NATIONAL ASSOCIATION OF Community Health Centers®

SDOH In Practice: Understanding Last Mile Challenges

Julia Skapik, MD, MPH, FAMIA

CMIO

National Association of Community Health Centers

NACHC's STRATEGIC PILLARS

1

Equity and Social Justice

Center everything we do in a renewed commitment to equity and social justice

2

Empowered Infrastructure

Strengthen and reinforce the infrastructure for leading and coordinating the Community Health Center Movement, notably consumer boards and NACHC itself

3

Skilled and Mission-driven Workforce

Develop a highly skilled, adaptive, and mission-driven workforce reflecting the communities served

4

Reliable and Sustainable Funding

Secure reliable and sustainable funding to meet increasing demands for Community Health Center services

5

Improved Care Models

Update and improve care models to meet the evolving needs of the communities served

6

Supportive Partnerships

Cultivate new and strengthen existing mutually beneficial partnerships to advance the shared mission of improving community health

To learn more about NACHC's Strategic Pillars visit https://www.nachc.org/about/about-nachc/

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* Disclosure: Julia is also the volunteer Board Chair of HealthLevel7 International, an international health IT standards development organization (SDO).

Agenda

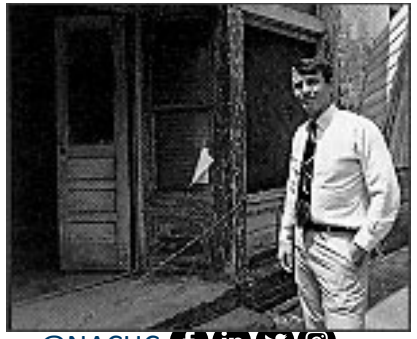
- Understanding the role of health centers in the health data ecosystem
- Our responsibility to patients and care teams: preventing moral injury and creating access
- The challenge of standards and documentation in EHRs
- Structured data around SDOH and social interventions
- Best practices and opportunities for SDOH

THE COMMUNITY HEALTH CENTERS:
AN OUTGROWTH OF THE CIVIL RIGHTS MOVEMENT

Dr. Robert Smith formed the Southern branch of the Medical Committee for Civil Rights (MCCR) in 1963 to protest the American Medical Association (AMA), which allowed southern medical societies to remain segregated and often kept Black physicians from being employed at hospitals.

Health centers were created to provide culturally competent healthcare in healthcare access deserts, a practice which continues today.

Originally intending to pursue a cardiology practice, Dr. James Hotz somehow found himself practicing family medicine in southwest Georgia instead. Below: one of the first sites of a clinic he helped establish.



HEALTH CENTERS

FIVE ESSENTIAL ELEMENTS

1. Located in **high-need areas.**
2. Provide **comprehensive** health and wraparound services (including enabling services).
3. **Open to all** residents, regardless of insurance or ability to pay, with sliding scale fee based on income.
4. Nonprofits, governed by **community boards**, to assure responsiveness to local needs.
5. **Follow performance and accountability requirements** regarding their administrative, clinical, and financial operations.

TODAY

Community Health Centers are the most comprehensive, wide-spread and effective primary care providers.
No patient is turned away.

14K Delivery Sites

1,487 Health Centers

31.5+M people served (1 in 11)

400K Veterans

1.3M Homeless People

8.6M Children

3.3M Elderly Patients

1 in 5 **uninsured**

1 in 5 **rural residents**

1 in 3 **people living in poverty**

Objectives

- Challenges to supporting data standardization and documentation of SDOH in EHRs
- Standards and opportunities for driving equity in primary care
- Our responsibility to patients and care teams in preventing moral injury and supporting workflow and access
- Using health equity data and addressing data quality
- Opportunities to accelerate our path forward

