Leadership: Five Imperatives Hospitals and Health Systems Can Plan for Now to Succeed in the Future

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Presentation Disclaimer

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5 Imperatives for future success:

1. Invest in a comprehensive customer experience strategy.
2. Embrace, Mobilize, and Secure Data.
3. Reduce variation through statistical modeling.
4. Redefine your capital asset investment philosophy.
5. Encourage diversity of thought.

Traditional Issues/Topics…still important.

- Revenue cycle management
- Service line analysis
- Quality improvement initiatives
- Operational efficiency
Current State of Affairs

FY 2017 Federal Budget – Health Spending Largest

FY17 Federal Budget Authority for Fiscal Years 2016 - 2021

Federal Budget Authority for - FY 2017

- Defense 20%
- Education 3%
- Health Care 25%
- Other Spending 3%
- General Government 1%
- Transportation 3%
- Interest 7%
- Protection 1%
- Welfare 9%
Repeal? Replace? Repair

- A Better Way.
- A Balanced Budget for a Stronger America.

Current Uninsured Rate

U.S. Uninsured Rate is At An All-Time Low, But The Public Doesn’t Know It

Last reported measure: 8.6% through Qtr 1 2016

Source: Kaiser Family Foundation Website
Projected Medicare Spending, 2013-2023

Medicare Spending in Billions

Source: Caravan Health

Medicare Beneficiary Growth

Projected change in Medicare enrollment from 2000 to 2050

Source: statista – The Statistics Portal
**CMS Payment Reform**

Category 1 – FFS no link to quality; Category 2 – FFS with a link to quality; Category 3 – Alternative Payment Models built on FFS architecture; Category 4 – Population Based Payment

**Future of Medicare**

- Premium support. Voucher program?
- Risk transfer from Feds to Medicare Beneficiaries.
- Raise the age requirement? 67?
- Changes to the premiums paid:
  - Part A
  - Part B
  - Part D
Medicare Advantage enrollment has increased rapidly and is projected to continue to rise.

Medicare Advantage Enrollment (in millions), 2005-2024

Actual Enrollment

Projected Enrollment

Exhibit 1

Source: Kaiser Family Foundation

Share of Medicare Beneficiaries Enrolled in Medicare Private Plans, by State 2016

Figure 6

Share of Medicare Beneficiaries Enrolled in Medicare Private Plans, by State, 2016

National Average, 2016 = 31%

Source: Kaiser Family Foundation
Medicaid ACA Expansion

- ACA enrollment expanded Medicaid by 27 million people.
- Program today covers 74 million people.
- 24 percent of Medicaid enrollees are elderly or disabled, or both – they account for 60 percent of total costs.
- Costs are mostly driven by long-term care services and prescription drugs.

Medicaid Changes: Block Grant or Per Capita Cap

Source: Kaiser Family Foundation
Rural Hospital Closures: 2005 to 2016

Between January 2005 and December 2016, 122 rural hospitals have closed

Source: George Pink, Sharita R. Thomas, Bryntono G. Kaufman, G. Mark Holmes – NC Rural Health Research Program

Hospital Closure 2010 - 2016

www.eldeballity.com
Life Expectancy in United States

PUBLIC HEALTH

Life Expectancy In U.S. Drops For First Time In Decades, Report Finds

December 8, 2016 - 12:02 AM ET

- Only happened a few times in the past 50 years – last 1993.
- US overall dropped from 78.9 to 78.8 years
- US males dropped from 76.5 to 76.3 years
- US females dropped from 81.3 to 81.2 years

Price Changes

“The stuff we really need is getting more expensive. Other stuff is getting cheaper.”

Sources: The Washington Post, Wonkblog August 17, 2016
Future State – Areas to Focus

Consumers and their Experience
Current Patient Experiences

- Struggle to get a Physician appointment.
- Patients get lost on hospital campus.
- Sticker shock after receiving their bill.
- Do not know how to follow up.

Doesn’t this shout out the need for a more comprehensive patient experience strategy?

