Listening Session 1: Best Practices for Measuring Quality and Outcomes Related to Caring for Patients with Complex Chronic Conditions or Serious Illnesses in PB-TCOC Models

Presenters:

Subject Matter Experts

- **Brynn Bowman, MPA** – Chief Executive Officer, Center to Advance Palliative Care
- **Paul Mulhausen, MD, MHS** – Chief Medical Director, Iowa Total Care, a Centene health plan
- **Caroline Blaum, MD, MS** – Assistant Vice President, National Committee for Quality Assurance
- **David Kendrick, MD, MPH** – Chief Executive Officer, MyHealth Access Network
Listening Session 1: Best Practices for Measuring Quality and Outcomes Related to Caring for Patients with Complex Chronic Conditions or Serious Illnesses in PB-TCOC Models

Brynn Bowman, MPA
Chief Executive Officer, Center to Advance Palliative Care
Measuring Quality of Care for Patients During the Last Year of Life

Brynn Bowman
Chief Executive Officer
Center to Advance Palliative Care
June 10, 2024
Defining the population

"Serious illness" is a health condition that carries a high risk of mortality AND either:

- Negatively impacts a person's daily function or quality of life

  OR

- Excessively strains their caregivers

Serious Illness, Utilization Patterns, and Health Care Costs

- Last 12 months of life (49%)
- Short term high cost* (11%)
- Persistent high cost (40%)

*Short term high cost defined as “a discrete high-cost event in one year but who return to normal health and lower costs”

Source: Institute of Medicine, *Dying in America*, 2015
Palliative Care Improves Value

<table>
<thead>
<tr>
<th>Hospital Palliative Care</th>
<th>Home-Based Palliative Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Improves patient &amp; family satisfaction</td>
<td>• Saves up to $12k per enrollee to plans and ACOs</td>
</tr>
<tr>
<td>• Reduces readmissions, ICU utilization, length of stay, cost per day</td>
<td>• Reduces ED visits, admissions, readmissions, and hospital LOS</td>
</tr>
</tbody>
</table>

What can we learn from this about what is important to measure?

Sources: https://www.capc.org/the-case-for-palliative-care/
Palliative Care: Reducing Suffering, Reducing Costs

“Beneficial at any stage of a serious illness, palliative care is an interdisciplinary care delivery system designed to anticipate, prevent, and manage physical, psychological, social, and spiritual suffering to optimize quality of life for patients, their families and caregivers. Palliative care can be delivered in any care setting through the collaboration of many types of care providers. Through early integration into the care plan of seriously ill people, palliative care improves quality of life for both the patient and the family.”

(National Consensus Project for Quality Palliative Care, 4th edition, 2018)
Quality Measurement Considerations for Patients with Serious Illness or Complex Chronic Conditions

→ We do not prognosticate accurately – and the majority of high-cost patients are not at the end of life

→ Need QMs applied across the trajectory of an illness

→ Few validated measures for this population
Recommended Quality Measures

“Feeling Heard & Understood” and “Experience of Receiving Desired Help for Pain”

- Developed by the American Academy of Hospice and Palliative Medicine and RAND, validated in outpatient palliative care population
- Patient-reported outcome performance measures (PRO-PMs)
- Endorsed by the National Quality Forum in 2021
- Not yet implemented in Medicare programs

https://www.qualityforum.org/
Targeting Quality Measures at Existing Disparities

- Black patients and caregivers report poor-quality clinician relationships and communication

- Black and Hispanic patients receive poorer-quality pain management than White patients


www.capc.org/health-care-for-black-patients-with-serious-illness-a-literature-review
Applying Hospice CAHPS Quality Measures to a Broader Population

Rationale

Validated measures that speak to the quality of communication, coordination/timeliness of care are important for a patient population that experiences crises and exacerbations.

Items

- How often did you get the help you needed from the [hospice] team during evenings, weekends, or holidays?
- Did the [hospice] team give the training needed about [symptom management]?

ACO REACH QMs:
- Claims-based measures
- Risk-standardized, all-condition readmission
- All-cause unplanned admissions for patients with MCCs
- Days at home for complex, chronic patients (high needs ACOs)
- Timely follow-up after acute exacerbations (standard/new ACOs)
- CAHPS survey

ACO REACH CAHPS domains:
- Getting timely care
- Communication
- Shared decision-making
- How the patient rates the provider
- Care coordination
- Courteous/helpful office staff
- Health promotion and education
- Stewardship of beneficiary resources
- Access to specialists
- Activities of daily living

Need to apply quality measures specific to the population with complex chronic conditions or serious illness.

Limitations of Claims-Based Measures: A Key Challenge for this Population

Cannot capture major drivers of utilization:
→ Food/housing insecurity
→ Cognitive impairment
→ Ill-equipped caregiver
→ Unsafe home
→ Health education needs

To know whether these needs are being identified and addressed, we have to ask – it’s worth the cost.
Listening Session 1: Best Practices for Measuring Quality and Outcomes Related to Caring for Patients with Complex Chronic Conditions or Serious Illnesses in PB-TCOC Models

Paul Mulhausen, MD, MHS
Chief Medical Director, Iowa Total Care, a Centene health plan
Patient Reported Outcomes: Opportunities for Complex Populations

Paul Mulhausen, MD, MHS, FACP, AGSF
Chief Medical Officer
Iowa Total Care
June 10, 2024
Disclosure

I am a medical director for a health plan in Iowa. I am speaking as a geriatrician and my views should not be construed as the formal position of my employer.
Why Patient Reported Outcomes?

• They amplify the voice of the patient in the assessment of value.

• They help stakeholders move beyond process measures.

• They promote patient-centeredness in care and performance measurement.
The Language of Patient-Reported Outcome

- **Patient Reported Outcomes**: an outcome reported by the patient.
  - “I feel depressed.”

- **Patient Reported Outcome Measure (PROM)**: a method by which the reported outcome can be collected into a single-item measure.
  - “Scores 13 on the Patient Health Questionnaire – 9 (PHQ-9)”

- **Patient Reported Outcome – Performance Measure (PRO-PM)**: an aggregate of the patient information into a valid and reliable measurement of performance.
  - “Percent of patients with major depression disorder and PHQ-9 score > 9 scoring < 5 after six months of treatment. “ (NQF 0711)
The Language of Population Complexity: The Five Ms

• **Multicomplexity**: multiple conditions, multiple providers, multiple locations of service, multiple caregivers, multiple medications.

• **Mobility**: maintaining balance, ability to walk, and avoid falls.

• **Medications**: adverse drug effects are amplified and drug interactions compound multicomplexity.

• **Mind**: maintaining mental activity, manage cognitive loss, managing mood disorders.

• **Matters Most**: person-centered goals of care; treatment plans that reflect goals of care.
Domains of Patient Reported Outcomes

- Health-Related Quality of Life
- Functional Status
- Symptoms and Symptom Burden
- Health Behaviors
- Motivation and Activation
- Patient Experience and Satisfaction (PREMs)
Inventory of PRO-PMs

- HealthMeasures: 615 Measures in English Language
- NQF: 52 Measures (30 endorsed by NQF)
- CMS Measures Inventory Tool (CMIT): 57 Measures (23 CBE Endorsed)
- Public Access FOTO measures (MIPS participants): 11
- Partnership for Quality Measurement: 56 Measures (31 CBE Endorsed)
PRO-PMs Opportunities in Total Cost of Care

• Reliable and Valid PRO-PMs that cut across Domains and Conditions may promote accountability in Total Cost of Care payment models.