Current State: EHR Architecture

Epic Cerner

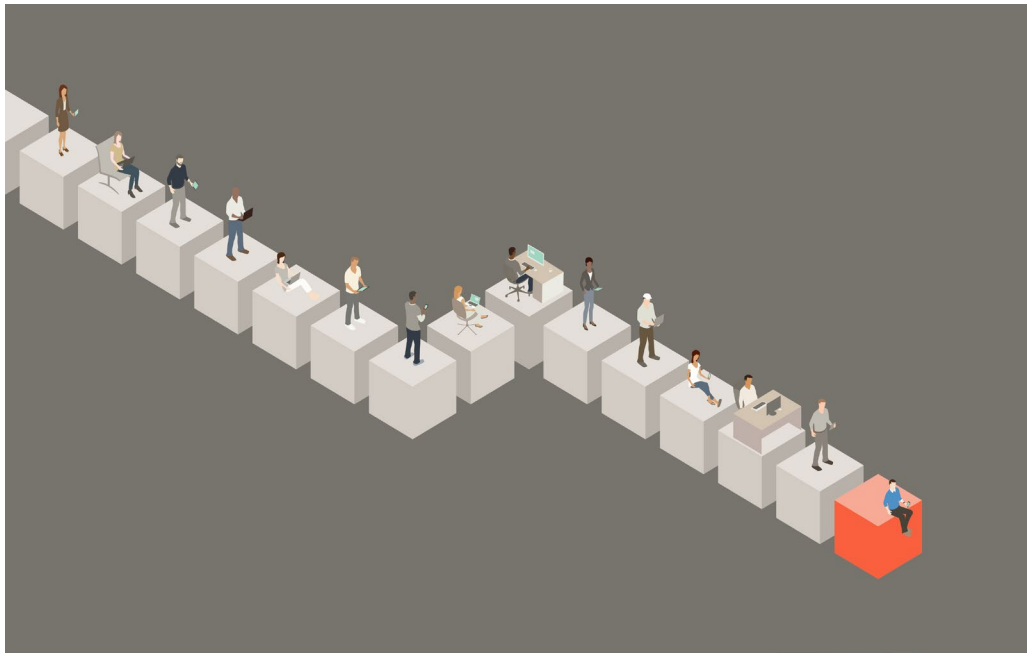
eClinicalWorks "Improving Healthcare Together" nextgen healthcare

Allscripts All possible athenahealth

1. Proprietary database schema
2. Proprietary models
3. Unique (closed-source) terminology represents clinical data
   - Data is not consistent
     - vendor to vendor
     - organization to organization within the same vendor
   - The meaning and use of these elements may be inconsistent

Challenges with EHR Extracted Data

- Limited validation of EHR
- Low data quality
- Missing data highly prevalent
- Variance in documentation: both the structure of the content, the location(s) in the record, and the extent to which data are hidden in free text
- Lack of harmonization in federal, state/city, payer, registry and local requirements are a barrier to success and lead to data inconsistency
- The typical EHR does not come with sophisticated dashboarding or data extraction tools
- Interoperability not realized in data reuse or write-to capability



“Negative” Test Results: SARS-CoV-2 Tests 2020

begative
covid not detected-done
mmc er
covid19 undetected
gative
n e g a t i v e
nagative
not-detected
nrgative
nw=egative
Undetectable
undetected
nasopharynx negative
nbegative
neagtive
neative
neg
neg
neg (rapid test)
negaitve
negaive
negatie
negatikve
negativ
negativce
negative
negative
negative - lurie
negative - uk
negative (abbott id)
negative (testing)
negative at u of c
negative covid-19
negative igg
negative rapid test
negative report
negative rna
negative(cvs redbluf
negativee
negativenegative
negative-pre-op clearance
negatives
negativew
negativie
negativre
negativve
negattive
negatve
negatvie
negatyive
negayive
negaytive
negitive
negtive
negtive
netative
no
no detected
no detected
non detected
none detected
nonreactive
non-reactive
nor detected
not detected
not dectected
not det
not deteced
not detected
not detected
not detected (grinnell ip)
not detected (mt er)
not detected rapid
not detected(mmc er)
not detected(immc ip)
not detected-(in hospital)
not detected.
not detected. (immc er)
not detectednot detected
not detectedq
not detected
not dtected

Non-mappable test results

Data entry error or PCR result?:

5
5.9
10.4
79
90
91
107
148
265
294
9/13/1945

Location:

covid detected(in hospital)
covid positive at rush
detected- in hospital
detected(er immc)
detected(in hospital)
detected-er visit
in-house testing

Lab code:

Ldtind
Ldtnot
meth1
meth1
meth3
meth3
pcrinh

Sample Site:

Nasal
nasal mid-turbinate
naso
naso swab in saline
nasopharyngeal
nasopharyngeal
nasopharyngeal (np)
nasopharyngeal swab
oropharyngeal

Notes:

sample was leaking upon receipt. integrity of sample is questionable.
see diasorin sars-cov-2 ab, igg...
we are unable to reliably determine a result for the specimen due to...