Average Annual Worker and Employer Contributions to Premiums and Total Premiums for Family Coverage, 1999-2016

<table>
<thead>
<tr>
<th>Year</th>
<th>Worker Contribution</th>
<th>Employer Contribution</th>
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<td>$4,247</td>
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<tr>
<td>2000</td>
<td>$1,919</td>
<td>$4,619*</td>
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<td>2001</td>
<td>$1,787*</td>
<td>$5,274*</td>
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<tr>
<td>2002</td>
<td>$2,137*</td>
<td>$5,866*</td>
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<td>2003</td>
<td>$2,412*</td>
<td>$6,657*</td>
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<td>$2,661*</td>
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<td>$2,713</td>
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<td>$2,713</td>
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<td>2007</td>
<td>$2,936*</td>
<td>$8,824</td>
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<td>2008</td>
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<td>2009</td>
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<td>$9,860*</td>
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<td>$3,997*</td>
<td>$9,773</td>
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<td>2011</td>
<td>$4,129</td>
<td>$10,944*</td>
</tr>
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<td>2012</td>
<td>$4,316</td>
<td>$11,429*</td>
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<td>2014</td>
<td>$4,823</td>
<td>$12,011</td>
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<tr>
<td>2015</td>
<td>$4,955</td>
<td>$12,591</td>
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<tr>
<td>2016</td>
<td>$5,077</td>
<td>$12,868</td>
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</tbody>
</table>

*Estimate is statistically different from estimate for the previous year shown (p < .05).

Average Annual Firm and Worker Premium Contributions and Total Premiums for Covered Workers for Single and Family Coverage, by Plan Type, 2016

**Worker Contribution** | **Employer Contribution**
--- | ---
**Family Coverage** | **All Plan Types - Family** | **HDHP/SO - Family**
 Worker Contribution ($5,277) | Employer Contribution ($12,448) | Worker Contribution ($12,865) | Employer Contribution ($18,142)
**Single Coverage** | **All Plan Types - Single** | **HDHP/SO - Single**
 Worker Contribution ($5,306) | Employer Contribution ($5,762) | Worker Contribution ($6,485) | Employer Contribution ($6,821)

*Estimate is statistically different from All Plans estimate by coverage type (p < .05).

**SOURCE:** Kaiser/HRET Survey of Employer-Sponsored Health Benefits, 2016.

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Single coverage – deductibles

**% of covered workers with a general Annual deductible for single coverage**

- 2006: 33%
- 2007: 43%
- 2008: 45%
- 2009: 46%
- 2010: 48%
- 2011: 50%
- 2012: 54%
- 2013: 57%
- 2014: 59%
- 2015: 64%
- 2016: 67%

**Avg. general annual deductible for covered Workers enrolled in single coverage**

- 2006: $584
- 2007: $615
- 2008: $646
- 2009: $677
- 2010: $708
- 2011: $739
- 2012: $770
- 2013: $802
- 2014: $833
- 2015: $864
- 2016: $895

*Estimate is statistically different from estimate for the previous year shown (p<.05).

Among Large Firms (200 or more workers) Offering Health Benefits, Percentage of Firms Offering Incentives for Various Wellness and Health Promotion Activities, 2016

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**Health Risk Assessments**
- 59% Incentives to Employees Who Complete HRAs
- 32% Opportunity to Complete Health Risk Assessment

**Biometric Screening**
- 53% Incentive for Employees to Complete Biometric Screening
- 31% Incentive for Employees To Complete Biometric Screening
- 8% Reward or Penalty For Meeting Biometric Outcomes

**Wellness Programs**
- 74% Programs to Help Employees Stop Smoking
- 68% Programs to Help Employees Lose Weight
- 73% Programs to Help Lifestyle or Behavioral Coaching
- 83% ANY Program Offered to Employees
- 32% Incentives to Encourage Employees to Participate in or Complete Wellness Program

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**What do we know about Individual Purchasing Behavior?**

**Choice of Metal Tier**
- Platinum: 9%
- Gold: 9%
- Bronze: 20%
- Silver: 65%
- Catastrophic: 5%

**Plan Choice within Metal Tier**
- 36% Lowest-Cost
- 43% Any other plan
- 21% Second lowest
- 6% Other plan
- 9% Any other plan

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**NOTE:** Among large firms that offer a health risk assessment, 54% had incentives or penalties to encourage employees to complete it. Among large firms that offer biometric screening, 59% had incentives or penalties to encourage employees to complete it and 14% had incentives or penalties for employees to meet a biometric outcome. Among large firms that offer a wellness program, 42% had incentives or penalties to encourage employees to complete it.