• Cross-Cutting PRO-PMs may address both quality and accountability needs in complex populations with serious illness.

• PRO-PMs that capture the performance of care coordination across comorbid disease states and providers may be uniquely valuable.

• Total Cost of Care Model demonstrations create opportunities for measure development and translational research that ensures reliability, validity, acceptance, feasibility, and alignment across payers.
Barriers to PROM in Complex Populations

- Most PRO-PMs remain disease and episode specific
- Repeated Assessment for long term conditions
- Heterogeneity of measurement
  - Data source: patient vs. proxy
  - Mode of Collection: self-administration, survey
  - Method of Collection: paper and pencil, phone, digital platform
- Heterogeneity of engagement
  - Sensory changes
  - Cognitive loss
  - Health Literacy and Digital Dexterity
  - Disease Burden
Summary

• PRO-PMs present a high value opportunity to bring the voice of the patient into the accountability and the quality needs of Total Cost of Care payment models.

• Most PRO-PMs are disease based or based on episodes of care and may not be valid or reliable performance measures in medically complex populations.

• Opportunities exist for measure developers and payers to develop cross-cutting PRO-PMs that more effectively meet the accountability and quality improvement needs of seriously ill, medically-complex populations.
Listening Session 1: Best Practices for Measuring Quality and Outcomes Related to Caring for Patients with Complex Chronic Conditions or Serious Illnesses in PB-TCOC Models

Caroline Blaum, MD, MS
Assistant Vice President
National Committee for Quality Assurance
Developing and Standardizing Health Equity Measures for Patients with Complex Chronic Conditions or Serious Illness

Caroline Blaum, MD, MS
Assistant Vice President
National Committee for Quality Assurance (NCQA)
June 10, 2024
Agenda

CURRENT STATE: MEASURES IN USE
NCQA APPROACH
FUTURE MEASURES
USE CASE: PERSON-CENTERED OUTCOME MEASURES
BEST PRACTICES

Dr. Blaum has no disclosures.
Complex patients experience fragmented care that is often burdensome, expensive, inequitable and even dangerous.
Care for seniors with complex health status is not based on evidence

• Major trials are disease specific and evaluate disease specific outcomes
  o People with multimorbidity, disability, or frailty are not usually in trials
  o Trials have minimal information on adverse events
  o Some areas (BH$^1$, SUD$^2$) are poorly covered

• Need new and different evidence
  o Treatment effects on common goals (function, symptoms, survival) for persons with multimorbidity/frailty or serious illness

• Need to consider trade-offs, uncertainty, trajectory and complexity

• Need to infuse Equity throughout, using community engagement and best practices

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$^1$ BH – Behavioral Health  
$^2$ SUD – Substance Use Disorder
In order to provide quality care for complex patients, we need to keep three perspectives in mind – 1) Person, 2) Provider, 3) Payer

Current Measures:
- Often **not relevant** for or exclude complex patients
- Sometimes cover important activities but can feel like “box checking”
- Don’t clearly foster integration of personal and medical care

Future measures need to...
- Address **equity** and “what matters most” to the person
- **Improve communication** between providers and with people and their families
- **Can be flexible and usable in many clinical settings** with different people and different clinician types, improving care integration
# Populations with chronic conditions and/or serious illness

*Measure Types: How does equity fit in?*

<table>
<thead>
<tr>
<th>Patient Populations</th>
<th>Process/Structure Measures</th>
<th>Outcome Measures:</th>
</tr>
</thead>
</table>
| • Multiple chronic conditions  
• Frail  
• Behavioral Health  
• Substance Use Disorder  
• Disabled  
• SOGI\(^3\)  
• Socioeconomic challenges  
• End of Life | • Population Health – immunizations/screening  
• Structural/Operational  
• Effectiveness of Care  
• Patient Safety  
• Behavioral Health  
• Substance Use  
• Care Coordination  
• Social Needs  
• Social Connection | • Intermediate outcomes  
• Utilization – risk adjusted  
• Patient reported information  
• Patient reported outcomes  
• Patient engagement  
• Patient experience  
• Patient goal achievement  
• Burden – patient/ caregiver |

\(^3\)SOGI – Sexual Orientation and Gender Identity
Quality Care is Equitable Care

NCQA Approach

Existing measures

• Stratification by race, ethnicity and sociodemographic
• Inclusion of sexual orientation and gender identity (SOGI) – for relevant measures

New measures: Patient generated information, incorporating the patient voice

• Social Needs Screening; Social connection
• Patient experience; Patient-reported outcome
• Patient goals → Current care planning and advance care planning

Patient partners and patient/care partner engagement throughout measure development

Community engagement – lived experience and experts

Learning communities and collaboratives
**Race & Ethnicity Stratification – Goals**

**Overall goal of this work:**

*Bring transparency* to inequities in health care quality by *race and ethnicity* and *incentivize equity* with benchmarks and performance scoring.

**What has been done so far:**

- 22 HEDIS measures stratified

- Learning Network with health plans on collection and reporting of race and ethnicity data and sources to access those data
**Quantitative**

Plans submitted population-level HEDIS data on measures stratified by R/E in MY2022

- First look at performance in real-world settings.
- Evaluate what patterns we might expect, inform questions we ask in first year analysis and in future maintenance.

*11 plans submitted data

**Qualitative**

Plans interviewed with NCQA Equity in HEDIS Team to share insights

- Gain an understanding of how plans are integrating the stratification into their work.
- Learn about challenges and successes with the data, and how different organizations use it to inform quality improvement efforts.

*13 plans participated in interviews
Social Need Screening and Intervention (SNS-E)

Measure Specification

Measure Description
The percentage of members who, during the measurement period, were screened at least once for unmet food, housing and transportation needs using a pre-specified screening instrument and, if screened positive, received a corresponding intervention.