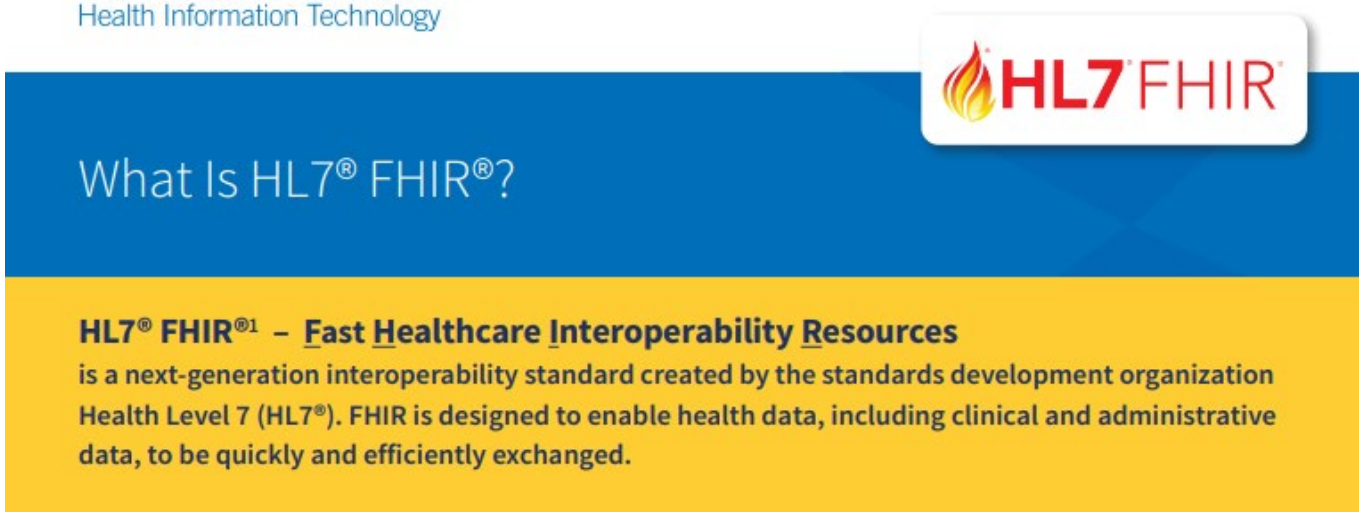
The time for FHIR is now:
Fast Healthcare Interoperability Resources

Designed for and excels at:

- **Ease of data extraction**
- **Exchange through API**
- **Use of services**
- **Easy for programmers to use,**
  - **even without health IT (HIT) expertise**
- **Open source (free to use)**
- **Required FHIR API available to certified products Dec 31, 2022**

HL7® FHIR®

The Office of the National Coordinator for Health Information Technology



USCDI Draft v5 Summary of Data Classes and Data Elements

Allergies and Intolerances
- Substance (Medication)
- Substance (Drug Class)
- Substance (Non-Medication)
- Reaction

Care Team Members
- Care Team Member Name
- Care Team Member Identifier
- Care Team Member Role
- Care Team Member Location
- Care Team Member Telecom

Clinical Notes
- Consultation Note
- Discharge Summary Note
- Emergency Department Note
- History & Physical
- Operative Note
- Procedure Note
- Progress Note

Clinical Tests
- Clinical Test
- Clinical Test Result/Report

Diagnostic Imaging
- Diagnostic Imaging Test
- Diagnostic Imaging Report

Encounter Information
- Encounter Type
- Encounter Identifier
- Encounter Diagnosis
- Encounter Time
- Encounter Location
- Encounter Disposition

Facility Information
- Facility Identifier
- Facility Type
- Facility Name

Goals and Preferences
- Patient Goals
- SDOH Goals
- Treatment Intervention Preference
- Care Experience Preference

Health Insurance Information
- Coverage Status
- Coverage Type
- Relationship to Subscriber
- Member Identifier
- Subscriber Identifier
- Group Identifier
- Payer Identifier

Health Status Assessments
- Health Concerns
- Functional Status
- Disability Status
- Mental/Cognitive Status
- Pregnancy Status
- Alcohol Use
- Substance Use
- Physical Activity
- SDOH Assessment
- Smoking Status