- Firms that offer either "Programs to Help Employees Stop Smoking", "Programs to Help Employees Lose Weight", or "Other Lifestyle or Behavioral Coaching".

**SOURCE:** Kaiser/HRET Survey of Employer-Sponsored Health Benefits, 2016.
Price Sensitivity

Cost-Conscious Behavior Affecting Pillars of Profitability

Consumers Paying More Out-of-Pocket

- Fall within H0HP deductible
- Fall within PPO deductible

MRI Price Variation Across Washington, DC

- Price-sensitive shoppers will be acutely aware of price variation
- MRI prices range from $400 to $2,183

Customer Journey vs. Individual Touchpoints

Individual touchpoints may perform well even if they overall satisfaction experience is poor!

Touchpoint Satisfaction

Registration: 85%
Primary Care: 90%
Radiology: 90%
Scheduling: 80%

I want to improve... the Journey?

End to end journey satisfaction: 55%

Customer Focused Initiatives

- Pricing transparency and pricing estimates.
- Wellness – healthy lifestyle, disease management, high-risk care management, population health.
- Multi access network – urgent care, same day primary care, same day specialty care.
- Reliable systems – consistency!
- Low cost alternatives.
- Loyalty rewards programs?
Embrace. Mobilize. Secure Data

Organizing Data

www.eidebally.com
Data Driven Transformation

We are pulling real time operational data that we didn't have before and learning things we didn't know - we're helping people to stop guessing.

We began diagnosing the correlation of how the staff and patient moves in the care process and the relation to quality and satisfaction.

We are starting to realize that new metric understanding is impacting our access, our care regiments, and how practices are designed.

New data is providing new questions and innovation is starting.....

Elements of Data Management in Health Systems

Data pools are expanding

- EMR's are gathering a sea of data and helping to understand cost of care.
- Real time location systems (RTLS) providing deeper information on “how” we work.
- EDW's – electronic data warehouses – getting reports out is very difficult.

Lagging information

- We keep reporting on what happened in the past.
- Lagging, operational data has limited usefulness.
- Staff need to know sooner of variation in operational costs.
- The speed we expect the data is quickly increasing.
Moving Closer to Real Time

- To the extent that we can pull costs from new Electronic Medical Records, costs associated with care are being recorded and available sooner in the care process
- Systems such as RTLS provide real time understanding of flow and resource use in the care process
- Operational Data is helping us understand Opportunity Costs
- Organizations that have invested into improvement programs are gathering new operational data that is leading to financial and care improvements!

A Shift Of Data Management

- Data sets will only get bigger
  - More reporting will be requested
- Reports are going Mobile
- New streams of data are being added
  - Real Time Information
  - Correlative Information
- Costs are being understood in more levels of the Organization
- Advanced reporting capabilities will help us educate people and contain costs
What’s Fueling the Paradigm Shift

1) Operational data is becoming more abundant.

2) Care providers are learning the value of operational data closer to the point of care.

3) Data is getting more mobile and providers understanding how mobility can help drive decisions.

Leveraging BI to Gain Understanding
Better Operational Data – Better Engagement

What’s your data worth?

Advertised Prices on the Black Market

- US based credit card with verification | $1-$6
- An identity (including US Bank Account, credit card, date of birth, and gov. issued ID) | $14-$18
- List of approx. 29,000 emails | $5
- Online bank account with $9,900 balance | $300
- Phishing Website Hosting | $3-$5
- Verified PayPay Account with balance | $50-$500
- Skype Account | $12
- One month World of Warcraft Account | $10

Value to a Hacker:

- 40M records sold for $2 per record
- $80M in profit
Target Breach | The True Costs

Tangible Costs

$148M | Breach
$100M | Better Security
$86M | VISA & MasterCard Settlement

And then some...

- CEO | FIRED
- Board of Directors | SUSTAINED CLASS ACTION LITIGATION FOR NEGLIGENCE
- Customers | UNKNOWN NUMBER LOST

No Business is Safe

- 1 in 4 organizations have experienced an advanced persistent threat (APT) attack
  - Source: SANS 2018 APT Study
- 97% of people believe APTs represent a credible threat to National Security and Economic Stability
  - Source: SANS 2018 APT Study, October 2016
- 1 billion personally identifiable information (PII) records were stolen in 2016
  - Source: 2016 Cost of Data Breach Study-Global Analysis, IBM and Ponemon Institute, May 2017
- 74% believe the likelihood of an organization being hacked through IoT devices is high or medium
  - Source: SANS 2017 IoT-Proof Your Business-Internet Study
Establishing a Culture of Security