Product Lines
Commercial, Medicaid, Medicare

Data Source
Electronic Clinical Data Systems

Exclusions
Hospice
I-SNP
LTI

Age Stratification
- ≤17
- 18-64
- 65+

4 I-SNP – Institutional Special Needs Plan
5 LTI – Long Term Institutional
Social Connection

Evidence emerging

Social Connection
An umbrella term that encompasses the structural, functional, and quality aspects of how individuals connect to each other

- **Social Isolation**
  Objectively being alone, having few relationships, or infrequent social contact

- **Loneliness**
  The discrepancy between one's desired level of connection and one's actual level

- **Inadequate Social Support**
  The actual or perceived availability of resources (e.g., informational, tangible, emotional) from others

Measure will capture social connection screening and interventions for initial population.
What matters most?
Promoting health equity through measuring what matters most
Organizing a healthcare system around what matters to people, their families and their community

• For **individuals with complex care needs**, care should align with what matters to them, their health outcome goals

• **Measurement can be used to drive care that matters** and encourage clinicians to deliver care aligned with health outcome goals

• For quality measures, health outcome **goals must be measured and tracked in a standardized way**
## Person-Centered Outcomes (PCO) Measures

<table>
<thead>
<tr>
<th><strong>Initial Population</strong></th>
<th><strong>Exclusions</strong></th>
<th><strong>Reporting Method</strong></th>
<th><strong>Data Source</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Individuals 18+ years of age with a complex care need</td>
<td>Hospice</td>
<td>Electronic Clinical Data Systems (ECDS)</td>
<td>Administrative claims, EHR, case management, HIE</td>
</tr>
<tr>
<td><strong>Measure Description</strong></td>
<td>Hospice</td>
<td>Long Term Care (institutional) Died during measurement year</td>
<td></td>
</tr>
<tr>
<td><strong>Measure 1 - Goal Identification:</strong> % of individuals 18 years of age and older with a complex care need who had a PCO goal identified resulting in completion of goal attainment scaling (GAS) or a Patient-Reported Outcome Measure (PROM) and development of an action plan.</td>
<td>Hospice</td>
<td>Long Term Care (institutional) Died during measurement year</td>
<td></td>
</tr>
<tr>
<td><strong>Measure 2 - Goal Follow-up:</strong> % of individuals 18 years of age or older with a complex care need who received follow-up on their PCO goal within two weeks to six months of when the PCO goal and GAS or PROM were identified.</td>
<td>Hospice</td>
<td>Long Term Care (institutional) Died during measurement year</td>
<td></td>
</tr>
<tr>
<td><strong>Measure 3 - Goal Achievement:</strong> % of individuals 18 years of age or older with a complex care need who achieved their PCO goal within two weeks to six months of when the PCO goal and GAS or PROM were identified.</td>
<td>Hospice</td>
<td>Long Term Care (institutional) Died during measurement year</td>
<td></td>
</tr>
</tbody>
</table>

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## 2021 – 2024 Testing Efforts

**Funded by The John A. Hartford Foundation and The SCAN Foundation**

### 2018-2020 Testing

<table>
<thead>
<tr>
<th>Site Descriptions</th>
<th>1300+ Individuals</th>
<th>100+ Clinicians</th>
<th>13 Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicaid Case Management</td>
<td></td>
<td></td>
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<tr>
<td>Traditional Case Management</td>
<td></td>
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<tr>
<td>Geriatric and Serious Illness Programs</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Clinician Types:** RN, NP, SW, MD, Peer Navigator, Care Manager

**Location:** California, Kansas, Maryland, Michigan, New York, North Carolina, Ohio, Oregon, Texas, Washington, Wisconsin

### 2021-2024 Testing

<table>
<thead>
<tr>
<th>Site Descriptions</th>
<th>5000+ Individuals</th>
<th>180+ Clinicians</th>
<th>17 Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area Agencies on Aging</td>
<td></td>
<td></td>
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<tr>
<td>Care Coordination Organization</td>
<td></td>
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<tr>
<td>Certified Community Behavioral Health Clinics</td>
<td></td>
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<tr>
<td>Home Based Primary Care</td>
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</tr>
</tbody>
</table>

**Clinician Types:** RN, NP, SW, MD, Community Health Worker, Peer Navigator, Care Manager, Qualified Mental Health Professional, Counselors, Licensed Therapists

**Location:** Arizona, California, New Jersey, Ohio, Tennessee, Texas

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Person-Centered Outcome Measures & Health Equity

High-quality care is equitable care.

Investigate:

• Analysis of measure data included comparison of race, ethnicity, preferred language, social needs, and payer.
• This helped NCQA understand how these measures impact different populations and if these measures would benefit from measure stratification.

Identify:

• Specific efforts were made during learning collaborative recruitment to engage organizations serving diverse populations. NCQA provided coordinated technical assistance and resources that addressed measurement, clinical workflow and clinical decision-making in diverse populations.
• To ensure patient-facing materials resonate with diverse populations, measure resources are available in 7 languages (Arabic, Chinese – Simplified and Traditional, English, Russian, Spanish, and Vietnamese) and Patient Partners reviewed all materials (including goal inventories) for clarity, direction, and appropriateness for use with patients and care partners.

Elevate:

• NCQA developed and disseminated messages about the measures using information, data and stories that resonate with, and demonstrate value for, diverse populations and viewpoints.
• Patient partners and expert panels that included people with lived experience and community partners as well as experts and other stakeholders were involved at all stages of measure development and testing.
What we’ve learned from testing

Qualitative Results

- Improves Communication
- Raises Clinician Awareness
- Builds Trust

Quantitative Results

For a sub-group, we found 6-months post-intervention:

- Significant decrease in hospitalizations
- Non-significant decrease in ED use
- Improved patient experiences concerning care planning and patient activation

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Consider all areas of social demographic risk and location to better target inequities

Race/Ethnicity stratification is important but only a component

Link equity to whole person / person-centered care, and identify barriers to health and quality of life

Take perspectives not just from the healthcare industry but also our patients, families and communities

Think deeply about our process of measurement
- Do no harm and remove privilege from the process
- Have people at the focus of our work and not payment
## Portfolio of Stratified Measures: Measurement Year 2024

<table>
<thead>
<tr>
<th>Domain</th>
<th>Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevention and Screening</td>
<td>Prenatal Immunization Status</td>
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<tr>
<td></td>
<td>Childhood Immunization Status</td>
</tr>
<tr>
<td></td>
<td>Immunizations for Adolescents</td>
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<tr>
<td></td>
<td>Adult Immunization Status</td>
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<tr>
<td></td>
<td>Breast Cancer Screening</td>
</tr>
<tr>
<td></td>
<td>Cervical Cancer Screening</td>
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<tr>
<td></td>
<td>Colorectal Cancer Screening</td>
</tr>
<tr>
<td>Behavioral Health</td>
<td>Initiation and Engagement of Substance Use Disorder Treatment</td>
</tr>
<tr>
<td></td>
<td>Follow-Up After Hospitalization for Mental Illness</td>
</tr>
<tr>
<td></td>
<td>Follow-Up After Emergency Department Visit for Mental Illness</td>
</tr>
<tr>
<td></td>
<td>Follow-Up After Emergency Department Visit for Substance Use</td>
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<tr>
<td></td>
<td>Pharmacotherapy for Opioid Use Disorder</td>
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<tr>
<td></td>
<td>Prenatal Depression Screening and Follow-Up</td>
</tr>
<tr>
<td></td>
<td>Postpartum Depression Screening and Follow-Up</td>
</tr>
<tr>
<td>Chronic Conditions</td>
<td>Asthma Medication Ratio</td>
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<td></td>
<td>Controlling High Blood Pressure</td>
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<td></td>
<td>Glycemic Status Assessment for Patients With Diabetes</td>
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<td></td>
<td>Eye Exam for Patients With Diabetes</td>
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<td></td>
<td>Kidney Health Evaluation for Patients With Diabetes</td>
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<tr>
<td>Perinatal and Well Visits</td>
<td>Prenatal and Postpartum Care</td>
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<td></td>
<td>Child and Adolescent Well Care Visits</td>
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<td></td>
<td>Well-Child Visits in the First 30 Months of Life</td>
</tr>
</tbody>
</table>
## Geriatric Measures: Overview