Immunizations
- Immunizations
- Lot Number

Laboratory
- Tests
- Values/Results
- Specimen Type
- Result Status
- Result Unit of Measure
- Result Reference Range
- Test Kit Unique Device Identifier
- Result Interpretation
- Specimen Source Site
- Specimen Identifier
- Specimen Condition Acceptability

Medical Devices
- Unique Device Identifier - Implantable

Medications
- Medications
- Dose
- Dose Unit of Measure
- Route
- Indication
- Fill Status
- Medication Instructions
- Medication Adherence

Observations
- Advance Directive Observation
- Sex Parameter for Clinical Use

Orders
- Orders

Patient Demographics/ Information
- First Name
- Last Name
- Middle Name (Including middle initial)
- Name Suffix
- Previous Name
- Name to Use
- Pronoun
- Date of Birth
- Date of Death

Patient Demographics /Information (cont)
- Race
- Ethnicity
- Tribal Affiliation
- Sex
- Sexual Orientation
- Gender Identity
- Preferred Language
- Interpreter Needed
- Current Address
- Previous Address
- Phone Number
- Phone Number Type
- Email Address
- Related Person's Name
- Relationship Type
- Occupation
- Occupation Industry

Patient Summary and Plan
- Assessment and Plan of Treatment

Problems
- Problems
- SDOH Problems/Health Concerns
- Date of Diagnosis
- Date of Resolution

Procedures
- Procedures
- Performance Time
- SDOH Interventions
- Reason for Referral

Provenance
- Author
- Author Role
- Author Time Stamp
- Author Organization

Vital Signs
- Systolic Blood Pressure
- Diastolic Blood Pressure
- Average Blood Pressure
- Heart Rate
- Respiratory Rate
- Body Temperature
- Body Height
- Body Weight
- Pulse Oximetry
- Inhaled Oxygen Concentration
- BMI Percentile (2 - 20 years)
- Weight-for-length Percentile (Birth - 24 Months)
- Head Occipital-frontal Circumference Percentile (Birth- 36 Months)

USCDI United States Core Data for Interoperability

United States Core Data for Interoperability

Draft Version 5 | January 2024

US Core Data for Interoperability (USCDI)

NATIONAL ASSOC
Community Heal

@NACHC

What is PRAPARE® ?

Protocol for **R**esponding to and **A**ssessing **P**atients' **A**ssets, **R**isks and **E**xperiences

A national **standardized** patient risk assessment **tool** designed to **engage patients** in assessing and addressing social drivers of health

Core	
1. Race*	10. Education
2. Ethnicity*	11. Employment
3. Veteran Status*	12. Material Security
4. Farmworker Status*	13. Social Isolation
5. English Proficiency*	14. Stress
6. Income*	15. Transportation
7. Insurance*	16. Housing Stability
8. Neighborhood*	
9. Housing Status*	

Optional	
1. Incarceration History	3. Domestic Violence
2. Safety	4. Refugee Status

Why use PRAPARE® to collect SDOH?

