The Transition to Value-Based Health Care

The Role of Digital Health in Value-Based Health Care

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Agenda

• Introduction
  • Digital Health Technologies Relevant to Value-Based Health Care
  • Challenges in Selecting / Integrating Digital Health Technologies into Value-Based Health Care
  • Questions
Introduction

Value-based health care is a reimbursement system that:

• Derives from a recognition that fee-for-service models can be inefficient and can implicitly encourage delivery of unnecessary (e.g., duplicative) or ineffective (i.e., not evidenced-based) care

• Elevates value-centric outcomes over value-agnostic output by promoting the delivery and consumption of more informed and better curated care
Introduction

Quality

• VBHC Compensates health care providers for the quality of care they provide not the volume of procedures they perform

• Quality is a relative, multi-factorial metric that varies depending on the component of care

<table>
<thead>
<tr>
<th>Quality Type</th>
<th>Description</th>
<th>Challenges</th>
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<tbody>
<tr>
<td>Structure</td>
<td>Evaluates the characteristics of a care setting (e.g., facilities, personnel, and policies related to care delivery)</td>
<td>Difficult to measure impact of structure on patient health</td>
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</tbody>
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| Process      | Evaluates patient health as a result of the care received and whether care goals are accomplished | Requires detailed information that can be difficult to gather
|              | Looks at the effects -- intended or unintended - that care has had on patient health, health status, and function | Social determinants of health (access to safe housing, social support, economic opportunity)                         |

1 Source: familiesusa.org/sites/default/files/product_documents/HSI%20Quality%20Measurement_Brief_final_web.pdf
# Introduction

## Quality

<table>
<thead>
<tr>
<th>Quality Type</th>
<th>Description</th>
<th>Considerations</th>
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<tbody>
<tr>
<td>Outcome</td>
<td>Evaluates whether services provided are consistent with routine clinical care</td>
<td>Broadly focused on areas of prevention and chronic disease management; lacking in key areas of care that can also contribute to outcomes, e.g., care coordination and technology</td>
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<tr>
<td>Patient Experience</td>
<td>Evaluates feedback on patients’ experiences of care</td>
<td>Patient experience measures should be developed with patient input to ensure that they are representative of their needs, values, and preferences</td>
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# Introduction

Establishing Quality Measures

<table>
<thead>
<tr>
<th>Research</th>
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<tr>
<td>Evidence Base</td>
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<tr>
<td>Clinical Guidelines</td>
</tr>
<tr>
<td>Standard of Care</td>
</tr>
<tr>
<td>Measure Development</td>
</tr>
<tr>
<td>Finalize Quality Measure</td>
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<td>Measure Endorsement</td>
</tr>
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1 Source: familiesusa.org/sites/default/files/product_documents/HSI%20Quality%20Measurement_Brief_final_web.pdf
Establishing Quality Measures

- **Who contributes to the evidence base**
  - Public Agencies – NIH, AHRQ, PCORI
  - Private Companies – Pharmaceutical companies, medical device developers, AMCs, advocacy organizations, professional societies

- **Who develops the quality metrics**
  - Government Agencies – CMS, AHRQ
  - Private non-profit organizations – The Joint Commission, NCQA
  - For-profit companies – Healthgrades, U.S. News and World Report

- **Who endorses the quality measures**
  - Consensus of stakeholders including consumer groups and professional societies
Introduction

The Role of Data
Introduction

The Role of Data

• Data Sources
  – Administrative Data
  – Disease Registries
  – Medical Records
  – Research Databases
  – Qualitative Data (e.g., patient surveys, focus groups, and interviews)
  – Patient Reports

• Data Analytics

• Digital Health Technologies

Next:
Digital Health Technologies Relevant to VBHC
Agenda

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Digital Health Technologies Which May Advance Value-Based Health Care

Source: www.cms.gov
Digital Health Technologies Which May Advance Value-Based Health Care

**EHR MEANINGFUL USE INCENTIVE PROGRAMS**

- **Stage 1**: Data capture and sharing
  - Improved quality of patient care
  - Better clinical outcomes
  - Improved population health outcomes
  - Increased transparency and efficiency
  - Empowered individuals
  - More robust research data on health system

Source: hitconsultant.net
Digital Health Technologies Which May Advance Value-Based Health Care

- Electronic Health Records
- Health Information Exchanges
- Clinical Decision Support
- Personal Health Records / Patient Portals
- Remote Patient Monitoring
- Patient Care Alerts
- Secure Clinical Messaging
- Data Analytics
Digital Health Technologies Which May Advance Value-Based Health Care

Electronic Health Records

- Digitized versions of patients’ paper charts
- Real-time, patient-centered records
- Certified EHR technology (CEHRT) meets certain standards and implementation specifications under the ONC Health IT Certification Program, and as required under the EHR meaningful use program

Relevance:

- Building block for digital health technologies, widely adopted
- Incorporates EHR modules that include key functionalities, such as clinical decision support, computerized provider order entry, electronic prescribing, medication reconciliation
- Requirements for interoperability, data portability, safety and usability
- Increasing focus on clinical quality measures
Health Information Exchanges

- Real-time, interoperable exchange of information between health care stakeholders
- The ability not to just exchange information, but to use and interpret the information that has been exchanged
- Different names used over the years for this concept, including RHIOs, HIOs, etc.