### Measures for people with complex health status. Varying sophistication

<table>
<thead>
<tr>
<th>SNPs and What Matters</th>
<th>Medications</th>
<th>Mentation</th>
<th>Health Outcomes Survey</th>
<th>Outcomes / Utilization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Care of the Aged (COA)</td>
<td>Use of high-risk medications in the elderly</td>
<td>Screening for depression and follow-up</td>
<td>Fall risk management</td>
<td></td>
</tr>
<tr>
<td>Advance Care Planning (ACP)</td>
<td>Potentially harmful drug-disease interactions in older adults</td>
<td>Depression remission at 12 months</td>
<td>Physical activity in older adults</td>
<td></td>
</tr>
<tr>
<td>Person Centered Outcome Measures (PCO Measures)</td>
<td>Medication reconciliation post discharge</td>
<td>Follow-up after ED visit for mental illness</td>
<td>Urinary incontinence</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hypoglycemia leading to ED visit</td>
<td>Use of PHQ-9 to monitor depression symptoms</td>
<td>Improving or maintaining mental health</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Deprescribing of benzodiazepines in older adults</td>
<td></td>
<td>Improving or maintaining physical health</td>
<td></td>
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<td></td>
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<td>All-cause readmissions</td>
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<td>Hospitalization after discharge from SNF</td>
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<td></td>
<td></td>
<td>Follow-up after ED visit for multiple chronic conditions</td>
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<td></td>
<td>Transitions of care</td>
</tr>
</tbody>
</table>
Person-Centered Outcomes Approach

Measuring what individuals say matters most to them

- Identify what matters
- Document and track PCO goal
- Create plan to achieve PCO goal
- Reassess PCO goal
- Document achievement of PCO goal

MEASURE 1
- Patient-Reported Outcome Measure (PROM)

MEASURE 2
- Goal Attainment Scaling (GAS)
Goal Attainment Scaling

Example: 82-year-old person with mobility problem, depression, history of arthritis and heart failure

<table>
<thead>
<tr>
<th>Goal: Walk her dog outside once a week for the next 2 months.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Worse (-2)</strong></td>
</tr>
<tr>
<td>Unable to let the dog outside.</td>
</tr>
</tbody>
</table>

What could be worse | Current State | Where they want to be |
### Patient-Reported Outcome Measures (PROMs)

*Selecting the best PROM to fit the goal*

<table>
<thead>
<tr>
<th>Participant Goal</th>
<th>PROM Selected to Measure Progress</th>
<th>Reason PROM Chosen</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Match PROM to goal topic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Walk around the block 2 times per week</td>
<td>PROMIS Physical Function</td>
<td>PROM related to goal</td>
</tr>
<tr>
<td>Take medication regularly</td>
<td>PROMIS Self-Efficacy to Manage Medications/Treatment</td>
<td>Individual does not take daily medications regularly causing health condition to worsen</td>
</tr>
<tr>
<td><strong>Match PROM to barrier</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Go out with friends 2 times per month</td>
<td>GAD-7</td>
<td>Individual has anxiety which is causing them to stay home</td>
</tr>
<tr>
<td>Be able to live at home</td>
<td>PROMIS Self-Efficacy to Manage Daily Symptoms</td>
<td>Individual has difficulty managing everyday activities</td>
</tr>
<tr>
<td>Apply to 5 jobs in the next 2 months.</td>
<td>PHQ-9</td>
<td>Individual is depressed, which has stopped them from looking for a job</td>
</tr>
</tbody>
</table>
Learning Collaborative Demographic Data

Primary Care/Long-Term Services and Supports (LTSS)
N=2,651

- Average Age = 65 years old
- Majority female (68.3%)
- Majority of individuals either had Medicaid (50.7%) or were Dual Eligible (35.1%)
- 49.8% of individuals were Black or another minority with 45.5% being White
- 88% were not Hispanic, with 72.6% noting English as their preferred language
- Majority of individuals did not identify a social determinant of health need

Behavioral Health – Certified Community Behavioral Health Clinics
N=5,872

- Average Age = 41 years old
- Majority female (52.4%)
- Majority of individuals were either uninsured (39.9%) or had Medicaid (34.9%)
- 65.7% individuals who participated were White
- 39.9% were Hispanic, with 91% noting English as their preferred language
- Majority of individuals did not identify a social determinant of health need
### PCO Measure Performance

#### Primary Care/LTSS (N=5 sites)

<table>
<thead>
<tr>
<th>Measure</th>
<th>Mean</th>
<th>Min</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure 1</td>
<td>51.8%</td>
<td>18.1%</td>
<td>40.1%</td>
</tr>
<tr>
<td>Measure 2</td>
<td>31.0%</td>
<td>11.8%</td>
<td>20.0%</td>
</tr>
<tr>
<td>Measure 3</td>
<td>13.9%</td>
<td>4.6%</td>
<td>9.7%</td>
</tr>
</tbody>
</table>

#### Behavioral Health (N=8 sites)

<table>
<thead>
<tr>
<th>Measure</th>
<th>Mean</th>
<th>Min</th>
<th>Median</th>
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<tr>
<td>Measure 1</td>
<td>76.1%</td>
<td>6.9%</td>
<td>99.9%</td>
</tr>
<tr>
<td>Measure 2</td>
<td>13.2%</td>
<td>0.0%</td>
<td>9.7%</td>
</tr>
<tr>
<td>Measure 3</td>
<td>4.2%</td>
<td>0.0%</td>
<td>1.9%</td>
</tr>
</tbody>
</table>

# Measures Explained

**Measure 1: Goal Identification**
- **Goal**: Identification

**Measure 2: Goal Follow-up**
- **Goal**: Follow-up

**Measure 3: Goal Achievement**
- **Goal**: Achievement

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## Measure Performance Stratification

### Race, Ethnicity and Preferred Language

<table>
<thead>
<tr>
<th>Race</th>
<th>n</th>
<th>Measure 1</th>
<th>Measure 2</th>
<th>Measure 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>1205</td>
<td>64.8%</td>
<td>40.3%</td>
<td>23.9%</td>
</tr>
<tr>
<td>Black or African American</td>
<td>757</td>
<td>57.1%</td>
<td>29.7%</td>
<td>17.8%</td>
</tr>
<tr>
<td>Asian</td>
<td>331</td>
<td>29.6%</td>
<td>14.0%</td>
<td>8.4%</td>
</tr>
<tr>
<td>American Indian or Alaska Native</td>
<td>0</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Native Hawaiian or Other Pacific Islander</td>
<td>0</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Some Other Race</td>
<td>171</td>
<td>37.3%</td>
<td>17.3%</td>
<td>8%</td>
</tr>
<tr>
<td>Two or More Races</td>
<td>61</td>
<td>23.1%</td>
<td>11.5%</td>
<td>1.9%</td>
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</table>

