

**Connecting Communities:** HIEs and Social Determinants of Health November 7, 2019

# **Agenda**

### Welcome

- Jennifer Covich Bordenick, CEO, eHealth Initiative

#### Presentation:

- Lizzy Feliciano, Vice President Marketing, LexisNexis Health Care
- Jordan Luke, Director, Program Alignment & Partner Engagement Group, Office of Minority Health (OMH), Centers for Medicare and Medicaid Services (CMS)
- Chris Hobson, MD, Chief Medical Officer, Orion Health

## Q&A

Jennifer Covich Bordenick, CEO, eHealth Initiative

# Housekeeping

- All participants are muted
- To ask a question to be answered by speakers:
  - Use the "Q&A" box found on the bottom of your screen
  - We will address as many as possible after the presentations
- For help with technical difficulties and nonspeaker questions:
  - Use the "chat" box and we will respond as soon as possible
- Slides and a recording of today's presentation will be available for download on eHI's Resource page: www.ehidc.org/resources







# **Our Mission**

Convening executives from every stakeholder group in healthcare to discuss, identify and share best practices to transform the delivery of healthcare using technology and innovation.





# **Our Members**









































































































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# **Current Areas of Focus**

Value Based Care

Cost Transparency

Prior Authorization Interoperability

Understanding FHIR/ APIs/DaVinci

Policy Issues/Burden, Workflow, Info Blocking Privacy/Security

Protection Vs Access

HIPAA Part 2

Cybersecurity Med Devices Analytics/SDOH

Non-Traditional Sources of Data for Health (SDOH, PGHD)

EHR data for clinical trials (Doublejump)

# eHealth Resource Center www.ehidc.org/resources

- eHealth Resource Center available with best practices & findings identifying and disseminating best practices
- Online Resource Center: Over 600 new pieces of content, 125 best practices added this year





# This webinar was made possible through the generosity and support of





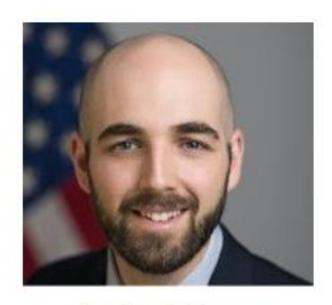
## **SPEAKERS**



Lizzy Feliciano
Vice President, Marketing
LexisNexis Health Care



Chris Hobson, MD
Chief Medical Officer
Orion Health



Jordan Luke
Director, Program Alignment &
Partner Engagement Group, CMS

OMH





**VP, Market Insights**LexisNexis Risk Solutions
Health Care



#### Social Determinants of Health made headlines in 2019

#### Why We Should Talk More About Social Care<sup>1</sup>

When the social conditions of people improve, their health does, too.

#### **Social Determinants Screenings Cut Hospital Admissions by Nearly 30%**<sup>2</sup>

Medicaid members who receive community-based services, particularly those that emphasize screening for and addressing the social determinants of health, experienced a 26.3 percent drop in inpatient hospital admission rates.

#### **Employing Social Workers to Address Social Determinants of Health<sup>4</sup>**

Many health plans previously saw addressing social determinants of health as something outside of their wheelhouse. More recently, payers are recognizing the importance of addressing these factors to better the health of their members.

#### MVP, Alliance Invest \$800K to Address Social Determinants of Health<sup>5</sup>

The evidence is really irrefutable at this point that to improve someone's health, you have to look at more than just health.

## **Social Determinants Accelerator Act of 2019**

- 1 https://www.forbes.com/sites/williamhaseltine/2019/10/25/why-we-should-talk-more-about-social-care/#5a0459d14a57
- $2\ https://healthitanalytics.com/news/social-determinants-screenings-cut-hospital-admissions-by-nearly-30$
- 3 https://healthitanalytics.com/news/5-ways-to-ethically-use-social-determinants-of-health-data
- $4\ \underline{\text{https://healthpayerintelligence.com/news/employing-social-workers-to-address-social-determinants-of-health}$
- 5 https://www.timesunion.com/news/article/MVP-Alliance-invest-800K-to-address-social-14282297.php



