Measuring Success: Development and Implementation of Values-Based Performance Measures for Behavioral Health Crisis Services

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Why do we care about performance measures?

The obvious answers:
• Regulatory Compliance (Stay out of trouble)
• Pay for Performance (Get paid)
Why SHOULD we care about performance measures?

Metrics are the incarnation of values.

Metrics help us determine whether we are

• Living up to our core values
• Providing value to our customers and stakeholders
  – People/families receiving care
  – Community partners
  – Payers
  – Regulators
Why SHOULD we care about performance measures?

Measuring performance helps us **improve**.

Common definitions of successful outcomes provide:

- Targets for performance improvement projects
- A way to compare quality across different programs
- Guidance for research studies
- Justification for increasing funding and/or developing new programs

![Diagram showing Continuous Improvement](image)
Broad outcome goals of healthcare

Institute for Health Care Improvement Triple Aim:
1. Improving the patient experience of care (including quality and satisfaction)
2. Improving the health of populations
3. Reducing the per capita cost of health care

Institute of Medicine Six Aims for Improvement:
1. Safe
2. Effective
3. Patient-centered
4. Timely
5. Efficient
6. Equitable
Measure sets in healthcare

- Various payers and accrediting organizations publish standardized measure sets for use in healthcare including
  - CMS: http://hospitalcompare.hhs.gov
  - The Joint Commission Core Measure Sets
    - Hospital-Based Inpatient Psych, Emergency Medicine, etc.
  - NCQA Healthcare Effectiveness Data and Information Set (HEDIS)
  - National Quality Forum
- But none include a set of standardized measures defining desired outcomes specifically for crisis or emergency psychiatric services.
Why is crisis left out?

• There is **no standard definition** of crisis services
  – Free-standing, within a medical ED, or mobile?
  – 23-hour or 72-hour stabilization or longer?
  – Inpatient or outpatient licenses?
  – Locked or unlocked?

• Crisis services **fly under the federal radar**
  – Medicare doesn’t pay for it
  – Crisis services are typically paid for and regulated by state and local behavioral health or Medicaid systems

“If you’ve seen ONE state behavioral health system, you’ve seen ONE state behavioral health system.”
Developing a crisis measure set
(because necessity is the mother of invention)

• We operate 2 similar (but not identical) programs in Phoenix and Tucson.
  – Both are facility-based crisis programs with psych urgent care, 23 hour obs, and short-term inpatient services
  – 23 hr obs receives ~900/month highly acute patients from police, transfers from EDs, and walk-ins
  – Differences included: adults vs. kids, academic medical center, peers, inpatient vs. outpatient license, integrated care
• We also provide consultation to help others develop crisis and emergency psychiatric services.
• So we needed a way to compare outcomes across various programs.
Translating values into metrics

A Critical-To-Quality (CTQ) Tree is a quality improvement tool used to translate values into discrete measures:

- Broadly, what value are you trying to accomplish?
- Then what are the key attributes that make up that value, from the perspective of the customer?
- Then define measures that reflect each attribute.
Values-Based Outcome Metrics
CRISES: Crisis Reliability Indicators Supporting Emergency Services

Excellence in Crisis Services
- Timely
- Safe
- Accessible
- Least Restrictive
- Effective
- Consumer and Family Centered
- Partnership

Metrics go here.

If it won’t change how you behave, it’s a bad metric.
Metrics Primer: Donabedian Model

- **Structure Measures** refer to the environment in which care is delivered – a facility’s organization and resources.
  - “What do you HAVE?”
    - Is there a psychiatrist co-located in a primary health clinic
    - Staff to patient ratios

- **Process Measures** refer to the techniques and processes used to treat patients.
  - “What do you DO?”
    - % patients screened for depression
    - Door to balloon time for Acute MI

- **Outcome Measures** refer to the consequences of the patient’s interaction with the healthcare system
  - “Does it WORK?”
    - Mortality
    - Patient Satisfaction
    - Improvement on depression rating scales
    - Readmissions
Choosing Metrics

• **Meaningful**: Does the measure reflect a process that is clinically important? Is there evidence supporting the measure?

• **Feasible**: Is it possible to collect the data needed to provide the measure? If so, can this be done accurately, quickly, without a need for excessive manual data entry or chart audits?

• **Actionable**: Do the measures provide direction for future quality improvement activities? Are the factors leading to suboptimal performance within the span of control of the organization to address?