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>n</th>
<th>Measure 1</th>
<th>Measure 2</th>
<th>Measure 3</th>
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</thead>
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<tr>
<td>Hispanic or Latino</td>
<td>216</td>
<td>27.4%</td>
<td>16.1%</td>
<td>5.6%</td>
</tr>
<tr>
<td>Not Hispanic or Latino</td>
<td>2338</td>
<td>55.6%</td>
<td>31.4%</td>
<td>18.1%</td>
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<table>
<thead>
<tr>
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<tr>
<td>English</td>
<td>1925</td>
<td>65.6%</td>
<td>37.2%</td>
<td>19.8%</td>
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<tr>
<td>Spanish</td>
<td>107</td>
<td>31.3%</td>
<td>17.9%</td>
<td>10.4%</td>
</tr>
<tr>
<td>Other</td>
<td>530</td>
<td>34.5%</td>
<td>19.3%</td>
<td>14.0%</td>
</tr>
</tbody>
</table>
Listening Session 1: Best Practices for Measuring Quality and Outcomes Related to Caring for Patients with Complex Chronic Conditions or Serious Illnesses in PB-TCOC Models

David Kendrick, MD, MPH
Chief Executive Officer, MyHealth Access Network
Quality and Outcomes Achievement in Complex Conditions and Serious Illness

Technology, Data, and Continuous Improvement

David C. Kendrick, MD, MPH
Disclosures

David C. Kendrick, MD, MPH

• CEO, MyHealth Access Network
  – Oklahoma’s Statewide Health Information Exchange
• Chair, Department of Informatics, OU School of Community Medicine
• Assistant Provost for Strategic Planning, OU Health Sciences Center
• Founder of MedUnison, LLC and developer of Doc2Doc
• Immediate Past Chair, Board of National Committee for Quality Assurance
• Board, CIVITAS Networks for Health
• Board, Patient Centered Data Home, nationwide interoperability model
### Experience with CMMI Models

<table>
<thead>
<tr>
<th>Model</th>
<th>Roles</th>
<th>Timing</th>
</tr>
</thead>
</table>
| Comprehensive Primary Care Initiative (CPC Classic) | • Convener  
• National Faculty  
• Data Aggregator | 2012-2016 |
| CPC+                                          | • Data Aggregator  
• National Faculty  
• Convener         | 2017-2021 |
| Accountable Health Communities               | • Principle Investigator  
• Bridging Organization | 2016-2022 |
| Primary Care First                            | • Event Alerting  
• Proposed:  
  • Data Aggregator  
  • Social Determinants of Health Screening  
  • Convener | 2022-?    |
Agenda

1. Is standardized patient data needed for multiple providers caring for patients with complex chronic conditions or serious illnesses in PB-TCOC models? If so, how?

2. Are there current examples of the collection and use of standardized patient assessment data and performance measures (e.g., post-acute care settings, other) for this patient population?

3. What strategies can be taken to improve the technology used to collect data from this patient population, the timeliness of data collection, and the sharing of resulting data with providers?
1. Is standardized patient data needed for multiple providers caring for patients with complex chronic conditions or serious illnesses in PB-TCOC models? If so, how?

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Claims Data
Claimed diagnoses, procedures, medications
Patient Out of Pocket
EHR 1
EHR 2
EHR 3
EHR 4
EHR 5
EHR 6
EHR 7
EHR 8
EHR 9
EHR 10
Independent Pharmacies
Public Health Department
SureScripts
Federal Source (VA/DoD/IHS)
Medicare
Commercial
Claims: Medicaid
Claims: Commercial 1
Claims: Commercial 2
Claims: Commercial 3
Claims: Commercial 4
Claims: Commercial
Patient A
Patient C
Patient D
Patient B

8
Corroborated:
Average PCP must coordinate care with 225 other providers in 117 other organizations

Pham, HH, NEJM 2007; 356: 1130-1139
Number of Data Sources by Age Grouping

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Average Sources/Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4</td>
<td>3.14</td>
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<tr>
<td>5-17</td>
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<td>18-35</td>
<td>3.49</td>
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<td>36-64</td>
<td>2.83</td>
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<tr>
<td>60-64</td>
<td>4.13</td>
</tr>
<tr>
<td>65-85</td>
<td>4.14</td>
</tr>
</tbody>
</table>
>2200 locations serving >130,000 patients daily

Oklahoma Non-Profit, 501c3
Established in 2009:
more than . .
• 5M individuals with
• 12 years of clinical history
• 12 years of claims data
• 6 years of SDoH data
Health Data Utility: Rich Clinical, Claims, SDoH Data

- Diagnoses
- Medications
- Allergies
- Vital signs
- Clinical documents
  - H&P
  - D/C summary
  - Operative/Procedure notes
  - Progress notes
  - POLST/MOLST
  - Advanced Directives/Power of Attorneys for Health Care
- Labs/Observations/Assessments
- Insurance
- Dispensed Medications
- Equipment Devices
- Related Persons
- Social History
- Family History
- Radiology
- Care Team
- Goals of treatment
MyHealth Provider Portal + FHIR API

### Patient Charts

**Patient:** Wolf, Jess D. (M, 88)
**DOB:** 05/07/1932
**Address:** 94 Trudy Ave., Oklahoma City, OK 73109, USA

#### Summary

**Encounter Type:** Inpatient
**Admit - Discharge Dates:** 07/19/2018 13:19 - 08/07/2018 18:57

**Medical Conditions:**
- Dementia
- UTI (urinary tract infection)

**Problems/Condition:**
- Chronic Disease

**Medications:**
- ampicillin 500 mg in sodium chloride 0.9% 100 mL IPB
- Hydrocortisone-Aminophylline 7.5-129.75 mg/315 mL IV Soln
- Magnesium Sulfate 2 gm/50 ml IV Soln
- Pantoprazole Sodium 40 mg Fr Sol
- ampicillin (IM/IVH) 500 mg in sodium chloride (NS) 0.9% 100 mL IPB
- Docusate Sodium 50 mg/ml Fr Soln
- Potassium Chloride 20 Meq/315 mL (10%) PO Soln
- Insulin Aspart 100 Unit/ml SC Soln
- Insulin Aspart 100 Unit/ml SC Soln
- desmo 50 % Injection 5 ml
- Vancomycin HCl in Dextrose 1.5 gm/200ml IV W/ Soln
- ceftriaxone (Fortaz) 500 mg in sodium chloride (NS) 0.9% 50 mL IPB
- Vancomycin 1250 mg in 250 ml NS Repackaging Formula
- Hydrocortisone-Aminophylline 7.5-129.75 mg/315 mL IV Soln
- Vancomycin HCl in Dextrose 1.5 gm/200ml IV W/ Soln
- Metoprolol Tartrate 25 mg PO Tabs
- Docusate Sodium 100 Mg Fr Caps
- Piperacillin-Tazobactam in Dm 40-0.5 gm/200 ml IV Fr Soln
- Sodium Chloride 0.9% Fr Soln
- Pantoprazole Sodium 40 mg Fr Soln

### Labs (last 5 panels)

<table>
<thead>
<tr>
<th>Panel</th>
<th>Test</th>
<th>Value</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gluc</td>
<td>Blood</td>
<td>171</td>
<td>Normal</td>
</tr>
<tr>
<td>EID</td>
<td>Gluc Blood</td>
<td>06449</td>
<td>Normal</td>
</tr>
<tr>
<td>CBC</td>
<td>WBC</td>
<td>7900</td>
<td>Normal</td>
</tr>
<tr>
<td>BNP</td>
<td>Mg</td>
<td>0.87</td>
<td>Normal</td>
</tr>
</tbody>
</table>

**CBC**
The following orders were created for panel order CBC:
- Abnormality: Status: ------
- Procedure: ------
- CBC with Differential: ------
- Abnormal Final result: Please view results for these tests on the individual orders.