#### The Social Determinants of Health Accelerator Bill of 2019

#### **Key Findings**

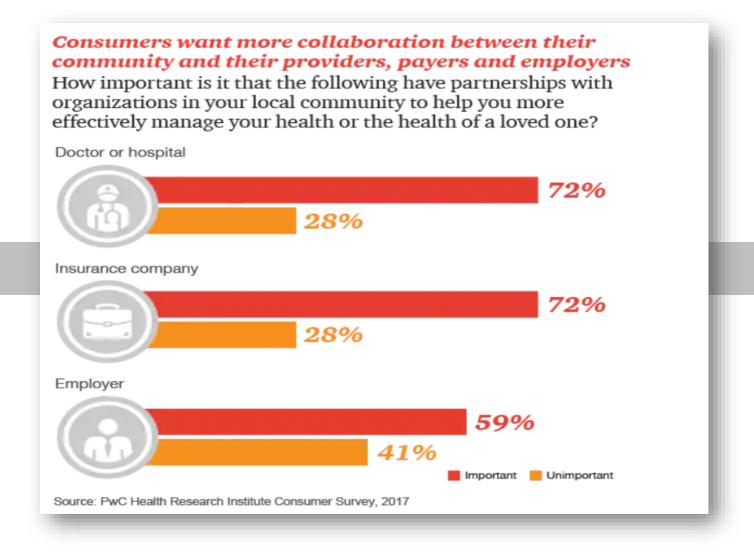
- There is evidence showing that economic and social conditions have a powerful impact on individual and population health outcomes and costs.
- State, local, and Tribal governments and the service delivery partners face significant challenges in coordinating benefits and services delivered through the Medicaid program and other social services programs.
- The Federal Government should prioritize and proactively assist State and local governments to improve health and social outcomes for individuals.

#### **Purpose**

- 1. Establish effective, coordinated Federal technical assistance to help State and local governments to improve outcomes and cost-effectiveness of, and return on investment from, health and social services programs.
- 2. To build a pipeline of State and locally designed, cross-sector interventions and strategies that generate rigorous evidence about how to improve health and social outcomes, and increase the cost-effectiveness of, and return on investment from, Federal, State, local, and Tribal health and social services programs.
- 3. To enlist State and local governments and the service providers of such governments as partners in identifying Federal statutory, regulatory, and administrative challenges in improving the health and social outcomes of, cost-effectiveness of, and return on investment from, Federal spending on individuals enrolled in Medicaid.
- 4. To develop strategies to improve health and social outcomes without denying services to, or restricting the eligibility of, vulnerable populations.



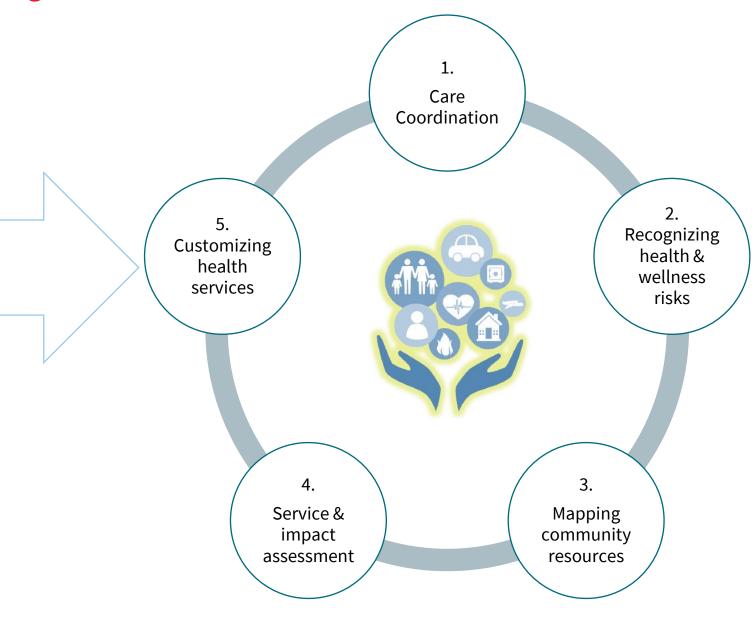
## Patients see value in addressing SDOH...even if they don't realize it





