Designing EHR Tools for Collecting, Summarizing, & Acting on Patient-Reported SDH, in CHCs: A Stakeholder-Driven Process

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WE ARE OCHIN

Study Team

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Act on Social Determinants using EHR tools in Safety Net Settings for Diabetes Outcomes (ASSESS & DO)

Specific Pilot Study Aims:

1. Learn how to systematically collect, document Social Determinants of Health (SDH) data, and track SDH referrals, in CHCs' EHR

2. Create 'SDH Data Tools'

3. Evaluate tool uptake in 3 pilot CHCs

Funding: National Institutes of Diabetes and Digestive and Kidney Diseases (NIDDK) - R18DK105463
Study period: Two year pilot (9/1/15 – 8/31/17)

Background

- **Few approaches to capturing / presenting SDH data in CHCs' EHRs have been developed or tested**

- The PRAPARE project, led by the National Association of CHCs, created preliminary approaches to SDH screening
  - Based (in part) on IOM-recommended SDH screening measures

- Next, we developed **EHR-based strategies** for collecting, presenting and acting on patient-reported SDH data in CHCs

Consider these questions during this talk …

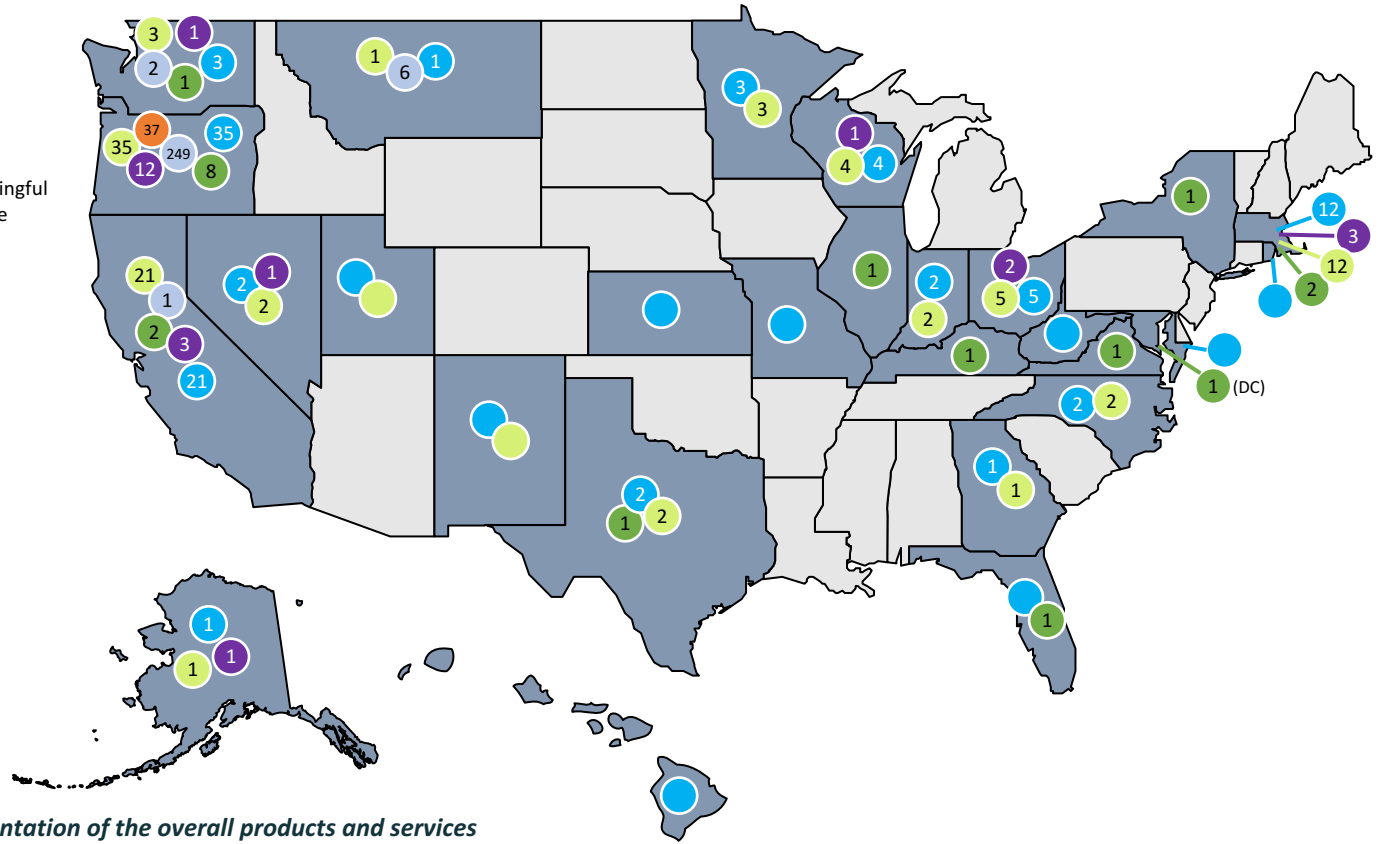
- IOM list may be TMI – can we boil it down?
- How to identify which patients
  - Have SDH needs
  - Want help with them (and what kind)
- Implementation / workflows
  - Paper vs electronic primary collection
  - Ensuring correct staff know the tools are there (and can access them, and use them)
- Next steps with these tools? How to improve?

