VCU HEALTH eCQM JOURNEY

Building High Reliability Culture

High Reliability principles and practices
Launched Safety First Every Day
--Safety 101 trained 16K
--Safety Stars >350
--Safety Coaches >200
Strong leadership commitment to Safety, Quality & Service

IT-Quality Collaboration & Partnership

Leveraging people, process and technology for improved care and outcomes.
Strong internal partnerships

Expanding capabilities in Science of Improvement

Implementation of LSS alongside Model for Improvement/PDSA
Training in science of improvement; Integration of learners
Building QAPI model – decentralized improvement

eCQM Journey

Discovery | False starts | Regroup | Recommit | Almost there
HRO Journey
**What is a High Reliability Organization?**

“An organization that has succeeded in avoiding catastrophes in an environment where adverse events can be expected due to risk factors and complexity”

Examples:
- Aircraft Carriers
- Air traffic control systems
- Intensive Care Unit
- Fire Incident Command systems

*Not* High Reliability:
- Starbucks
- Amazon
- Mining
VCU HEALTH IS COMPLEX, HIGH RISK

1100 Licensed Beds

11000 Employees

200+ Specialties

36,000 discharges
600,000 OP visits
90,000 ED visits

Trauma, Burn, Cancer, Critical Care, Transplant, Artificial heart, etc.

11000

5000 Learners

Health Sciences Schools
- VCU School of Allied Health Professions
- VCU School of Dentistry
- VCU School of Medicine
- VCU School of Nursing
- VCU School of Pharmacy

Colleges and Schools
- College of Humanities and Sciences
- Graduate School
- L. Douglas Wilder School of Government and Public Affairs
- School of the Arts
- School of Business
- School of Education
- School of Engineering
- School of Mass Communications
- School of Social Work
- School of World Studies
**RELIABILITY CULTURE BY DESIGN**

**VALUES, VISION, “ZERO” GOAL**

**Values:**
- Safety
- Teamwork
- Accountability
- Relationships
- Service that Shows I Care

**Vision:** To be America’s safest & most caring health system

**Goal:** ZERO events of preventable harm to patients, team members, and visitors

**Common Purpose:**
Our caring service begins with me

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*VCU Health*
Leaders actively manage the system …

Our approach to quality is based in reliability science. **NOT** externally driven; rather, driven by our values, vision and goals.

**Hallmarks:**

- Safety as core value.
- Reliability leadership methods.
- Behavior expectations for error prevention.
- Transparency.
- Robust science of improvement.
HRO Journey – “Early” Results

Winner of the AHA–McKesson Quest for Quality Prize (2014)

Improvement in ALL domains of AHRQ Safety Culture Survey

- Nearly 90% reduction
- >80% reduction

50% reduction in SSER
40% increase in voluntary event reporting

Management support for patient safety
“What gets measured, gets managed”

-Peter Drucker

So, be careful what you measure – and how.

VCUHS approach to eCQMs:

- Must fit high reliability approach of our quality program
- And meet our rigorous data quality (accuracy) standards
- We will not simply check the regulatory box - we will invest to improve patient care
eCQM Journey
VCUHS’ Approach to eCQMs:

- Primary goal: To improve clinical care
- Secondary goal: To meet regulatory reporting requirements & support value based reimbursement arrangements
- QUALITY measures, not IT measures
- Full integration with quality/safety program [viewed as “just” another way of gathering quality data]
  - Accurate data for clinical improvement
  - Integration into existing dashboards
  - Inclusion in existing OPPE (Ongoing Professional Practice Evaluations, or provider profiles)
  - For use by existing quality committees, structures – for improvement
eCQM Regulatory Timeline

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*Safety First Every Day.*

VCU Health
2016 “RESTART” ...
BUT, WITH A DIFFERENT LEVEL OF EXPERTISE

Two prior eCQM vendor implementations – “unsuccessful” in meeting VCUHS goals

Executive and Quality leaders reaffirm commitment

Comprehensive vendor search and assessment process began

VCUHS selects Medisolv as its eCQM vendor partner and implementation team formed consisting of senior leadership, enterprise analytics, information technology, financial services, laboratory, pharmacy, clinicians, and quality experts in clinical informatics, data abstraction, and data science.

Goal: Measure performance accurately & improve care
WHAT ARE eCQM CHALLENGES FOR VCUHS?

**eCQM**

**eCQM DATA CAPTURE ALGORITHM**

**Measure Specification**

**Data Element**

- Are there multiple ways to capture data element?
  - NO → Is field accessible?
  - NO → Is it a discrete field?
  - NO → Is there standard nomenclature attached?
  - NO → Is the data validated?
    - NO → Vendor for Calculation
      - YES → Metric ready for use in quality programs & improvement efforts
        - NO → eCQM DATA CAPTURE ALGORITHM

- YES → What is the source of truth?
  - NO → Is the field fully adopted?
    - NO → Enhance Adoption
    - YES → Add Standard Nomenclature Code

- NO → Create Interface

- NO → Build discrete field

- NO → Validate data
PROGRESS/RESULTS TO DATE

2016 CMS IQR eCQM submission – three months before the deadline, and less than eight months after selecting Medisolv as VCUHS’ partner.

