PATIENT RISK DATA AND THE PATHWAY TO TRANSFORMATION

Michelle Jester
Research Manager
National Association of Community Health Centers

Best Place to Live Summit
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WHY IS IT IMPORTANT TO COLLECT STANDARDIZED DATA ON THE SOCIAL DETERMINANTS OF HEALTH?
WHAT IS DRIVING THE NEED TO COLLECT DATA ON THE SOCIAL DETERMINANTS OF HEALTH (SDH)?

Figure 1

A Framework for Health Equity

**Upstream**
- Discriminatory Beliefs (ISMS)
  - Race
  - Class
  - Gender
  - Immigration status
  - National origin
  - Sexual orientation
  - Disability
- Institutional Power
  - Corporations & other businesses
  - Government agencies
  - Schools
- Social Inequities
  - Neighborhood conditions
    - Social
    - Physical
    - Residential segregation
    - Workplace conditions

**Downstream**
- Risk Factors & Behaviors
  - Smoking
  - Nutrition
  - Physical activity
  - Violence
  - Chronic Stress
- Disease & Injury
  - Infectious disease
  - Chronic disease
  - Injury (intentional & unintentional)
- Mortality
  - Infant mortality
  - Life expectancy

**Socio-Ecological**

**Medical Model**

How well do we know our patients?

Are services addressing SDH incentivized and sustainable?

Are community partnerships adequate and integrated?

PRAPARE: Protocol for Responding to and Assessing Patient Assets, Risks, and Experiences

Overall Project Goal

To create, implement/pilot test, and promote a national standardized patient risk assessment protocol to assess and address patients’ social determinants of health (SDH).

In other words, position health centers to

- Document the extent to which each patient and their total patient populations are complex
- Use that data to improve patient health, affect change at the community/population level, and sustain resources and create community partnerships necessary to improve health.
Prepare positions health care staff to improve individual and community health

- **Individual-level**
  - Patient and Family
    - Improve health
  - Care Team Members
    - Better manage patient needs with services
  - Health Center
    - Better understand patient population
  - Community Policies
    - Inform advocacy efforts related to local policies around SDH
  - Local Health System
    - Provide comparison data for other local clinics and to inform partnerships

- **Local-level**
  - Payment Negotiation
    - Demonstrate the relationship between patient SDH and cost of care for fair provider comparisons (risk adjustment)

- **State and national-level**
  - State and National Policies
    - Improve health center capacity for serving complex patients (payment reform)
FROM DATA TO PAYMENT: CONNECTING THE DOTS

**Community Context**
- Upstream socio-ecological factors impact behaviors, access, outcomes, and costs

**Understand Patients**
- Inquiry and standardized data collection
- Understand extent of patient & population complexity

**Transformation of Care**
- Linkages to non-clinical partners
- New or Improved Non-Clinical Interventions and Enabling Services
- Improve patient and staff experiences

**Impact**
- Impact root causes of poor health
- Produce better outcomes
- Lower total cost of care

**Demonstrate Value**
- Negotiate for payment change
- Ensure sustainability of interventions

Analyze standardized data
HOW DID WE CREATE PRAPARE?
TIMELINE OF THE PROJECT

Year 1
2014
• Develop paper version of PRAPARE

Year 2
2015
• Test PRAPARE in health center workflow with CHCs and HCCNs and develop EHR templates

Year 3
2016
• Disseminate tool widely and release final report
Literature reviews of SDH associations with cost and health outcomes

Monitored and/or aligned with national initiatives
- HP2020
- RWJF County Health Rankings
- IOM on SDH in MU Stage 3
- NQF on SDH Risk Adjustment
- SBM & NIH

Collected existing protocols from the field
- Collected 50 protocols
- Interviewed 20 protocols
- Identified top 5 protocols

Engaged stakeholders for feedback
- Braintrust (advisory board) discussion
- Surveyed stakeholders
- Distributed worksheet to potential users for feedback

IDENTIFYING CORE DOMAINS

Used evidence to apply domain criteria

Identified 15 Core Domains
### PRAPARE DOMAINS

#### Core

<table>
<thead>
<tr>
<th>UDS SDH Domains</th>
<th>Non-UDS SDH Domains</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Race</td>
<td>10. Education</td>
</tr>
<tr>
<td>2. Ethnicity</td>
<td>11. Employment</td>
</tr>
<tr>
<td>6. Income</td>
<td></td>
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<tr>
<td>7. Insurance</td>
<td></td>
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<tr>
<td>8. Neighborhood</td>
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<td>9. Housing</td>
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#### Optional

<table>
<thead>
<tr>
<th>Non-UDS SDH Domains</th>
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<tbody>
<tr>
<td>1. Incarceration History</td>
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<tr>
<td>2. Transportation</td>
</tr>
<tr>
<td>3. Refugee Status</td>
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<tr>
<td>4. Country of Origin</td>
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<tr>
<td>5. Safety</td>
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<tr>
<td>6. Domestic Violence</td>
</tr>
</tbody>
</table>

PRAPARE asks 15 questions to assess 14 core SDH domains.