The Journey begins with a Compass
Variation

Variation Principles

![Diagram showing standard deviation with percentages]
Expense Breakdown Averages:

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage Range</th>
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</thead>
<tbody>
<tr>
<td>Salaries, wages &amp; benefits</td>
<td>40% to 65%</td>
</tr>
<tr>
<td>Equipment and Supplies</td>
<td>15% to 25%</td>
</tr>
<tr>
<td>Purchased services</td>
<td>10% to 15%</td>
</tr>
<tr>
<td>Professional fees</td>
<td>5% to 7%</td>
</tr>
<tr>
<td>Depreciation</td>
<td>6% to 8%</td>
</tr>
<tr>
<td>Interest</td>
<td>5% to 8%</td>
</tr>
<tr>
<td>Other</td>
<td>10% to 13%</td>
</tr>
</tbody>
</table>

Comprehensive Care Joint Replacement

Exhibit 1—Spending Variation by Episode
DRG 470 – Knee Replacements

Source: DataGen Healthcare Analytics Whitepaper - 7 things every PAC Provider should know about CCI.
Comprehensive Care Joint Replacement

Exhibit 2—Average Episode Spending by First PAC Setting

Source: DataGen Healthcare Analytics Whitepaper - 7 things every PAC Provider should know about CCJR.

One State – 40 Hospitals Med/Surg Dept
One State – 9 Hospital Lab Departments

Laboratory Hours per Billed Test

- Hours per Billed Test
- 2014
- 2015

Funneling Information For New Conversations

Value Add Conversations

- Ancillary Services
- Patient Cycle Time
- Physician Value Add Time

Value Add Conversations
### Clinic Workflow Throughput Report

<table>
<thead>
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<th></th>
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<td>0:02:56</td>
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<td>Provider 2</td>
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<td>0:09:52</td>
<td>0:57:40</td>
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<td>0:04:10</td>
<td>0:57:14</td>
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<td>38</td>
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<td>0:04:11</td>
<td>1:06:23</td>
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<td><strong>31.7</strong></td>
<td><strong>0:08:02</strong></td>
<td><strong>0:03:41</strong></td>
<td><strong>0:54:42</strong></td>
</tr>
</tbody>
</table>

![Patient Visits by Provider](chart1)

### "Seeing" Layers of Variation & Asking Why

- **Why the outliers?**

![Wait Time Prior to First Encounter](chart2)

![Patient Cycle Time](chart3)
Ambulatory Reporting – Patient Cycle Time

Cycle Time Reporting

A Cumulative Measure Presented Our Waste

Cycle Time Trending
Capital Asset Investment

Financial Institutions Industry

• Bank foot traffic
  • 1980's
  • 2020's

• Bank branch location back office space has gone from 40% of the building square footage to 10%!
• Majority of the capital investment now is in systems for mobile banking and security.
How well aligned and integrated are your:

- Strategic Plan
- Annual Budget
- Capital Budget

New Technology For Care Resource Management

Software and Hardware
Enterprise Visibility

Disruptor? Transformer? Innovator?

Target Pharmacies now operated by CVS

Walmart

Health
- Wellness Center
- Allergies
- Diabetes Wellness Center
- Diet & Exercise
- Eye Health Center
- Heart Health
- Men's Health
- Oral Health
- Pain Management
- Sleep Management
- Vitamins Center
- Women's Health

Walmart Health

Healthcare Clinic

Locate
- Schedule Appointment
- About Your Visit
- Our Services
- Insurance & Pricing
- Make a Payment
- Local Health Systems
- Connect to

www.eidealily.com
Disruptor? Transformer? Innovator?

IBM Watson Health

The Data Explosion
Medical data is expected to double every 73 days by 2028.

The Great Unknown
80% of health data is invisible to current systems because they are unstructured. Watson Health can see them.

A Quick Study
Watson can read 40 million documents in 15 seconds.

Broad Consensus
85% of healthcare professionals believe it will positively impact their business.

Technology In The Patient Care Space

"Know me"
- Personalized Digital Care
- HIPAA Compliant System of Engagement
- Improved outcomes & Patient Satisfaction

"Inform me"
- Provider of Choice
- Targeted Marketing Automation
- Better Acquisition & Retention

"Empower me"
- Trusted Health & Wellness Resource
- Patient Centric Data View
- Lifetime Advocacy

www.eideballly.com
How Can Technology Help Bring Information to Care?