ACTIONABLE

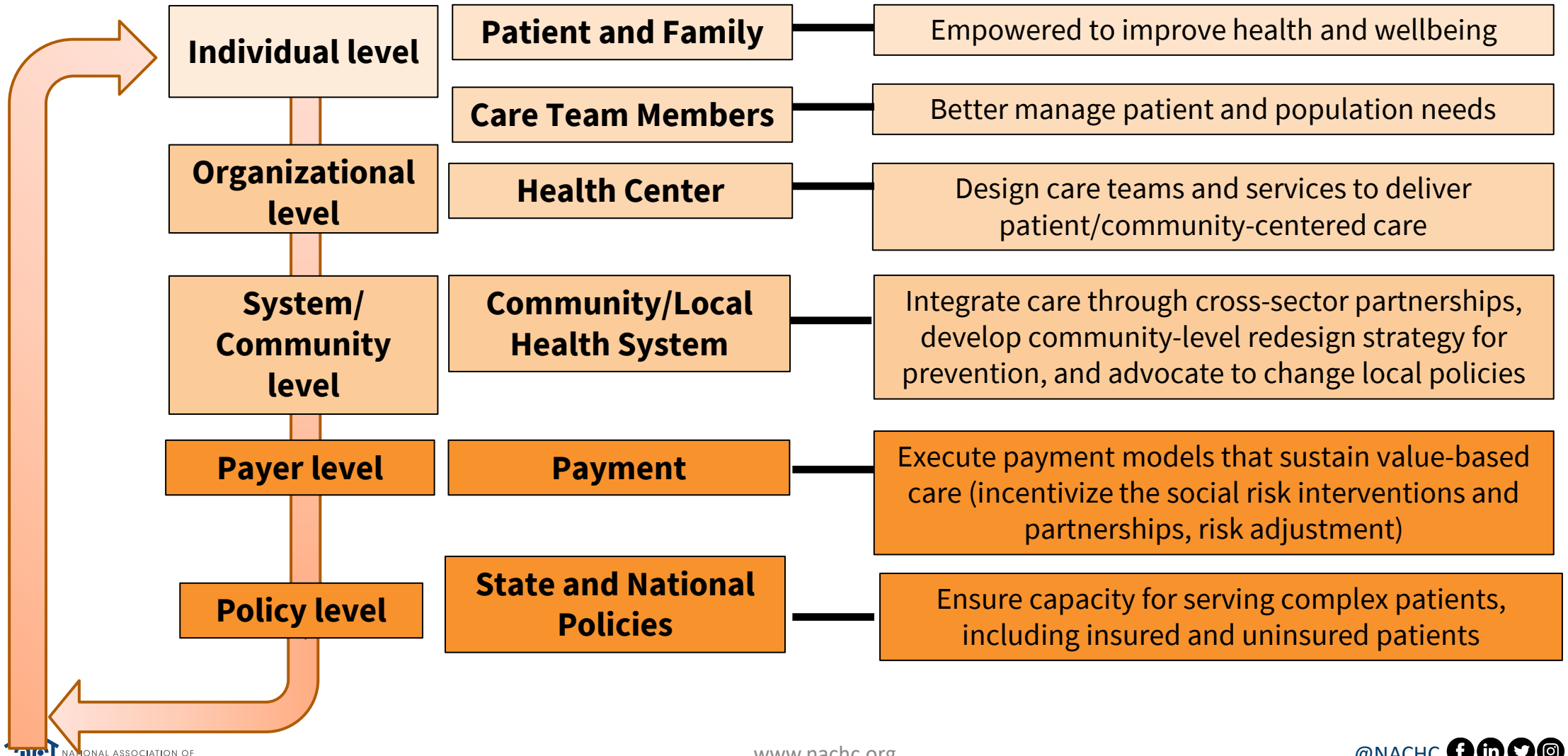
STANDARDIZED and WIDELY USED

EVIDENCE-BASED and STAKEHOLDER-DRIVEN

DESIGNED TO ACCELERATE SYSTEMIC CHANGE

PATIENT-CENTERED

Why Collect Standardized Data on SDOH?



Risk Stratification Positions Health Centers For Sustainability

- Alignment and accountability amongst health center, patients, partners, stakeholders, and funders
- More shifts towards value-based care and payment
- Greater demands for evidence of impact
- Targeted investments and resources for interventions and programs
- Growing competition

Health centers' unique model of care positions them to address the social needs and require tools to:

- ✓ Screen and stratify patients by social risks to address needs
- ✓ Document patient complexity and demonstrate value
- ✓ Build cross-sector partnerships to address social needs

Risk Stratification at Compass Community Health (Ohio)

Compass Community Health – Care Team Model	
Clinical director	Leads PRAPARE® Implementation
Providers and nurses	Understand PRAPARE® Tool, purpose, use, and impact of PRAPARE® data on outcomes
SBIRT Nurse	Completes PRAPARE® using motivational interviewing, serves as contact for providers and care coordinators on social needs
Care Coordinator and LISW	Leads patient follow-up and connecting patients to community resources
Outreach and Enrollment Specialist	Assist with development and maintenance of Community Resource Guide