- 9 domains already asked for UDS reporting
- 5 non-UDS domains informed by MU3

PRAPARE has 6 optional domains.
<table>
<thead>
<tr>
<th>PRAPARE Domain</th>
<th>UDS</th>
<th>ICD-10</th>
<th>IOM</th>
<th>Meaningful Use (2 and 3)</th>
<th>HP2020</th>
<th>RWJF County Health</th>
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<td>Veteran Status</td>
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<td>Insurance Status</td>
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<tr>
<td>Neighborhood</td>
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<td>X</td>
<td>X</td>
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<tr>
<td>Housing</td>
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<td>Education</td>
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<td>Employment</td>
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<td>Material Security</td>
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<td>X</td>
<td>X</td>
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<tr>
<td>Social Integration</td>
<td>X</td>
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<td>X</td>
<td>X</td>
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<tr>
<td>Stress</td>
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<td>X</td>
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</table>
WHAT IS THE STATUS OF PRAPARE?
TIMELINE OF THE PROJECT

Year 1
2014
- Develop paper version of PRAPARE

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- Test PRAPARE in health center workflow with CHCs and HCCNs and develop EHR templates

Year 3
2016
- Disseminate tool widely and release final report
PILOT TESTING PRAPARE WITH A LEARNING COMMUNITY OF IMPLEMENTATION TEAMS

Teams reach states across the country, aiding with the national dissemination of PRAPARE.
## EARLY FINDINGS OF SDH FREQUENCIES

<table>
<thead>
<tr>
<th>PRAPARE SDH Domain</th>
<th>% of population with SDH need</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmworker Status</td>
<td>23%</td>
</tr>
<tr>
<td>From a country other than the United States</td>
<td>85%</td>
</tr>
<tr>
<td>Language other than English</td>
<td>79%</td>
</tr>
<tr>
<td>Income: 100% FPL or below</td>
<td>68%</td>
</tr>
<tr>
<td>Education: Less than high school degree</td>
<td>45%</td>
</tr>
<tr>
<td>Education: Only high school diploma or GED</td>
<td>28%</td>
</tr>
<tr>
<td>Employment: Unemployed</td>
<td>11%</td>
</tr>
<tr>
<td>Employment: Part-time Work</td>
<td>33%</td>
</tr>
<tr>
<td>Insurance Status: Uninsured</td>
<td>50%</td>
</tr>
<tr>
<td>Need help with transportation to get to medical appointments</td>
<td>22%</td>
</tr>
<tr>
<td>Need help paying for medicine/medical care</td>
<td>22%</td>
</tr>
<tr>
<td>Need help affording insurance</td>
<td>33%</td>
</tr>
<tr>
<td>Categories</td>
<td>Examples of Potential Resources to Include</td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Step 1: Understand the Project</td>
<td>Project overview, project framework, defining risk, case studies, FAQs</td>
</tr>
<tr>
<td>Step 2: Engage Key Stakeholders</td>
<td>Messaging materials, change management guidance</td>
</tr>
<tr>
<td>Step 3: Strategize the Implementation Plan</td>
<td>Readiness assessment, PDSA materials, 5 Rights Framework, Implementation timeline, progress reports, legal documents</td>
</tr>
<tr>
<td>Step 4: Technical Implementation</td>
<td>PRAPARE paper assessment, data documentation, EHR templates, sample data dictionaries, data specifications, data warehouse and retrieval strategies, guidelines for using design and requirements documents</td>
</tr>
<tr>
<td>Step 5: Workflow Implementation</td>
<td>Data collection training curriculum, lessons learned and best practices</td>
</tr>
<tr>
<td>Step 6: Understand and Report Your Data</td>
<td>Reporting requirements, sample database, sample data outputs, sample data analyses and reports, cross-tabulating data, evaluation protocol, population-level planning, guidelines for data integration</td>
</tr>
<tr>
<td>Step 7: Act on Your Data</td>
<td>Strategy for detecting risk, report on best practices and processes for using SDH data, examples of SDH interventions, SDH response codes, linking to enabling services codes</td>
</tr>
<tr>
<td>Step 8: Use Your Data to Drive Payment and Policy Transformation</td>
<td>Strategy to engage payers, funding SDH efforts, data visualization templates</td>
</tr>
</tbody>
</table>
APN Transitional Care Model

Purpose
To reduce readmission rates after hospitalization by ensuring a smooth transition from hospital to home care for geriatric patients.