**BMP**
- Abnormal
  - GFR, non-African American: >60
  - GFR_African American: >60

---

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Health Data Utility vs. Health Information Exchange

HDU is more than a Health Information Exchange

• **Like an HIE:**
  - Governance with transparency, broad participation of stakeholders
  - Trust of stakeholders
  - Committed service to a specific geography (i.e. state or region)
  - Substantial if not 100% connectivity of health data within service area
  - Cleaning and organization of individual identities and data for secondary uses

• **A Health Data Utility that is more than an HIE:**
  - Like other utilities (electric, water, etc.), only 1 is needed, and provides infrastructure for all community needs
  - Use cases can be implemented within the HDU or through a range of partnerships
  - Integrate data from sources beyond healthcare (social services, education, crime, etc.)
  - Work with stakeholders beyond healthcare (state agencies, tribal governments, employers, policy-makers, homeless shelters, correctional systems, etc.)
Four Problems HDUs Solve

The Health Data Utility (HDU) is a public-private resource providing a source of robust clinical and non-clinical data.

1. The cost of U.S. health care continues to increase.
   Health care spending hit almost 20% of total GDP in 2020. That’s up from 5% of total U.S. GDP in 1980.

2. The quality of U.S. health care must improve.
   Two results of improved health care quality are an increase in the proportion of adults who get recommended, evidence-based preventive health care and a reduction in the proportion of emergency department visits.
   Source: Healthy People 2020.

3. The patient experience must improve.
   Patients are continually surveyed about their experiences in the health care system; a poor experience can impact their health care provider’s reimbursement.

4. The U.S. must prepare to respond to infectious disease outbreaks.
   Evolving risk factors associated with external drivers such as globalization, displacement of people, and climate change reinforce the need for robust and sound public health infectious disease programs.

Contact us to learn more about the Health Data Utility Maturity Model
Visit thecsri.org/contact
Agenda

1. Is standardized patient data needed for multiple providers caring for patients with complex chronic conditions or serious illnesses in PB-TCOC models? If so, how?

2. Are there current examples of the collection and use of standardized patient assessment data and performance measures (e.g., post-acute care settings, other) for this patient population?

3. What strategies can be taken to improve the technology used to collect data from this patient population, the timeliness of data collection, and the sharing of resulting data with providers?
Examples of Standardized Patient Assessment and Performance Measures

- **Patient-centric:** How well is our patient (and their family) doing?
  - PHQ-9, GAD7, SBIRT, AHC SDoH, Edmonton, goals of care
- **System-centric:** How well is our team working to support
  - Achievement of POLST/MOLSTs and immediate availability to any new providers involved in care
  - Care-giver support and FUNDING where available
  - Family supports
  - Cultural sensitivity including communication in preferred language
  - Drug diversion protection
Resource: National Coalition for Hospice & Palliative Care

- Clinical Guidelines for Excellence in Palliative Care in 8 Domains
  1. Structures & Processes of Care
  2. Physical Aspects of Care
  3. Psychological and Psychiatric Aspects of Care
  4. Social Aspects of Care
  5. Spiritual, Religious, and Existential Aspects of Care
  6. Cultural Aspects of Care
  7. Care of the Patient Nearing End of Life
  8. Ethical and Legal Aspects of Care
Agenda

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Strategies

What strategies can be taken to improve the technology used to collect data from this patient population, the timeliness of data collection, and the sharing of resulting data with providers?

1. Participation with Health Data Utility/HIE by all parties engaged in care of the patients
2. Connection of live data from as many sources as possible to the network
3. Unexpected or unintentional events: Subscribe to alerting services from HDU for all admissions, discharges and transfer events
4. Expected and Planned Events: Utilize referral coordination and management systems to plan and coordinate intentional care transitions
5. Utilize patient-centric standardized screening and referral systems for SDoH, depression, pain, happiness, and any number of patient reported outcomes
6. Leverage AI well— for example to communicate rapidly in the patient’s preferred language and honor their cultural heritage and background
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5. Utilize patient-centric standardized screening and referral systems for SDoH, depression, pain, happiness, and any number of patient reported outcomes
6. Leverage AI well— for example to communicate rapidly in the patient’s preferred language and honor their cultural heritage and background
Participation in a Health Data Utility

>75 HIE/HDU’s covering >300M lives
Strategies

What strategies can be taken to improve the technology used to collect data from this patient population, the timeliness of data collection, and the sharing of resulting data with providers?

1. Participation with Health Data Utility/HIE by all parties engaged in care of the patients

2. **Connection of live data from as many sources as possible to the network**

3. Unexpected or unintentional events: Subscribe to alerting services from HDU for all admissions, discharges and transfer events

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5. Utilize patient-centric standardized screening and referral systems for SDoH, depression, pain, happiness, and any number of patient reported outcomes

6. Leverage AI well— for example to communicate rapidly in the patient’s preferred language and honor their cultural heritage and background
MyHealth Patient Population
Patient Centered Data Home™ Coverage

[Map showing coverage areas and connections]
Strategies

What strategies can be taken to improve the technology used to collect data from this patient population, the timeliness of data collection, and the sharing of resulting data with providers?

1. Participation with Health Data Utility/HIE by all parties engaged in care of the patients
2. Connection of live data from as many sources as possible to the network

3. **Unexpected or unintentional events: Subscribe to alerting services from HDU for all admissions, discharges and transfer events**

4. Expected and Planned Events: Utilize referral coordination and management systems to plan and coordinate intentional care transitions

5. Utilize patient-centric standardized screening and referral systems for SDoH, depression, pain, happiness, and any number of patient reported outcomes

6. Leverage AI well— for example to communicate rapidly in the patient’s preferred language and honor their cultural heritage and background
Alerting to Unplanned Critical Events
30-day Readmission Monitoring

<table>
<thead>
<tr>
<th>Home Organization</th>
<th>Day of Discharge Date</th>
<th>Discharging Organization</th>
<th>Patient/DeIdentified</th>
<th>Day of Activity Date</th>
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</thead>
<tbody>
<tr>
<td>St John Hospitals</td>
<td>10/12/2016</td>
<td>63957, 63967 (65)</td>
<td></td>
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<tr>
<td>Hilarion Hospital</td>
<td>10/13/2016</td>
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Optional: Exclude Event Types
- 1
- 2
- 3
- 4
- 5

Optional: Exclude Activity from Source
- R44540, L44540 (69)
Strategies

What strategies can be taken to improve the technology used to collect data from this patient population, the timeliness of data collection, and the sharing of resulting data with providers?