"High risk": 7+ social needs

"Moderate risk": 4-6 social needs

"Low risk": 0-3 social needs

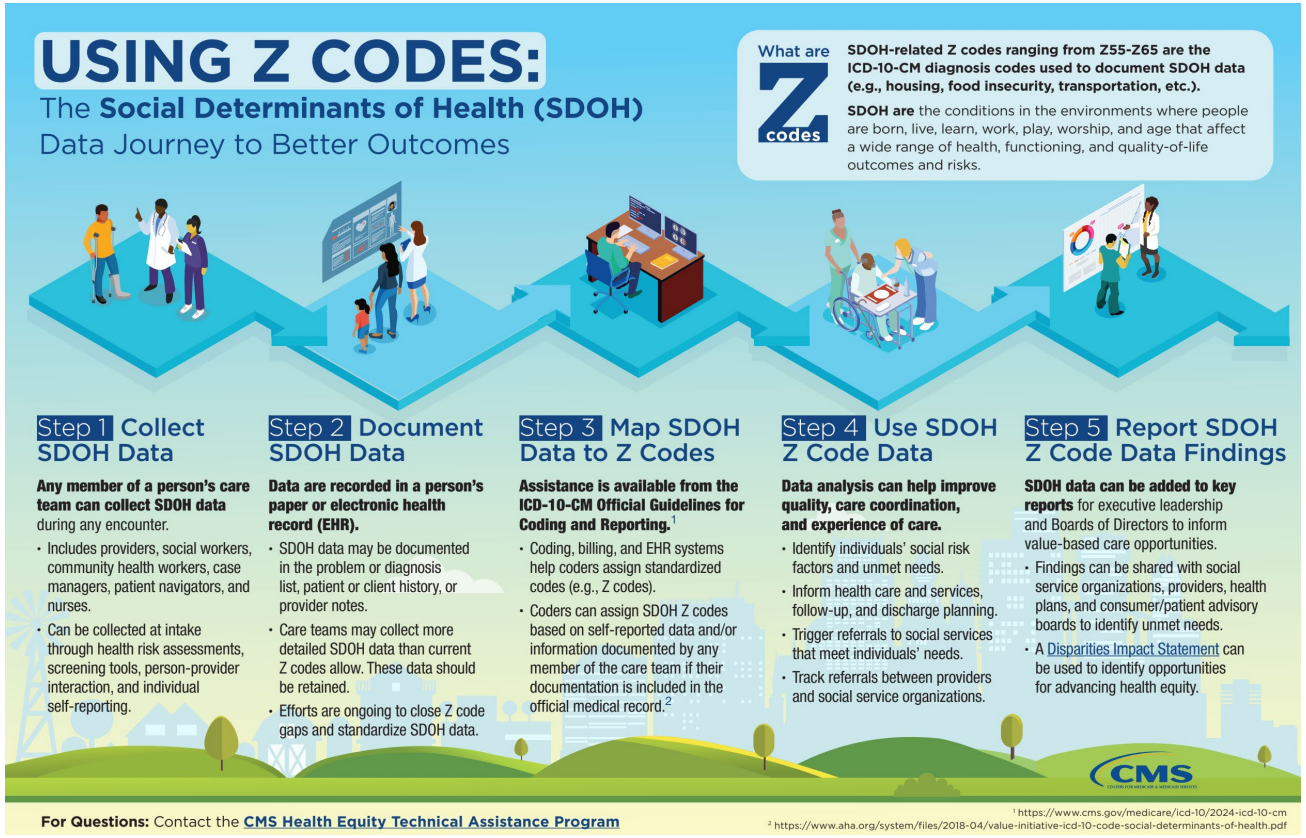
[Full Story about Compass Community Health]

Resources to Support SDOH Screening and Social Interventions

Billing opportunities for SDOH screening and social risk interventions will vary by payor and state.

New requirements for payment require changes to workflow and documentation of systems

Challenges with data extraction mean that it is easier to pull billing codes but that key data about needs may not be extractable



Health-related Social Needs Coding Alone Does not Address Social Needs

Social Interventions =

Non-clinical services that address non-medical, health-related social determinant of health needs

-Adapted from National Academies of Sciences, Engineering, and Medicine report, 2019

Scenario Excluding SDOH Screening

Medical History

Uncontrolled Diabetes
Missed Appointments
Poor Medication Adherence

Complaint	Diagnosis	Intervention	Follow Up	Investigation
Maria fell asleep at the stove and almost caused a fire	Sleep Apnea Hypertension Dangerously high blood sugar	Rx for hypertension CPAP Machine	Two weeks later- Maria is back with the same clinical presentation of symptoms	Care Team discovers she has not taken her medicine or using the CPAP machine because she cannot afford them