Target Population
Geriatric patients currently in or recently discharged from a participating hospital.

Goals
- Improve post-discharge outcomes
- Lower rate of re-hospitalization
- Reduce healthcare costs

Years In Operation
1999 – present

Results
- Findings from three clinical trials demonstrate that the APN Transitional Care Model improves quality of care and decreases healthcare costs.
- Compared to standard care, there are longer intervals before initial re-hospitalizations, fewer re-hospitalizations overall, shorter hospital stays, and better patient satisfaction.
- Following a four-year trial with a group of elderly patients hospitalized with heart failure, the APN Transitional Care Model cut hospitalization costs by more than $100,000, compared with a group receiving standard care — for an average savings of approximately $5,000 per Medicare patient.

Funding

Key Partners
Advance practice nurses (APNs) and other providers, patients, and caregivers. Atrius, Inc. and Kaiser Permanente are testing “real-world” applications of this model.

What Works and Why
The model uses a holistic approach of “health care team management,” led by an advance practice nurse. APNs begin to work with the patient and the patient’s family and healthcare team to design an individualized discharge plan while the patient is in the hospital. By engaging and:

working with the caregivers and patients before discharge, there is better, on-going communication about post-discharge care and expectations.

Costs are lowered because the approach reduces the number of re-admissions of elderly patients caused by not understanding or following post-discharge care instructions, a lack of care coordination among providers, and not understanding symptoms that require immediate attention.

Structure and Operations
- Assures that APNs establish a relationship with patients and their families soon after hospital admission: design the discharge plan in collaboration with the patient, the patient’s physician, and family members and implement the plan in the patient’s home following discharge, substituting for traditional skilled nursing follow-up.
- Reduces the incidence of poor communication among providers and healthcare agencies, inadequate patient and caregiver education, and poor quality of care; enhances access to quality care.

Barriers to Success
- The APN Transitional Care Model was tested in a clinical trial setting. Real-world experience may differ.

For More Information
Additional information is available online:
http://www.nursing.upmc.edu/essays/beggs/TransitionalCare.htm
HOW CAN PREPARE BE USED AT YOUR ORGANIZATION?
Maria’s Story: Example of a care narrative without PRAPARE

**MEDICAL HISTORY**
Uncontrolled diabetes, missed appointments, and poor medication adherence

**COMPLAINT**
Maria fell asleep at the stove and almost caused a fire

**DIAGNOSIS**
Sleep apnea, hypertension, and dangerously high blood sugar

**INTERVENTION**
Hospitalized for blood sugar, prescription for hypertension, and placed on a CPAP machine for sleep apnea

**FOLLOW-UP**
Two weeks later, Maria is back with the same clinical presentation of symptoms

**SDH INVESTIGATION**
Care team discovers she has not been taking her medicine or using the CPAP machine because she can’t afford them
Maria fell asleep at the stove and almost caused a fire. Sleep apnea, hypertension, and dangerously high blood sugar were present. Uncontrolled diabetes, missed appointments, and poor medication adherence were also noted. Hospitalized for blood sugar, prescription for hypertension, and placed on a CPAP machine for sleep apnea.

Two weeks later, Maria is back with the same clinical presentation of symptoms. Administrated PRAPARE and assess SDH interfering with clinical care. Maria is monitored for treatment plan adherence and seen before the 2 week mark due to her high risk profile.

Care team discovers she has not been taking her medicine or using the CPAP machine because she can’t afford them.

How could PRAPARE change this narrative?

**COMPLAINT**

Maria fell asleep at the stove and almost caused a fire.

**MEDICAL HISTORY**

Uncontrolled diabetes, missed appointments, and poor medication adherence.

**DIAGNOSIS**

Sleep apnea, hypertension, and dangerously high blood sugar.