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6. Leverage AI well— for example to communicate rapidly in the patient’s preferred language and honor their cultural heritage and background
Planned Events: Community-wide Care Transition Coordination Process

- All communications electronic and logged
- Status of referral events clear to all involved parties
- No faxes, no printing: All records sent electronically to receiving provider
- Sending providers given the software, trained in 0.5 days
- Enables sending and receiving provider to meet meaningful use for care coordination, with or without an HIE
**Clinic 1:**

Visit Request Status as of August 31, 2011 by Month Initiated:

<table>
<thead>
<tr>
<th>Month</th>
<th>Total Number Initiated</th>
<th>Pending Appointment</th>
<th>Scheduled</th>
<th>Consult in Progress</th>
<th>Visit Occurred: Report Pending</th>
<th>Visit Occurred: Complete</th>
<th>Cancelled</th>
<th>Cancelled by Patient</th>
<th>Cancelled by Receiving Provider</th>
<th>Cancelled by Sending Provider</th>
<th>Failed Appointment</th>
<th>Rejected by Receiving Provider</th>
<th>Not Specified</th>
</tr>
</thead>
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<td>JUL 2011</td>
<td>409</td>
<td>154 37.7%</td>
<td>79 19.3%</td>
<td>4 1.0%</td>
<td>5 1.2%</td>
<td>144 35.2%</td>
<td>23 5.6%</td>
<td>6 1.5%</td>
<td>8 2.0%</td>
<td>31 7.6%</td>
<td>77 19.1%</td>
<td>1 0.2%</td>
<td>0 0.0%</td>
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<tr>
<td>AUG 2011</td>
<td>361</td>
<td>172 47.6%</td>
<td>49 13.6%</td>
<td>2 0.6%</td>
<td>3 0.8%</td>
<td>103 28.5%</td>
<td>32 8.9%</td>
<td>8 2.2%</td>
<td>7 1.9%</td>
<td>49 13.6%</td>
<td>77 20.8%</td>
<td>2 0.5%</td>
<td>2 0.6%</td>
</tr>
<tr>
<td>SEP 2010</td>
<td>442</td>
<td>227 51.4%</td>
<td>71 16.1%</td>
<td>3 0.7%</td>
<td>3 0.7%</td>
<td>106 24.0%</td>
<td>21 5.2%</td>
<td>5 1.1%</td>
<td>10 2.5%</td>
<td>15 4.2%</td>
<td>93 21.4%</td>
<td>3 0.7%</td>
<td>2 0.5%</td>
</tr>
<tr>
<td>OCT 2010</td>
<td>363</td>
<td>210 57.9%</td>
<td>55 15.2%</td>
<td>4 1.1%</td>
<td>4 1.1%</td>
<td>77 19.1%</td>
<td>14 3.6%</td>
<td>4 1.0%</td>
<td>11 2.8%</td>
<td>10 2.6%</td>
<td>93 21.4%</td>
<td>3 0.7%</td>
<td>2 0.5%</td>
</tr>
<tr>
<td>NOV 2010</td>
<td>362</td>
<td>165 45.6%</td>
<td>65 17.3%</td>
<td>2 0.6%</td>
<td>0 0.0%</td>
<td>77 19.1%</td>
<td>14 3.6%</td>
<td>4 1.0%</td>
<td>11 2.8%</td>
<td>10 2.6%</td>
<td>93 21.4%</td>
<td>3 0.7%</td>
<td>2 0.5%</td>
</tr>
<tr>
<td>DEC 2010</td>
<td>324</td>
<td>171 51.8%</td>
<td>64 19.5%</td>
<td>0 0.0%</td>
<td>0 0.0%</td>
<td>77 19.1%</td>
<td>14 3.6%</td>
<td>4 1.0%</td>
<td>11 2.8%</td>
<td>10 2.6%</td>
<td>93 21.4%</td>
<td>3 0.7%</td>
<td>2 0.5%</td>
</tr>
<tr>
<td>JAN 2011</td>
<td>325</td>
<td>211 64.9%</td>
<td>57 17.5%</td>
<td>2 0.6%</td>
<td>0 0.0%</td>
<td>77 19.1%</td>
<td>14 3.6%</td>
<td>4 1.0%</td>
<td>11 2.8%</td>
<td>10 2.6%</td>
<td>93 21.4%</td>
<td>3 0.7%</td>
<td>2 0.5%</td>
</tr>
<tr>
<td>FEB 2011</td>
<td>328</td>
<td>199 61.8%</td>
<td>37 11.3%</td>
<td>0 0.0%</td>
<td>0 0.0%</td>
<td>77 19.1%</td>
<td>14 3.6%</td>
<td>4 1.0%</td>
<td>11 2.8%</td>
<td>10 2.6%</td>
<td>93 21.4%</td>
<td>3 0.7%</td>
<td>2 0.5%</td>
</tr>
<tr>
<td>MAR 2011</td>
<td>438</td>
<td>296 67.6%</td>
<td>61 18.9%</td>
<td>2 0.6%</td>
<td>0 0.0%</td>
<td>77 19.1%</td>
<td>14 3.6%</td>
<td>4 1.0%</td>
<td>11 2.8%</td>
<td>10 2.6%</td>
<td>93 21.4%</td>
<td>3 0.7%</td>
<td>2 0.5%</td>
</tr>
<tr>
<td>APR 2011</td>
<td>426</td>
<td>277 63.8%</td>
<td>75 17.6%</td>
<td>2 0.5%</td>
<td>0 0.0%</td>
<td>77 19.1%</td>
<td>14 3.6%</td>
<td>4 1.0%</td>
<td>11 2.8%</td>
<td>10 2.6%</td>
<td>93 21.4%</td>
<td>3 0.7%</td>
<td>2 0.5%</td>
</tr>
<tr>
<td>MAY 2011</td>
<td>433</td>
<td>306 60.7%</td>
<td>70 15.5%</td>
<td>2 0.6%</td>
<td>0 0.0%</td>
<td>77 19.1%</td>
<td>14 3.6%</td>
<td>4 1.0%</td>
<td>11 2.8%</td>
<td>10 2.6%</td>
<td>93 21.4%</td>
<td>3 0.7%</td>
<td>2 0.5%</td>
</tr>
<tr>
<td>JUN 2011</td>
<td>457</td>
<td>343 68.7%</td>
<td>71 18.1%</td>
<td>2 0.7%</td>
<td>0 0.0%</td>
<td>77 19.1%</td>
<td>14 3.6%</td>
<td>4 1.0%</td>
<td>11 2.8%</td>
<td>10 2.6%</td>
<td>93 21.4%</td>
<td>3 0.7%</td>
<td>2 0.5%</td>
</tr>
<tr>
<td>JUL 2011</td>
<td>392</td>
<td>334 67.8%</td>
<td>80 19.4%</td>
<td>4 1.4%</td>
<td>0 0.0%</td>
<td>77 19.1%</td>
<td>14 3.6%</td>
<td>4 1.0%</td>
<td>11 2.8%</td>
<td>10 2.6%</td>
<td>93 21.4%</td>
<td>3 0.7%</td>
<td>2 0.5%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>5,017</td>
<td>2,977 59.3%</td>
<td>876 17.5%</td>
<td>57 1.1%</td>
<td>123 2.5%</td>
<td>4,460 13.7%</td>
<td>299 6.0%</td>
<td>45 0.9%</td>
<td>53 1.1%</td>
<td>123 2.5%</td>
<td>931 18.6%</td>
<td>431 8.6%</td>
<td>635 12.9%</td>
</tr>
</tbody>
</table>
eConsultations to Optimize Care Transitions
Results: eConsultations in Medicaid