Medical History

Uncontrolled Diabetes
Missed Appointments
Poor Medication Adherence

Complaint

Maria fell asleep at the stove and almost caused a fire

Diagnosis

Sleep Apnea
Hypertension
Dangerously high blood sugar

Intervention

Hospitalized for blood sugar
Rx for hypertension
CPAP Machine

SDOH Investigation

Administer screening tool

Care Team discovers she has not taken her medicine or using the CPAP machine because she cannot afford them

Social Intervention

Assess eligibility and enroll Maria in public insurance
Provide referral- make appointment –arrange transportation to CBO for resources

Follow Up

Care Team member follows up with CBO to check on referral and assist Maria. She is monitored for treatment plan adherence and seen before the 2-week mark due to her high-risk profile

Value-based Care Means Leaving No Person Behind

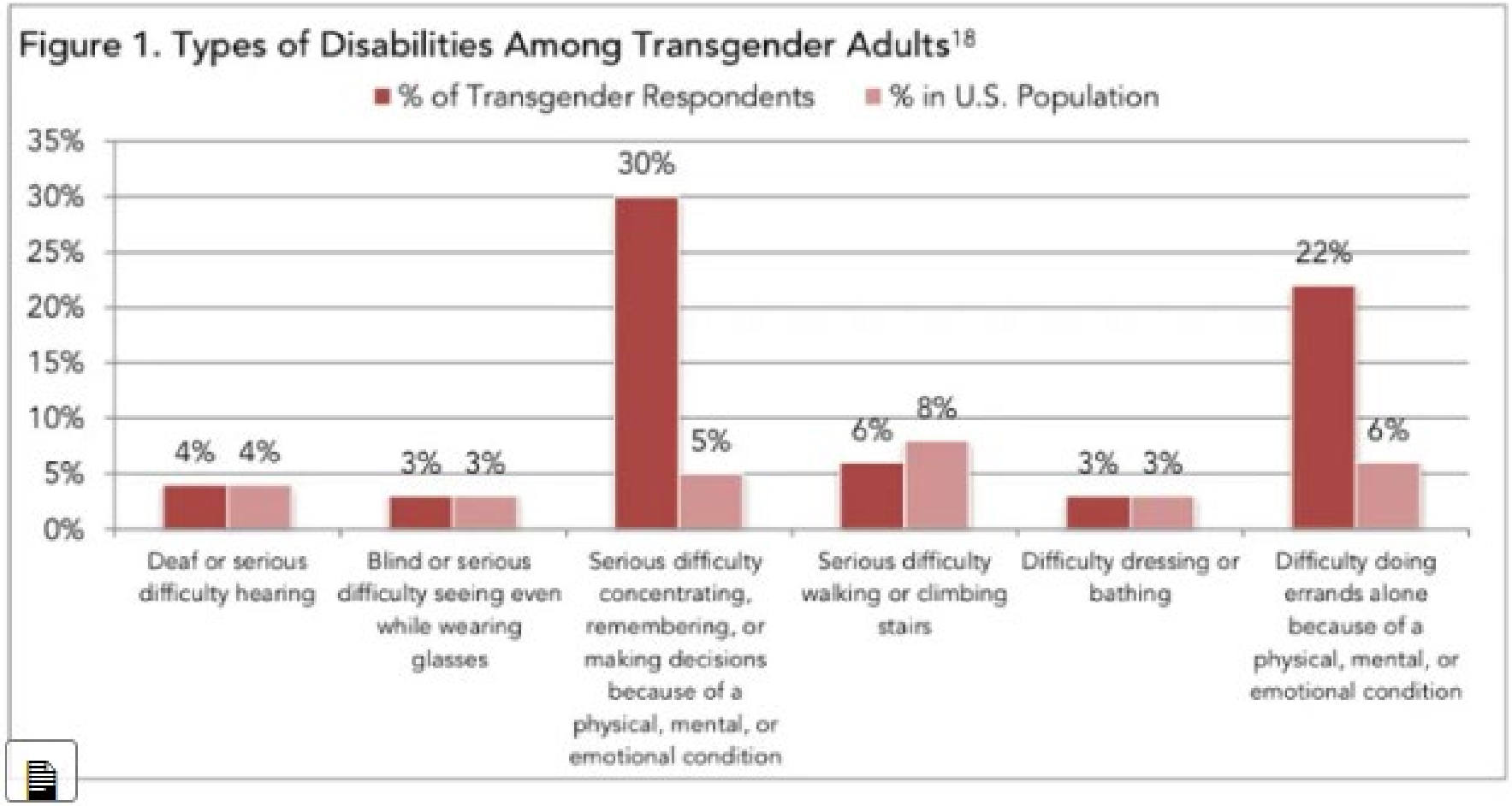
- This compels us to identify patients with social needs and challenges in attending and adhering to care requirements
- However, lack of follow up on unmet social needs causes moral injury to patients and care teams
- Fragmentation in our healthcare system makes unnecessary utilization higher and outcomes worse
- Lack of adequate resources is difficult to impossible to gauge without a concerted effort to track need and the extent to which services exist
- An equity first approach means proactive support for health centers and underserved populations