**INTERVENTION**

Hospitalized for blood sugar, prescription for hypertension, and placed on a CPAP machine for sleep apnea.

**SDH INVESTIGATION**

Care team discovers she has not been taking her medicine or using the CPAP machine because she can’t afford them.

**FOLLOW-UP**

Connect with resources for material insecurity.
WORKFLOW OPTIONS

Demographics Data Capture

Front Desk Staff check in patient for their appointment
- Staff enter/update demographics fields

Front Desk Staff enter/update the following in eCW demographics and additional information fields at each visit:
- Name
- Address
- Gender
- Address if different than billing
- Sliding Fee Income Information
- Insurance
- Race
- Ethnicity
- Language
- Veteran Status
- Other required fields by the health center

Demographic data stored in eCW for use with the PRAPARE tool using mapping. Data is also available for all users with EHR access.

Clinical Staff room the patient
Clinical Visit with Provider
- Provider review progress note information entered
- Conduct Clinical Visit
- Provider identifies patients and sends to the Patient Advocate.
  - Need enabling services
  - Chronic disease education
  - Referral
  - Pregnant women
  - Behavioral health patients

Patient goes to Patient Navigator office

SDH Completed Previously?
- Yes
  - Patient Navigator Updates SDH Entered/Reviewed date
  - Review previous responses with patient
  - Enter changes in Social History SDH structured data
- No

Enabling Services Needed?
- Yes
  - Patient Navigator refers patient to appropriate resources based on SDH responses
- No
  - Patient Navigator asks the patient each question
  - Update SDH Entered/Reviewed date
  - Enter responses in the Social History SDH structured data
Nurse/MA rooms patient
  • Take Vitals
  • Complete intake

AmeriCorps/Health Care Worker Enters Exam Room
  • Update SDH Entered/Reviewed date
  • Review previous responses with patient for changes and update responses

SDH Completed Previously?
  Yes
  • Ask the patient each question
  • Enter their response in the structured data in eCW
  No

Enabling Services Needed?
  Yes
  • Direct patient to appropriate resources based on SDH responses.
  No

Provider Enters Room
  • Provider review progress note information
  • Discuss any issues identified during intake and SDH responses
  • Clinical Visit
NEED
- Standardized data on patient risk

RESPONSE
- Standardized data on interventions

Together, these data can demonstrate the value in effectively meeting needs of complex patients and benefiting the overall health system.
Enabling Services Accountability Project (ESAP)

The ONLY standardized data system to track and document non-clinical enabling services that help patients access care.

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CASE MANAGEMENT ASSESSMENT</td>
<td>CM001</td>
</tr>
<tr>
<td>CASE MANAGEMENT TREATMENT AND FACILITATION</td>
<td>CM002</td>
</tr>
<tr>
<td>CASE MANAGEMENT REFERRAL</td>
<td>CM003</td>
</tr>
<tr>
<td>FINANCIAL COUNSELING/ELIGIBILITY ASSISTANCE</td>
<td>FC001</td>
</tr>
<tr>
<td>HEALTH EDUCATION/SUPPORTIVE COUNSELING</td>
<td>HE001</td>
</tr>
<tr>
<td>INTERPRETATION</td>
<td>IN001</td>
</tr>
<tr>
<td>OUTREACH</td>
<td>OR001</td>
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<tr>
<td>TRANSPORTATION</td>
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<tr>
<td>OTHER</td>
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</table>
NEXT STEPS
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Refine and revise protocol based on stakeholder feedback

2015

Complete pilot-test and revise as necessary (MU-3)

2016

Complete Implementation & Action Toolkit

National Dissemination of PRAPARE

Plan for Phase II

Including:
* Validation and Translation
* Standardized data on Interventions
* National PRAPARE Learning Network

Including:
* Free EHR Templates
* Training Materials
* Models of Interventions to Address the SDH
RESOURCES AVAILABLE TO YOU

PRAPARE resources under Social Determinants of Health Folder - www.healthcarecommunities.org/ResourceCenter.aspx

- Implementation steps and timeline
- PRAPARE Tool
- Data Documentation
- Educational materials about PRAPARE and other health center SDH projects

AAPCHO’s ESAP technical and other resources at http://enablingservices.aapcho.org.
CONTACT INFO:

PRAPARE info and listserv signup: Michelle Jester, mjester@nachc.org

AAPCHO ESAP technical assistance: Tuyen Tran, ttran@aapcho.org
QUESTION AND DISCUSSION