• Patients receiving an online consult had a significant reduction in PMPM cost of care when compared with themselves as historical controls:
  – $140.53 Pre Consult vs. $78.16 Post Consult
  – Net savings of $62.37, \( p=0.021 \)

• Compared with patients who received a referral but NOT a consult:

<table>
<thead>
<tr>
<th>Cost Type</th>
<th>Mean PMPM Cost Change</th>
<th>Mean Percentage Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility Costs (UB92)</td>
<td>-$13.00</td>
<td>-20%</td>
</tr>
<tr>
<td>Professional Costs (HCFA 1500)</td>
<td>-$108.04</td>
<td>-34%</td>
</tr>
<tr>
<td>Pharmacy Costs (PBM)</td>
<td>-$9.14</td>
<td>-14%</td>
</tr>
<tr>
<td>Total Costs</td>
<td>-$130.18</td>
<td></td>
</tr>
</tbody>
</table>
Strategies

What strategies can be taken to improve the technology used to collect data from this patient population, the timeliness of data collection, and the sharing of resulting data with providers?

1. Participation with Health Data Utility/HIE by all parties engaged in care of the patients
2. Connection of live data from as many sources as possible to the network
3. Unexpected or unintentional events: Subscribe to alerting services from HDU for all admissions, discharges and transfer events
4. Expected and Planned Events: Utilize referral coordination and management systems to plan and coordinate intentional care transitions
5. **Utilize patient-centric standardized screening and referral systems for SDoH, depression, pain, happiness, and any number of patient reported outcomes**
6. Leverage AI well— for example to communicate rapidly in the patient’s preferred language and honor their cultural heritage and background
Patient checks into clinic.

SDoH Screening text from MyHealth is triggered to patient’s cell phone while they are in the waiting room.

MyHealth processes the results to determine social needs reported.

If a need is reported, a community resource summary is returned via text with information for 3 resources per need identified.

Referral sent to partner for closed loop coordination.
Mobile Screening

7. Within the past 12 months, you worried that your food would run out before you got money to buy more.
   - Often true
   - Sometimes true
   - Never true

9. In the past 12 months, has lack of reliable transportation kept you from medical appointments, meetings, work or from getting to things needed for daily living?
   - Yes
   - No

Click the link below if you would like to view the Privacy Act Notice for the Accountable Health Communities.
Model: https://myhealthaccess.net/MyHealthAccountable-Health-Communities-Screening-Privacy-Notice-Final.pdf

Thank you for completing our survey! Based on your survey results you may receive an additional text message with a link to help connect you to services in your community that may improve your health. Many of these services are low cost or free of charge.
Texted back to patient after completion of the screening

*Every community resource summary includes information for 211*
By the numbers:

- **4.5+** million offers to screen
- **900,000+** responses
- **300,000+** responses with needs
- **400,000+** individual needs reported & addressed

24% of responses report 2+ needs

Average of **1.7** needs are reported per need positive screening

85% of responses with a living need is due to living conditions* rather than having a place to stay

**SDOH Program Metrics**

*Living condition issues include lack of heating, lead paint or pipes, mold, oven or stove not working, pests, missing or not working smoke detectors, and water leaks*
# SDOH Screening Metrics

## Year to Date

<table>
<thead>
<tr>
<th>Category</th>
<th>Food Need Rate</th>
<th>Interpersonal Violence Need Rate</th>
<th>Living Need Rate</th>
<th>Transportation Need Rate</th>
<th>Utility Assistance Need Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Insurance</td>
<td>28%</td>
<td>4%</td>
<td>17%</td>
<td>11%</td>
<td>14%</td>
</tr>
<tr>
<td>Medicaid</td>
<td>25%</td>
<td>4%</td>
<td>15%</td>
<td>11%</td>
<td>12%</td>
</tr>
<tr>
<td>Medicare</td>
<td>11%</td>
<td>2%</td>
<td>9%</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Commercial</td>
<td>8%</td>
<td>1%</td>
<td>7%</td>
<td>2%</td>
<td>5%</td>
</tr>
</tbody>
</table>
# SDOH Screening Metrics

## Year to Date

### Needs Rate for each of the 5 Core Needs Screened for through MyHealth's SDoH Screening by Age Bucket

<table>
<thead>
<tr>
<th>Group</th>
<th>Food Need Rate</th>
<th>Interpersonal Violence Need Rate</th>
<th>Living Need Rate</th>
<th>Transportation Need Rate</th>
<th>Utility Assistance Need Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 18</td>
<td>12%</td>
<td>2%</td>
<td>6%</td>
<td>4%</td>
<td>7%</td>
</tr>
<tr>
<td>19 - 59</td>
<td>14%</td>
<td>2%</td>
<td>10%</td>
<td>5%</td>
<td>7%</td>
</tr>
<tr>
<td>60 - 64</td>
<td>11%</td>
<td>2%</td>
<td>9%</td>
<td>4%</td>
<td>5%</td>
</tr>
<tr>
<td>&gt; = 65</td>
<td>7%</td>
<td>1%</td>
<td>7%</td>
<td>3%</td>
<td>3%</td>
</tr>
</tbody>
</table>
MyHealth AHC Need Rates by Clinical Site Type

Approx. 1 in 3 responses from the ER report at least 1 need compared to approx. 1 in 5 in a primary care setting.
MyHealth AHC Need Rates by Insurance Type

Need Rates by Insurance Type

<table>
<thead>
<tr>
<th>Insurance Type</th>
<th>Overall Patient Need Rate</th>
<th>Food Need Rate</th>
<th>Living Situation Need Rate</th>
<th>Utility Need Rate</th>
<th>Transportation Need Rate</th>
<th>Safety Need Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Insurance</td>
<td>52%</td>
<td>48%</td>
<td>31%</td>
<td>15%</td>
<td>10%</td>
<td>2%</td>
</tr>
<tr>
<td>Medicaid</td>
<td>36%</td>
<td>17%</td>
<td>9%</td>
<td>5%</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>Medicare</td>
<td>22%</td>
<td>26%</td>
<td>13%</td>
<td>10%</td>
<td>10%</td>
<td>5%</td>
</tr>
<tr>
<td>Commercial</td>
<td>17%</td>
<td>10%</td>
<td>7%</td>
<td>5%</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>Total</td>
<td>22%</td>
<td>6%</td>
<td>13%</td>
<td>5%</td>
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</tr>
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</table>
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6. Leverage AI well— for example to communicate rapidly in the patient’s preferred language and honor their cultural heritage and background
Smart Use of Artificial Intelligence

• **Basic:**
  – Cultural sensitivity
  – Live translation of ANY LANGUAGE
  – Rapid creation of written training materials in any language

• **Advanced:**
  – Leverage Health Data Utility data to train AI models for risk identification and treatment optimization
  – Live decision support based on model trained on each patient's record
    • Tens of thousands of data points per patient incorporated
Discussion

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www.MyHealthAccess.net