## Addressing the elephant in the room – guidelines for the ETHICAL use of SDOH data

American Health Information Management Association (AHIMA) America's Health Insurance Plans (AHIP) Allscripts Amazon Web Services (AWS) American Cancer Society American College of Cardiology American College of Physicians American College of Radiology athenahealth BDO Care Compass Network CareSource Cerner Change Healthcare CHRISTUS Health Cognizant CRISP Health Initiative EHNAC Epstein Becker & Green George Washington University—Milken Institute School of Public Health Google Cloud HealthCore HL7® International Hogan Lovells Inovalon InterSystems Johnson Johnson LexisNexis Health Care LifeWIRE Manatt Health Marshfield Clinic Mayo Clinic Med Allies Medical Group Management Association (MGMA) National Alliance of Healthcare Purchaser Coalitions NextGen Healthcare Noridian Healthcare Solutions Ohio Health Orion Health Point-of-Care Partners PwC Providence St. Joseph Health Salesforce Solera Health Sonora Quest Laboratories Strategic Interests University of Chicago Medicine Updox Validic





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## The logic behind optimizing SDOH data



Improved predictive accuracy over traditional demographic models



Clinically validated against health outcomes



**Linked to individuals** 



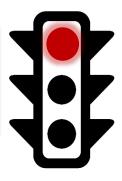


## The evolution of SDOH approaches



**1st Generation** 

- Effort: County or zip code level "community" insights
- Problem: Wide variance in social factors at the community level





- Effort: Patient-level data not specifically designed for healthcare from nonclinical vendors
- **Problem:** Data dumps that typically address only one category of SDOH, frequently with little correlation to health risk





A source of data that addresses multiple categories of SDOH and can deliver increased lift over existing models while decreasing time to value





## SDOH categories that correlate to outcomes

Social and Community Context

Accidents, Crimes,
Weapons &
Sporting Licenses,
Voter Registration,
Relatives/Associates



Economic Stability

Address Stability,
Assets, Income,
Professional Licenses,
Liens, Bankruptcies

Neighborhood and Built Environment

Household
Demographics,
Housing Types,
Crime and
Income Indexes

Education

Level, Quality, Area of Study



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## Delivering success with next generation SDOH

#### **Data sources**

- Multiple sources covering public records, credit and consumer data that can paint a comprehensive picture
- Data elements that cover all 5 categories of SDOH data
- Economic stability, Education, Health & Healthcare, Neighborhood and Built Environment, Social & Community Context

#### Member-level detail

- Each data element should be tied to the individual
- Every matched individual should come with associations, such as family, relatives and close associates

### **Correlation to health risk**

- No data dumps
- Every element should already be proven to correlate to health risk
- Clients can reverse 80/20 rule on data prep/modeling