Values-Based Performance Metrics
CRISES: Crisis Reliability Indicators Supporting Emergency Services

Excellence in Crisis Services

Timely
- Door to Diagnostic Evaluation
- Left Without Being Seen
- Median Time from ED Arrival to ED Departure for ED Patients: Discharged, Admitted, Transferred
- Admit Decision Time to ED Departure Time for ED Patients: Admitted, Transferred

Safe
- Rate of Self-directed Violence with Moderate or Severe Injury
- Rate of Other-directed Violence with Moderate or Severe Injury
- Incidence of Workplace Violence with Injury

Accessible
- Denied Referrals Rate
- Provisional: Call Quality

Least Restrictive
- % Community Dispositions
- % Conversion to Voluntary Status
- Hours of Physical Restraint Use
- Hours of Seclusion Use
- Rate of Restraint Use

Effective
- Unscheduled Return Visits – Admitted, Not Admitted

Consumer and Family Centered
- Consumer Satisfaction – % Likely to recommend
- Family Involvement - % attempt documented

Partnership
- Law Enforcement Drop-off Interval
- Hours on Divert
- Provisional: Median Time From ED Referral to Acceptance for Transfer
- Post Discharge Continuing Care Plan Transmitted to Next Level of Care Provider Upon Discharge
- Provisional: Post Discharge Continuing Care Plan Transmitted to Primary Care Provider Upon Discharge

Implementation: Quality Scorecard

- Development of a working scorecard took ~1 year due to EHR reporting issues requiring repeated cycles of data validation and staff training.
  - Now this is a contract deliverable for our new EHR vendor
- The scorecard is reviewed at quality and management meetings.
- And it’s a continuous work in progress…
Application:
Targets for Improvement Initiatives

Crisis Clinic: Time from Arrival to Departure

decreased from 7h to 2h 😊
% Hours on Divert

Assaults with Injuries to Staff

Baseline (Apr-Jun)

Phase I

Phase II

Clinic
Obs Unit

Door to Doc

Seclusion/Restraint Rate

Episodes per 1000 patient visits
Applicability to Emergency Departments

- **Psych Team** (MD/APN + SW) to provide care in a large urban Level 1 Trauma Center (~19,000 visits/month)
- Activated by ED Triage RN (like trauma activation)
- *Earlier door-to-doc = reduced dwell time*, comparable to overall ED dwell (red dashed line)

### Psych Emergency Services Discharges

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<th>Month</th>
<th>Total ED Dwell Time (hours)</th>
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- **Discharged from Main ED by Team C**
- **Discharged from PED**
- **All Main ED Discharges (psych+nonpsych)**
Application: Pay for Performance

- Arizona is requiring 2016 Medicaid and behavioral health contracts to incorporate **value-based purchasing**
- Increasing % each year will be based on **pay for performance measures** (up to 50% in 3 years)
- During contract negotiations, we were able to **proactively propose measures** based on our existing CRISES framework
  - Pay for performance
  - Pay for reporting
    (to build infrastructure needed to develop a desired metric)
Future applications?

• The holy grail is **benchmarking** and setting **national standards** for performance targets.

**Phase II Validation Project:**
• Endorsed by the American Association of Emergency Psychiatry
• Assembled consortium of 50+ programs around the world
• Anticipate support from Joint Commission

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"Marvelously zany humor."
— NEWSWEEK
How can we compare different crisis programs to one another?

### Population Characteristics
- **Age**
- **Gender**
- **Race**
- **Ethnicity**
- **Referral Source**: Police, walk-in, child protective custody, etc.
- **Payer**
- **Legal status**: Voluntary, involuntary, assisted outpatient treatment, etc.
- **Housing status**
- **Diagnoses, including Co-occurring substance use disorders**
- **Acute substance intoxication or withdrawal**
- **Trauma history**
- **Chronic medical disease** (e.g. diabetes, congestive heart failure)
- **Primary language**

### Program Characteristics
- **Volume**: Number of encounters annually
- **Age Range Served**
- **Involuntary Referral Rate**: Percentage of visits arriving under involuntary legal status.
- **Level of Care**: Urgent care, emergency services, 23-hour observation, sub-acute crisis stabilization, crisis residential, etc.
- **Locked vs. Unlocked**
- **Hospital setting**: Is the program a freestanding behavioral health facility, a program within a medical ED, other?
- **Community setting**: Urban, rural, etc.?
- **Teaching status**: Does the program serve as a training site for residents and medical students?
Program classifications?

