Nurses at the Forefront: Care Delivery and Transformation through Health IT

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- Nation’s largest non-profit health plan
- Integrated health care delivery system
- **9.1 million members**
- **16,000+ physicians**
- **174,000+ employees (including 48,000+ nurses)**
- Serving 8 states and the District of Columbia
  - **38 hospitals**
  - More than 600 medical offices
  - $50.6 billion operating revenue*

Scope includes ambulatory, inpatient, ACS, behavioral health, SNF, home health, hospice, pharmacy, imaging, laboratory, optical, dental, and insurance
# HIMSS EHR Adoption Model

<table>
<thead>
<tr>
<th>Stage</th>
<th>Cumulative Capabilities</th>
<th>2013 Q3</th>
<th>2013 Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 7</td>
<td>Complete EMR; CCD transactions to share data; Data warehousing; Data continuity with ED, ambulatory, OP</td>
<td>2.2%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Stage 6</td>
<td>Physician documentation (structured templates), full CDSS (variance &amp; compliance), full R-PACS</td>
<td>11.1%</td>
<td>12.5%</td>
</tr>
<tr>
<td>Stage 5</td>
<td>Closed loop medication administration</td>
<td>20.9%</td>
<td>22.0%</td>
</tr>
<tr>
<td>Stage 4</td>
<td>CPOE, Clinical Decision Support (clinical protocols)</td>
<td>15.1%</td>
<td>15.5%</td>
</tr>
<tr>
<td>Stage 3</td>
<td>Nursing/clinical documentation (flow sheets), CDSS (error checking), PACS available outside Radiology</td>
<td>31.9%</td>
<td>30.3%</td>
</tr>
<tr>
<td>Stage 2</td>
<td>CDR, Controlled Medical Vocabulary, CDS, may have Document Imaging; HIE capable</td>
<td>8.4%</td>
<td>7.6%</td>
</tr>
<tr>
<td>Stage 1</td>
<td>Ancillaries - Lab, Rad, Pharmacy - All Installed</td>
<td>3.5%</td>
<td>3.3%</td>
</tr>
<tr>
<td>Stage 0</td>
<td>All Three Ancillaries Not Installed</td>
<td>6.9%</td>
<td>5.8%</td>
</tr>
</tbody>
</table>

Data from HIMSS Analytics™ Database © 2014

N = 5,437  
N = 5,458
Model for Clinical Transformation

- Build evidence out of practice
- Collaborate to foster knowledge translation
- Leverage analytics to extract actionable knowledge
- Focus on “Making it Easy to do the Right Thing”
- Set standards based on clinical goals, and evidence-based practice
- Leverage EHR to optimize workflow and support clinical decision making
- Measure the impact of the change through outcomes analysis and research
- Develop reports to monitor the practice change
- Collaborate to foster knowledge translation
Current State

- Processes are manual / duplicative
- Cognitive overload
- Variation
- Interruptions
- Alarm fatigue
- Patients and families often feel un-empowered
- Technology is often not integrated
- Information buried; not accessible, intuitive, contextual
- The environment does not support efficiency
- Communication gaps,
- Insufficient Clinical Decision Support to drive the timely, accurate documentation
Kaiser Permanente’s Call To Action

• Vision
How might we disruptively innovate and transform the inpatient work environment to enable simple, reliable patient care delivered by nurses and their inter-professional partners through the wise use of data, analytics, and information technology?

• KP Smart Care Goals
  – Simplify the nurse’s path
  – Support the nurse with knowledge
  – Reduce the nurse’s non-value add tasks
  – Develop a vision for the nurse of the future in an advanced technical environment

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#HealthIT4Nurses
## KP SmartCARE Strategy

**Clinical Transformation**

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rapid Sign-On</td>
<td>Eases the burden and repetition of logging-in to the EHR every few minutes</td>
</tr>
<tr>
<td>Clinical Intelligence</td>
<td>Provides cognitive support and real-time contextual information</td>
</tr>
<tr>
<td>Workflow Automation</td>
<td>Manage tasks, schedules and events</td>
</tr>
<tr>
<td>Mobility</td>
<td></td>
</tr>
</tbody>
</table>

Biomedical Device Integration (BDI) captures patient data automatically resulting in real-time, accurate, easily available patient information. BDI is foundational to the KP SmartCARE Strategy.
Moving to Real Time Data

• Promotes patient safety and satisfaction; **Patient-Centered**
• Provides dynamic triggers for key clinical indicators; **Real Time**
• Improves usability and staff satisfaction: **Intelligent**
• Engages staff, managers & quality nurses; **Collaborative**
• Decreases steps in the process workflow; **Efficient**
• Links to flowsheet group for documentation; **Actionable**
• Improves compliance with timed interventions such as pain reassessment and turning/repositioning; **Effective**
*All improvements in pressure ulcer prevention outcomes are the result of a comprehensive and multi-pronged approach to performance improvement.
# The Value of Health IT