7 accurate eCQM’s – ready for use in improvement activities.
• CMS55 ED Arrival to Admit
• CMS111 ED Decision to Admit
• CMS26 Peds Asthma
• CMS31 Infant Hearing Screen
• CMS9 Exclusive Breastfeeding
• CMS102 Assessed for Rehab
• CMS72 Anti-Thrombotic by Day 2

eCQM expansion
• plan to double IQR eCQM submission to 8 eCQMs in 2017
• implement Provider module for QPP/MIPS quality reporting
PROGRESS (CONTINUED)

Management of Administrative Data
• Standard nomenclature codes added to discharge dispositions, payers, sex, race and ethnicity resulting in seamless data flow from system to system

Clinical Decision Support Rules – enhancements resulted in improved data capture for “history of procedure or immunization” for:
• CMS127 for pneumococcal vaccination
• CMS125 Breast Cancer screening
• CMS131 Diabetic Eye
• CMS130 Colorectal Cancer screening
• CMS147 Influenza immunization

Clinical Decision Support Rules – enhancements resulted in improved data capture for exclusions and exceptions for
• CMS139 Falls screening
• CMS2 Depression screening
• CMS149 Cognitive assessment.
Documentation improvements:

1. CMS 35v1: Hearing Screening – enhanced detail in the infant Hearing Screening documentation

2. CMS 102v5: Assessed for Rehab - added standard nomenclature to clinician note
1. Strong quality program leadership
2. Develop (& stick to) your vision/long-term strategy
3. Dedicate resources
4. Develop your experts/expertise
5. Standard nomenclature codes
6. Quality/IT partnership
7. Establish/revise change management processes
8. Understand vendor role & capabilities
9. Understand drivers
10. National involvement & advocacy
“Systems awareness and systems design are important for health professionals, but are not enough. They are enabling mechanisms only. It is the ethical dimension of individuals that is essential to a system’s success. Ultimately, the secret of quality is love.”

-Avedis Donabedian
Appendix
How are Chart Abstracted Measures & eCQMs Different?

**Manual Abstracted Measures**
- Abstractor manually reviews patient records
- Human intervention & sometimes interpretation of documentation
- Must strictly follow measure specs, but allows data gathering from free text & multiple places in EHR
- Sampling of eligible patients allowed
- Measure manual released twice a year.

**eCQMs**
- Require the use of e-standards/tools
- Electronic technology are primary sources of data
- Logic not flexible – data sources limited
- Requires steps to assemble data criteria – mapping, adding standard terminologies
- No opportunity to mediate conflicting data
- All payer, all eligible – no sampling
- Measure and value set updates released once a year - requires software upgrades, remapping, re-validating
- Changes to e-HR have significant impact (& can easily “break”) eCQM
What’s Involved in an eCQM Implementation?

Ties to Data Elements

eCQM – Data Element Value Set

“Value Set”: A list of acceptable codes for each data element. The value sets are identified with an OID which is searchable on VSAC (Value Set Authority Center) https://vsac.nlm.nih.gov/#

Vendor Data Schema

Data Criteria (QDM Data Elements)

- "Diagnosis, Active": "Hemorrhagic Stroke" using "Hemorrhagic Stroke Grouping Value Set (2.16.840.1.113883.3.117.1.7.1.212)"
- "Diagnosis, Active": "Ischemic Stroke" using "Ischemic Stroke Grouping Value Set (2.16.840.1.113883.3.117.1.7.1.247)"
- "Encounter, Performed: Emergency Department Visit" using "Emergency Department Visit Grouping Value Set (2.16.840.1.113883.3.117.1.7.1.293)"
- "Encounter, Performed: Non-Elective Inpatient Encounter" using "Non-Elective Inpatient Encounter SNOMEDCT Value Set (2.16.840.1.113883.3.117.1.7.1.424)"
- "Intervention, Order": "Comfort Measures" using "Comfort Measures SNOMEDCT Value Set (1.3.6.1.4.1.33895.1.3.0.45)"
- "Intervention, Performed: Comfort Measures" using "Comfort Measures SNOMEDCT Value Set (1.3.6.1.4.1.33895.1.3.0.45)"
- "Procedure, Performed: Rehabilitation Assessment" using "Rehabilitation Assessment SNOMEDCT Value Set (2.16.840.1.113762.1.4.1045.18)"
- "Procedure, Performed: Rehabilitation Therapy" using "Rehabilitation Therapy SNOMEDCT Value Set (2.16.840.1.113883.3.117.1.7.1.209)"
- "Procedure, Performed: Rehabilitation Education" using "Rehabilitation Education SNOMEDCT Value Set (2.16.840.1.113883.3.117.1.7.1.212)"
- "Attribute: Discharge status: Left Against Medical Advice" using "Left Against Medical Advice SNOMEDCT Value Set (2.16.840.1.113883.3.117.1.7.1.308)"
- "Attribute: "Discharge status: Patient Expired" using "Patient Expired SNOMEDCT Value Set (2.16.840.1.113883.3.117.1.7.1.309)"
- "Attribute: "Discharge status: Discharge To Acute Care Facility" using "Discharge To Acute Care Facility SNOMEDCT Value Set (2.16.840.1.113883.3.117.1.7.1.307)"
- "Attribute: "Discharge status: Discharged to Home for Hospice Care" using "Discharged to Home for Hospice Care SNOMEDCT Value Set (2.16.840.1.113883.3.117.1.7.1.209)"
- "Attribute: "Discharge status: Discharged to Health Care Facility for Hospice Care" using "Discharged to Health Care Facility for Hospice Care SNOMEDCT Value Set (2.16.840.1.113883.3.117.1.7.1.207)"
- "Attribute: Ordinality: Principal" using "Principal SNOMEDCT Value Set (2.16.840.1.113883.3.117.1.7.1.14)"
- "Attribute: "Discharge status: Discharged to Rehabilitation Facility" using "Discharged to Rehabilitation Facility SNOMEDCT Value Set (2.16.840.1.113883.3.117.1.7.1.132)"