Examples from our colleagues in other fields

- Emergency Department Trauma Center designations: Level 1, etc.
- Specialty centers, e.g. stroke centers
- CMS hospitalcompare.gov stratifies EDs by volume
Thinking Bigger: Creating a Crisis SYSTEM Dashboard

The best dashboard EVER.
Ideal crisis system

- Resolve crisis in the least restrictive setting
  - % mobile team visits resulting in community disposition
  - % 23-hr obs visits resulting in community disposition
  - Crisis facilities % conversion to voluntary
  - Something capturing crisis encounters in the outpatient setting
  - % SWAT calls that are mental health related

- Community safety
  - Suicide rate (CDC data)
  - % law enforcement mental health transports resulting in use of force
  - % law enforcements fatalities with “mental health nexus”
  - % law enforcement calls for welfare check or suicidal.
  - # suicidal barricade calls ($10K each)

- Minimize ED Boarding
  - % jail bookings with mental illness (how do we measure?) and SMI (AZ specific)
  - # jail days for mental health/SMI population (or % total jail days?)
  - # MHST cases worked without a criminal nexus

- Meet needs of complex pts
  - % crisis encounters with a followup phone call within 72 hours
  - % receiving X followup in Y days (need to define parameters, HEDIS?)
  - % Medicaid applications initiated in crisis episode that were completed

- Get people connected
  - Satisfaction (Likelihood to recommend)
  - % high utilizers (need separate meeting to work through this complex issue)

- Consumer & family centered
  - Median time from mobile team dispatch to arrival on scene
  - Crisis facilities Median Door to Qualified Behavioral Health Professional

- Accessible
  - Something assessing language accessibility
  - Rural accessibility: To start look at rural counties outcome measures separately

- Timely
  - Call center measures (pick a subset: abandonment rate, time to answer?)
  - Median time from mobile team dispatch to arrival on scene
  - Crisis facilities Median Door to Qualified Behavioral Health Professional

- Diversion from justice system
  - Median time from admit decision to ED departure for behavioral health admits
  - Total hours of psych boarding in medical EDs
  - Crisis facilities % hours on diversion

A VERY EARLY work in progress with our multiple system partners
Laser focus on a specific problem

SHARKS WITH LASERS

The human race doesn’t stand a chance now.
Best care for Psych patients in the ED

**Timely Psych Assessment**
- Door to Diagnostic Evaluation by a Qualified Behavioral Health Professional
  - Internal or externally contracted
  - % Left Without Being Seen

**Timely Disposition**
- Median Time from ED Arrival to ED Departure for ED BH Patients:
  - Median in minutes: Overall, Discharged, Admitted, Transferred
- PSYCH BOARDING: Admit Decision Time to ED Departure for ED BH Pts
  - Median in minutes: Overall, Discharged, Admitted, Transferred
  - Total hours

**Least Restrictive Level of Care**
- % Discharged to the community
- % Admitted/transferred to a higher level of care
  - Overall, L1, 23 hr obs, detox, etc. NEED TO DEFINE
- % Involuntary admissions
- Conversion to voluntary rate (dropped applications)

**Least Restrictive ED Care**
- Restraint rates:
  - Hrs Physical Restraint Use, Hr Seclusion Use, Rate of Restraint Use

**Safe**
- Patient Safety:
  - Rate of Self-directed Violence with Moderate or Severe Injury
  - Rate of Other-directed Violence with Moderate or Severe Injury
  - Staff Safety: Incidence of Workplace Violence with Injury

**Effective**
- Unscheduled Return Visits within 72 hours
- Sentinel Events (e.g. suicide within 72 hours)

**Accessible**
- % Boarding > 24 hours
  - % Boarders denied admission to higher level of care (and why)
  - % Hours on hospital hold

**Partnership**
- Consumer Satisfaction
- Stakeholder Satisfaction

**Volume Stats:**
- # applications
- # amendments
- # requests for eval
- "Avg daily census"

Maricopa ED Boarding Workgroup: Draft Metrics 4/27/16
Carpe Diem!

We have the TIME-LIMITED opportunity to define our own measures before someone who doesn’t understand our work does it for us.

Let’s not be that guy.

Questions?

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• Metrics Paper: http://tinyurl.com/crisismetrics