<table>
<thead>
<tr>
<th>Health IT Action</th>
<th>KP Location</th>
<th>Benefit Realized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rapid Sign On to EHR</td>
<td>Northwest region</td>
<td>8 seconds/ log on X 100 log on’s / day = 13 min direct care back and improved</td>
</tr>
<tr>
<td></td>
<td></td>
<td>documentation at the point of care.</td>
</tr>
<tr>
<td>Evidence-based bundles for nursing documentation in EHR in combination with</td>
<td>All hospital regions</td>
<td>Improved documentation compliance and quality outcomes.</td>
</tr>
<tr>
<td>Real-time Clinical Care Dashboard</td>
<td></td>
<td>Fall Rate steadily decreased after implementation of fall bundle:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dec 2012 Rate 1.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dec 2013 Rate .04</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HAPU Incidence</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dec 2011 1%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dec 2013 .04%</td>
</tr>
</tbody>
</table>
Moving to an Integrated Environment

Convergence of:

- voice
- secure messaging
- alerts
- presence
- device integration
- workflow automation
- usability
Four Sites of Care

1. Staffed Beds
2. In-Home
3. Face-to-Face
4. Virtual

#HealthIT4Nurses
IOM: Best Care at Lower Cost

Recommendations

1. Improve the capacity to capture clinical, care delivery process, and financial data for better care, system improvement, and the generation of new knowledge.
2. Involve patients and families in decisions regarding health and health care, tailored to fit their preferences.
3. Accelerate integration of the best clinical knowledge into care decisions.
4. Continuously improve health care operations to reduce waste, streamline care delivery, and focus on activities that improve patient health.
5. Improve coordination and communication within and across organizations.
Themes for Transformation

• Inter-professional teams & Relational Coordination
• Evidenced based and personalized care
• Clinical intelligence and clinical decision support
• Predictive analytics
• Integration of practice, informatics & research
• Real time data for clinical decision making
• Patient & family engagement/ Patient entered data
• Digitally enabled clinicians and patients
• Technology to improve accuracy, latency & efficiency
• Performance Improvement and removing waste
• Usability
• Virtual Care
Boone County Community Clinic

- Independent 501c(3)
- Community Health Center
- Nurse Practitioner Clinic
- Primary Care, Behavioral Health and Women’s Health
Community Health Centers

Number of Patients Visiting U.S. Health Centers Grows, 2001–2011

Challenges in Rural Populations

Vulnerable Population
- Rural, low income, low education, etc.

Healthcare Coverage
- Uninsured, Underinsured and Medicaid

Increasing Demand for Service
- Limited access to care
- Transportation limitations
- Limited Health Care providers

urban areas 81%
rural areas 19%
Rural Health

Delay Care causing:

• Higher incidence of chronic disease
• Higher acuity of disease
• Poor self management
• Increased cost for community
• Higher incidence of untreated mental health conditions
46 Million Americans Lack Health Insurance

The 47 Million* Uninsured

- I CAN AFFORD IT, BUT I DON'T WANT IT.
- I'M 18-25 YEARS OLD, AND I'M INDESTRUCTIBLE.
- I'M AN ILLEGAL, AND I'M NOT HERE.
- I'M IN BETWEEN JOBS AND ONLY TEMPORARILY UNINSURED.
- I AM ELIGIBLE FOR GOVERNMENT HEALTH PROGRAMS BUT HAVE NOT SIGNED UP.

18 Million
84 Million
126 Million
94 Million
8 Million
3.5 Million

*Adds up to more because some categories overlap

American Cancer Society (2010)
Challenges for Small Clinics

Financial Constraints

• Large federal funding only for FQHC
• Low staff ratio to patients
• Space constraints
• Self supporting
Challenges

Information Technology

• Cost
• Interfacing
• Reports
• Training and Navigation
Electronic Health Records

Benefits of EHR

• Improved access to information
• Accurate Health Information
• Empowering Patients
• Safety
Solutions

- Integrated, Holistic Care
- Collaboration
- Grants
- Sliding Fee Scale
- Utilizing EMR
- State Insurance
- Funding Sources from Special Projects
Solutions-Specialized Programs

HERS for HER

- Generational Poverty
- Address health issues
- Include behavioral health issues
- Motivational Interviewing
- Solution Focused Therapy
Leveraging the EHR

Patient Management

• Clinical Efficiency
• Clinical Summaries
• e-Prescriptions
• Lab Interfaces
• Reports
• Patient Portal

Quality Improvement

• Outcomes Tracking
• Education Resources/Materials
• Minimizing Healthcare Cost
• Maximizing Healthcare Incentive Dollars
Meaningful Use Stage 1

- 30% Threshold for Medicaid
- Risk Assessment: Purdue REC
- Dashboard
Meaningful Use Stage 2

• Patient Engagement
• Patient Portal
• Secure Messaging
Patient Centered Medical Home

• Survey Tool
• Policies and Procedures
• Coordinated Care Teams
• Safety
Comments or Questions?

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