Study context: OCHIN

- A non-profit, full service HIT provider for CHCs
- 1 centrally managed Epic EHR
- + help with reporting, decision support, QI
- Research at OCHIN since 2007
- >100 member organizations, >480 member clinics (including >440 CHCs) in 18 states; >1,700,000 patients in last 3 years

OCHIN network of CHCs

- OCHIN Epic (94 total members)
- Oregon Medicaid Meaningful Use Technical Assistance Program (OMMUTAP) (37 total members)
- OCHIN Billing Services (24 total members)
- OCHIN Broadband Network Services (258 total connections)
- Acuere QOL (23 total states)
- OCHIN Research (20 active partnerships)



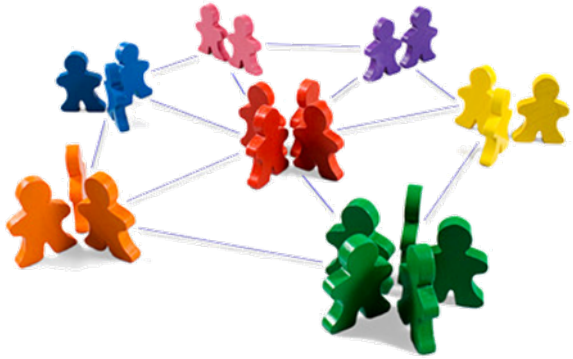
This map is a representation of the overall products and services provided to OCHIN members and their clinics. *(160622)*

Methods: SDH Tool Development Process

Engaged CHC stakeholders to:

1. Decide which SDH domains to include (IOM, PRAPARE, other?)
2. Design EHR-based SDH tools that let care teams **collect, summarize, review patient SDH data**
3. Design EHR-based SDH tools that help care teams **identify, make, track referrals to community resources** (3 pilot CHCs)

CHC stakeholders



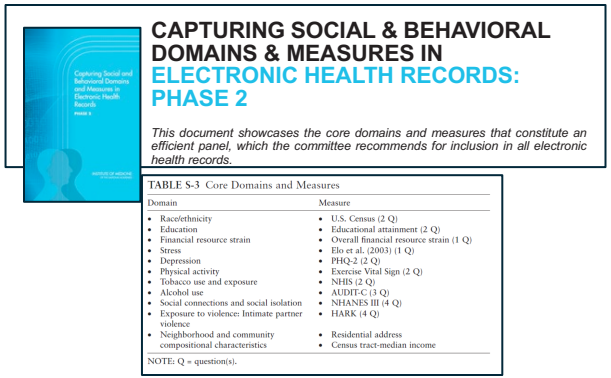
- ASSESS&DO study **pilot sites**
  - Urban CHC in Portland, Oregon
  - Rural CHC in Southern Oregon
  - Rural CHC in Southwest Washington
- OCHIN **Primary Care Clinical Operations Review Committee (PC-CORC)**
  - Workgroup: clinical staff from OCHIN member organizations
  - Engaged membership: 12-25 participants from diverse geographic regions, practice types
  - Provides input on any changes to OCHIN EHR
- **Also conferred with** PRAPARE, Kaiser Permanente, Epic©, SDH experts

Q1: Which SDH Domains?

Considered:

- What SDH data already collected?
- What did IOM recommend?
- What did PRAPARE recommend?
- What did KP use?
- Differences in wording?