Relevance:
- Used for sharing data across providers in all care settings – ambulatory, acute, post-acute, long-term, and specialty
- Enables better continuity of care
- Also potentially enables benchmarking / analysis
- Exchange of information incentivized in value-based payment models
Clinical Decision Support

- Clinical guidelines
- Condition-specific order sets
- Computerized alerts and reminders for clinicians and patients
- Diagnostic support
- Documentation templates

Relevance:
- Provides timely information to clinicians and patients
- Can potentially lower costs and improve efficiency
- Supports evidence-based care and avoidance of errors / adverse events
- Supports clinically integrated care
Personal Health Records / Patient Portals

- An adjunct tool related to the provider-based EHR
- Consumer-facing, may be consumer-controlled
- Repository of personal health information and health history

Relevance:
- Empowers patients to track and monitor care
- Serves as an additional means of preserving historic health information
- May facilitate care continuity
Remote Patient Monitoring

- Technology that enables the monitoring of patients outside of the clinical setting
- Particularly useful for the monitoring of the elderly and chronically ill
- Monitoring can focus on particular sets of information relevant to various disease states, such as vital signs, heart rate, blood pressure, blood sugar, weight, blood oxygen levels

Relevance:
- Allows for close monitoring of and more communication with the patient, which enables earlier intervention
- May reduce avoidable hospitalizations, ED visits, primary care visits, complications, etc. as well as costs
- Powerful tool for care managers and primary care physicians
Digital Health Technologies Which May Advance Value-Based Health Care

Patient Care Alerts

- Prompts and other reminders sent to healthcare provider intended to provide actionable information
- Automated system may identify instances where there is a potential gap in care or where certain follow-up is otherwise required
- May be prioritized based on urgency or severity

Relevance:
- May reinforce certain care protocols
- Enables clinical workflow optimization
Secure Electronic Messaging

- Technology enabling providers to electronically exchange clinical messages with one another or with patients
- Function embedded in CEHRT
- Communication with patients required under meaningful use

Relevance:
- Vital to care coordination
- Improves patient access to health care providers
Data Analytics

- Healthcare analysis activities that can be undertaken as a result of data collected from various sources (such as EHR data, billing data, cost data, patient satisfaction data)
- Involves data capture, data provisioning, data analysis / mining
- Big data initiatives

Relevance:
- Enables examination of patterns in data to determine how to improve clinical care while reducing unnecessary costs
- Predictive clinical modeling
- Evidence-based population health management
Digital Health Technologies Which May Advance Value-Based Health Care

Recap

• Wide array of technologies
• Increasingly sophisticated tools and functionality
• Complexities associated with selection and integrating such technologies into operations in general, and into Value-Based Health Care Initiatives in particular

Next: Challenges in Selecting / Integrating Digital Health Technologies into Value-Based Health Care Initiatives
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• **Challenges in Selecting / Integrating Digital Health Technologies into Value-Based Health Care**

• Questions
Integrating Digital Health Technologies into Value-Based Health Care Initiatives

The initial questions of “fit”

• Ensuring clinical program supports /needs a digital health technology

• Tailoring the digital health technology to the value-based program

• Consciously building a full clinical program around the digital health technology

• Articulating the value proposition
Integrating Digital Health Technologies into Value-Based Health Care Initiatives

Compliance and Administration Challenges

• Thinking through governance, especially where multiple stakeholders
• Establishing policies on the use of the digital health technology
• Considering standards, use cases, limitations
• Training staff on, and “managing to,” the policies, standards, etc.
• Reviewing, negotiating, customizing, and “managing to” the agreements
  - Digital health licensing agreement
  - Participation agreement (e.g., HIE participation agreement)
  - Patient-facing terms of use and privacy policies (e.g., for patient apps and portals)
  - Patient consents and authorizations
Integrating Digital Health Technologies into Value-Based Health Care Initiatives

Technological and Analytic Challenges

- Disparate data sources
- Large volumes of data
- Unstructured data
- Interoperability constraints and information blocking
- Data aging
Privacy Challenges

• De-identification
• Clinical data privacy
• Research data privacy
  – Authorizations and consents
• Variations in state laws (e.g., with HIEs)
• Privacy breach risk
Integrating Digital Health Technologies into Value-Based Health Care Initiatives

Information Security Challenges

• Security at all stages of the data flow
• Use of non-standard technology (e.g., in research space)
• Rise in “BYOD” systems (e.g., remote patient monitoring systems)
• Connected devices, EMRs, other platforms
• Increasing enforcement focus on the Security Rule
• Security breach risk
  – Cybersecurity
  – Ransomware
Additional Considerations

Considerations for Providers

• Maintaining patient trust
• Fostering patient engagement
• Understanding and evaluating digital technologies
• Managing additional data reporting obligations
• Coping with possible information overload and “notification fatigue”
• Rethinking organizational structures, skill sets
• Cooperating with payors, device companies, and others on data analytics
• Rethinking the data-reimbursement link
Additional Considerations

Considerations for Payors

- Playing an enhanced role in gathering, de-identifying, aggregating, analyzing data
- Establishing additional reporting/ participation requirements for providers
- Understanding and strategizing around predictive analytics
- Embracing the evolving roles of device companies, other players
- Rethinking the data-reimbursement link
Considerations for Digital Health Industry

• Managing the increased patient-facing technology demand from patients, providers
• Responding to payor and provider demands for services across the data life span: collection, standardization, de-identification, aggregation, predictive analysis
• Meeting the provider and payor demand for “evidence-based” technologies
• Satisfying demand for digital technologies that are clinician-friendly and patient-friendly
• Considering whether to make regulatory compliance a de facto requirement
• Placing additional focus on the employer market (e.g., wellness programs, telehealth)
• Rethinking the data-reimbursement link
Agenda

- Introduction
- Examples of Digital Health Technologies Relevant to Value-Based Health Care
- Challenges in Selecting / Integrating Digital Health Technologies into Value-Based Health Care

- Questions
Questions?

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