("OECD"), but has now declined on a relative basis to more than one year below the OECD average.

Source: OECD Health Statistics 2013, reflects 2011 data (or nearest available year).
Low return on investment for unrivaled level of healthcare spend
Life expectancy at birth and health spending per capita, 2011

The U.S. spends more than any other nation ($8,500 per person) on healthcare, with annual per capita annual expenditures ~50% greater than the next highest spender (Norway at $5,669 per person)

- Despite this investment, U.S. life expectancy has been surpassed by countries such as Slovenia, Greece and Portugal who on average spend 71% less per capita on healthcare as compared to the United States ($6,041 less spending per person)

Source: OECD Health Statistics 2013, reflects 2011 data (or nearest available year).
Kaiser populations have realized lower costs and improved life expectancies:

Kaiser’s integrated, standardized care model has been proven to reduce total expenditures and deliver improved clinical quality, although certain healthcare providers in the U.S. may be challenged to replicate this success by transitioning away from fee-for-service reimbursement models across disparate populations.

Source: Represents potential national effect of replicating Kaiser’s care model throughout all of U.S. Per Kaiser Permanente’s 2012 Annual report, Kaiser generates $50.6B of operating revenue to treat 9,056,234 members, implying a total $5,587 annual healthcare cost per patient that is a material improvement over the $8,500 U.S. average. Kaiser facilities have also generated materially improved mortality rates, and this analysis assumes the Kaiser care model could improve U.S. average life expectancy at birth to 80.8 years (current life expectancy for California residents, Kaiser’s largest market).
The Kaiser Permanente care model reduces total expenditures and improves clinical outcomes

Transitioning all care in the U.S. away from a fee-for-service healthcare model to a clinically integrated, value-based care model would yield a substantial reduction in total expenditures.

- Research indicates that with adopting superior standardized clinical care models in all settings, the U.S. could reduce healthcare spending by as much as 30% for acute and chronic illnesses (2).

Potential benefits from implementing Kaiser care model throughout U.S. (1):

- Represents potential national effect of replicating Kaiser’s care model throughout all of U.S. Per Kaiser Permanente’s 2012 Annual report, Kaiser generates $50.6B of operating revenue to treat 9,056,234 members, implying a total $5,587 annual healthcare cost per patient that is a material improvement over the $8,500 U.S. average. Kaiser facilities have also generated materially improved mortality rates, and this analysis assumes the Kaiser care model could improve U.S. average life expectancy at birth to 80.8 years (current life expectancy for California residents, Kaiser’s largest market).


2. Represents potential national effect of replicating Kaiser’s care model throughout all of U.S. Per Kaiser Permanente’s 2012 Annual report, Kaiser generates $50.6B of operating revenue to treat 9,056,234 members, implying a total $5,587 annual healthcare cost per patient that is a material improvement over the $8,500 U.S. average. Kaiser facilities have also generated materially improved mortality rates, and this analysis assumes the Kaiser care model could improve U.S. average life expectancy at birth to 80.8 years (current life expectancy for California residents, Kaiser’s largest market).