Process: Multiple meetings over 6 months



CAPTURING SOCIAL & BEHAVIORAL DOMAINS & MEASURES IN ELECTRONIC HEALTH RECORDS: PHASE 2

This document showcases the core domains and measures that constitute an efficient panel, which the committee recommends for inclusion in all electronic health records.

TABLE S-3 Core Domains and Measures

Domain	Measure
• Race/ethnicity	• U.S. Census (2 Q)
• Education	• Educational attainment (2 Q)
• Financial resource strain	• Overall financial resource strain (1 Q)
• Stress	• Elo et al. (2003) (1 Q)
• Depression	• PHQ-2 (2 Q)
• Physical activity	• Exercise Vital Sign (2 Q)
• Tobacco use and exposure	• NHIS (2 Q)
• Alcohol use	• AUDIT-C (3 Q)
• Social connections and social isolation	• NHANES III (4 Q)
• Exposure to violence: Intimate partner violence	• HARK (4 Q)
• Neighborhood and community compositional characteristics	• Residential address • Census tract-median income

NOTE: Q = question(s).

Decided to include:

1. Alcohol use*
2. Race and ethnicity*
3. Tobacco use / exposure *
4. Depression*
5. **Education****
6. **Financial resource strain**
7. **Intimate partner violence**
8. **Physical activity**
9. **Social connections / isolation**
10. **Stress**
11. **Sexual orientation / gender identity**
12. **Housing****
13. **Food insecurity****

*=already routinely collected in EHRs

**=prioritized by OCHIN CORC

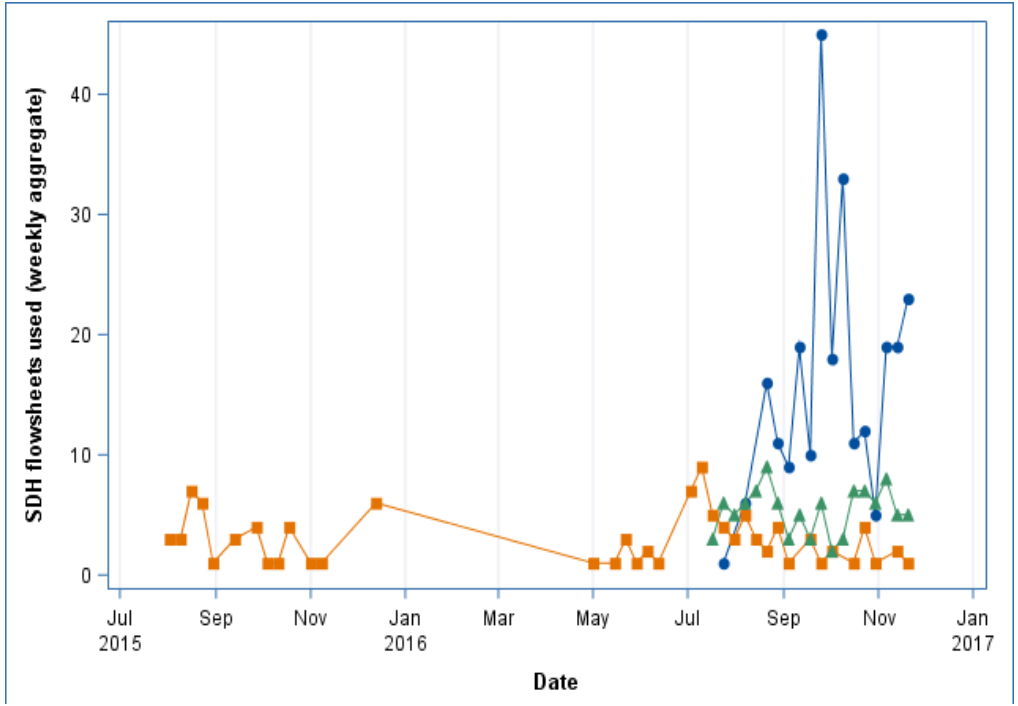
Q2: Tools for Collecting, Summarizing SDH Data?

- Mocked-up tools based on commonly-used EHR functions (e.g., flowsheets, preference lists)
- Presented to CORC and pilot CHCs, sought feedback
  - Multiple meetings over 6 months
  - Epic programmer advised on feasibility of suggested changes
- Revised tools based on stakeholder feedback
- Verified that revisions addressed feedback (follow-up meetings, calls)

Q3: Tools for Making, Tracking SDH Referrals?