Start by creating 1:1 customer journeys

- **Free the Data**
  Build a single view of your customers, integrate data from any source, and make it actionable

- **Personalize Journeys**
  Trigger timely, unique, and meaningful messages, based on real-time customer behavior

- **Engage Cross-Channel**
  Deliver relevant content on email, mobile, social, ads, and the web

- **Analyze Everything**
  Measure the impact of your business and optimize every interaction

Patients Journey

- Ads
- Web
- Email
- Mobile
- Social
- Group Messaging
- Apps
- Sales
- Service
- Community
- Audience
- Personalization
- Content
What We’re Doing For Health Care

With a proven methodology and a world class platform

**Acquire & Retain**
- Convert Anonymous Users
- Deliver Personalized messaging
- Stay in touch without medical reasons
- Improve Engagement
- Drive Advocacy

**Reduce Cost**
- Streamline intake
- Optimize Marketing Spend
- Automate Experiences
- Optimize data investments
- Reduce Custom Integrations
- Identify Best Performing Programs

**Secure Revenue**
- Drive More Conversions
- Accelerate Decision Paths
- Increase Referrals
- Boost Donations
- Become Provider of Choice

Disruptor? Transformer? Innovator?

  - Radiology
  - Lab
  - Home Health
  - Physician visits
  - Therapists
  - Emergency room
Meeting the Triple Aim Challenges

Four Elements for Operational Transformation

Intelligent Process Design

Mobilizing Data
- Data
- Understanding
- Knowledge

Mobilizing Ideas
- Ideas
- Action
- Results

Continuum of Operational Intelligence
RTLS and Operational Information
DATA

Intelligent Improvement
Improvement Methodologies
PEOPLE
Clarity Builds Innovation and Transformation

Find your operational data. Invest if you need to get them

Synergize your programs, design it so it works without creating more silos

Trust your team, they are incredibly intelligent and passionate about patient care

Create different conversations and a structure that captures and manages ideas and change.

Business Valuation…Future Considerations

• Capital Investment strategy is required for:
  1) Current routine needs and,
  2) To fund strategic investments.

• Cannot only take actions that improve short-term (yearly) earnings at the expense of long-term value creation.

• Calculated risk-taking, in the form of investment, will be the Healthcare Providers that distinguish themselves as successful in the long run.

• What steps are you putting into your Capital Investment philosophy to ask questions about capital investments that maintain Relevancy and Innovation practices?
Leadership Is Vital To The Journey

- One of the recurring sources of health care waste stems from staff not having the information they need to make better decisions.

- Second source of waste is old information that negatively impacts culture and engagement.

- Understanding where and how resources are allocated helps staff drive utilization.

- Leaders have a responsibility to build a culture for innovation.
These folks know their numbers

- **Walmart**
  - Growing to 150 Walmart Care Clinics in 20 Different Markets
- **Walgreens**
  - Currently has 400 Health Clinics
- **CVS**
  - Continued Expansion of 1,000 clinics to 1,500 by 2018

In 2014, retail clinics had 1% of the primary care market. Today that has grown to over 2% with a continued reach into the patients mindset.

Robert Wood Foundation

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How we think about creating access?

### Assuming

- “We need more exam rooms”
- “We need to hire more clinicians”
- “We need to buy more equipment”
- “We need more, more, more…”

### Discovering

- We’re finding exam utilization rates of <25% (time provider is in room with a patient)
- We’re finding clinician value added time to be <50% of their day
- We’re finding equipment utilization rates (time associated with patient care) to be <30%
- “No, we need to utilize resources better”

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Physician Issues

• During the office day, physicians spent 27% of their total time on direct clinical face time with patients and 49.2% of their time on the EHR and desk work.
• Outside office hours, physicians spend 1 to 2 hours of personal time each night doing additional computer and other clerical work.


“The most effective thing we can do to reduce physician burnout is to improve workflow.”

Dr. Christine Sinsky
President, Professional Satisfaction
American Medical Association

Surround yourself with....

• People who round out your weaknesses and will call you on them.
• People who have different styles, interests and experience.
• Highly motivated people.
Questions?

Thank You!

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