Dashboards Should Lead Our Way

You Can't Improve What You Can't See

- Panel management is a critical component of primary care and care coordination
- Most EHRs inadequately support panel management, closed referral loops and care gap closure
- Health equity and care gap dashboards should be part of KPIs and used on a continuous basis to drive care

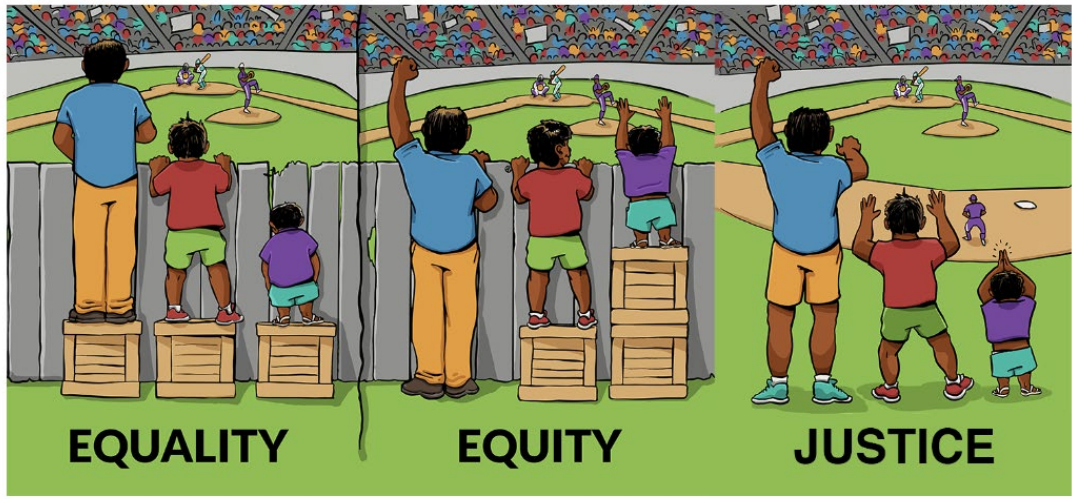
Intersectionality of SDOH and Disability



https://dredf.org/health-disparities-at-the-intersection-of-disability-and-gender-identity/#_ftn1

Health Equity Impact

- **Enhanced data tools** to promote alignment across health centers and community social service organizations
- **Less fragmented** social care system across sectors (More coordination and less duplication)
- **Awareness of services** provided to clients across sectors
- **Measurement of progress** toward dismantling racism & health equity
- **Understanding of needs, effort, & resources** to work upstream to address health equity
- **Collaboration across sectors** to proactively assess and address client social risks
- **Development of evidence-based models** for achieving equity



(Adaption of work by Interaction Institute for Social Change | Artist: Angus Maguire)

OPPORTUNITIES TO SUPPORT MEETING SOCIAL NEEDS

Standardization of data elements and templates

- All programs requesting SDOH data should be harmonized to a core set of requirements
- When variation is allowed, a normalization mapping should be provided

SDOH interoperability, reconciliation and follow up

- Data exchange offers the opportunity to create automated workflows to generate follow up actions
- AI can assist with data reconciliation at scale

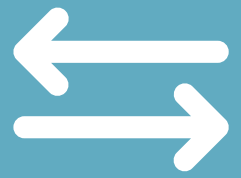
EHR support for care teams

- Regular evaluation and documentation SDOH/HSRNs should be part of the workflow
- These data should be integrated into templates or decision support for care teams to trigger action

Integration of patient-generated health data

- Patients can utilize apps to document their own needs and request services– this data should be integrated back to the EHR using APIs



THANK YOU!

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