- Wanted SDH referrals to work like clinical referrals, as possible
- Pilot CHCs identified SDH domains for which they wanted community resource referral lists:
  - Housing, food, transportation, intimate partner violence
- Considered existing services like 211, Purple Binder, etc.
  - All had downstream costs or other limitations
- Created “preference lists” with *current local resources*
  - built on local knowledge of relevant services
- How to maintain these?

Preliminary Results (6/24/16 - 11/16/16)



Pilot CHC	Patients screened	% screened who were referred via preference lists*
1 (K)	257	49%
2 (M)	108	3%
3 (S)	102	38%

*Some barriers to preference list use have been identified

Lessons and challenges

Which SDH measures?

- ✓ Many CHC patients have financial hardship; granular SDH data needed to ID *specific* needs
- ✓ Added question on *preferred learning style* (reading, listening, pictures)
- ✓ How many Qs? Which most important? Minimum?
- ✓ What counts as a positive screen? Says who?

Other considerations:

- ✓ How to avoid duplicate data entry? Manage conflicting data?
- ✓ How to adapt to local needs, while supporting national standardization?

Lessons and challenges

Collecting SDH data:

- ✓ Workflows! Whose job is it?
- ✓ Preferred: SDH data collection, referrals done by support staff, not clinicians
- ✓ Must enable SDH data collection by diverse care team members (to fit various workflows)
- ✓ Paper versions: must be hand-entered into EHR → timing issues (but is what people are used to!)
  - Sometimes data never entered into EHR
- ✓ Considered using tablets: too complex / costly? Considered portal signup on the spot: led to impractical multi-step workflow
- ✓ More research needed on mechanisms / technologies for getting SDH data directly into the EHR
- ✓ Screening reminder options?

Lessons and challenges

Ordering referrals:

- ✓ Can’t schedule appointments, as you might with some clinical referrals
- ✓ What does an SDH “referral” involve? How much staff ‘touch’?
- ✓ Impact on work burden: created a new referral option → ‘no follow-up needed’
- ✓ Support staff must be trained / authorized to use referral tools (may involve programming!)
- ✓ Referrals may be part of outreach (between visits) – how to ID which patients should be called?

Tracking past referrals:

- ✓ Requires use of the preference lists / ICD10 codes, or can’t be tracked
  - Which codes???
- ✓ HARD to monitor referral outcomes

More Lessons and Challenges

- ✓ Coding for SDH needs – not yet standardized
  - See Gottlieb 2016 Health Affairs
- ✓ Don't want to add to problem list complexity
  - Create an SDH 'box' within the problem list?
- ✓ Not all patients with SDH needs want them addressed
  - ✓ BUCKETING
  - ✓ SEGMENTATION
  - ✓ Do you want help? What kind of help? → How can EHR tools facilitate this?
- ✓ Avoid implying that the clinic can help with any / all SDH needs
- ✓ Modularity of tools?

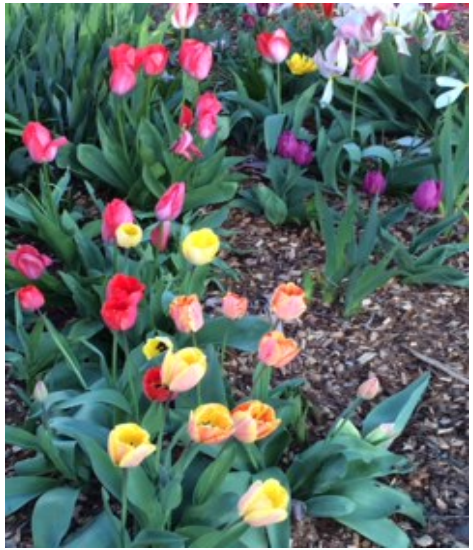
Next steps

- Proposal submitted fall 2016: Test approaches to helping CHCs implement SDH-related workflows, data collection, action
- Planned proposals:
  - Merck: Partner with Oregon Food Bank
  - Other research on connecting to community resources
  - Gottlieb / Hessler: Provider / patient activation methods?
  - Community vital signs
    - On their own? As a complement? Instead of patient-reported?
  - What else???? Ideas?

Discussion questions / current challenges

- How many / which SDH questions are essential?
- Optimal workflows?
- Better methods for patient-led data entry?
- How to take action / make referrals?
- How to know if patients want SDH help from their care team, and if so, what kind???? How can EHR help?
- Implementation strategies?
- Orienting correct staff to tool use (wait, there's a summary page?)

Thank You!



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