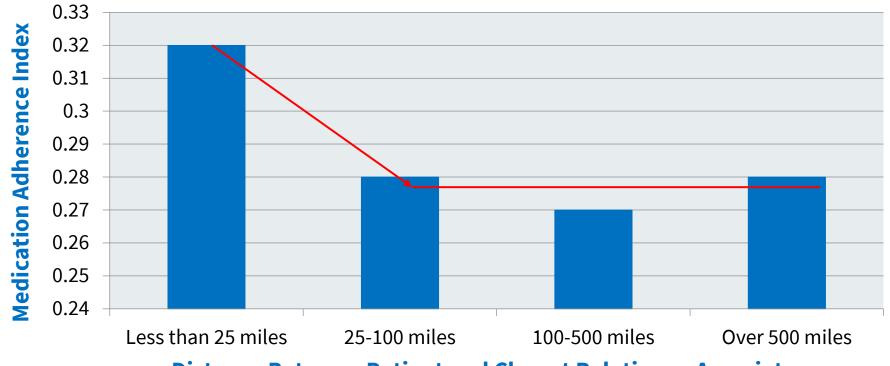






## Social isolation example

#### Distance to nearest relative correlation with medication adherence

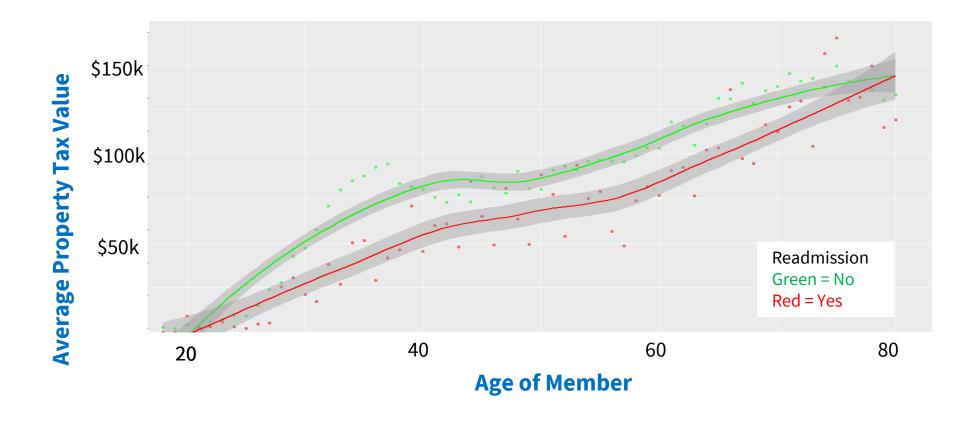


**Distance Between Patient and Closest Relative or Associate** 



## Economic health example

### Owned property value correlation with readmission to the hospital





## How can ACOs harness the power of social determinants of health?

#### **ACO Commonality:**

- ✓ Need to adapt in a new era of downside
- √ financial risk.
- ✓ Need to move beyond generating shared
- ✓ savings—to also about avoiding financial loss
- ✓ Expanding access to care

#### **Typical Data Leveraged:**

- ✓ Health risk assessments
- ✓ Basic demographic information
- ✓ Survey results
- ✓ Other data within the
- **✓** EHR

#### **Challenges with this data:**

- ✓ Demographic data becomes outdated quickly
- ✓ EHR data stored in unstructured format
- ✓ Survey data is not comprehensive



## SDOH data gives providers a well-rounded view of a patient

#### Situation 1:

- 1. An ACO notices an uptick in spending for patients with heart disease.
- 2. SDOH data (e.g., relatives, associates and zip code) helps the ACO identify patients who may be socially isolated.
- 3. So it can proactively connect these individuals with community resources to provide social support.

#### **Situation 2:**

- 1. An ACO sees an increase in its ED visits for diabetic patients.
- 2. SDOH data (e.g., income and education level)
  helps the ACO identify patients who may benefit from care coordinators who provide ongoing education and support to ensure these individuals take their insulin properly.

#### Situation 3:

- 1. An ACO decides to target obesity in an effort to improve health outcomes.
- 2. SDOH data (e.g., income, crime index and address) helps the ACO identify patients who may benefit from nutritional counseling and access to healthy food options.



## Ways to integrate socioeconomic data into new or existing clinical analytic models



#### **Attributes**



- Can be combined in clinical analytics models to better assess risk for patients with and without clinical or claims data
- Correlate to specific health outcomes including total cost, hospitalizations, Rx costs, medication adherence, emergency room visits, stress and motivation to care for one's own health



#### Scores

Health risk prediction scores provided at the patient level that leverage ONLY socioeconomic attributes to provide a picture of future risk:

- Total Cost Risk Score: Predicts an individual's health risk over the next 12 months based on cost
- Readmission Risk Score: Predicts potential for an individual to be readmitted to the hospital in the next 30 days



#### **Contact Information**

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- Twitter.com/lexisnexisrisk





# Addressing Social Determinants of Health in CMS Programs & Policies



# **CMS OMH Mission and Vision**

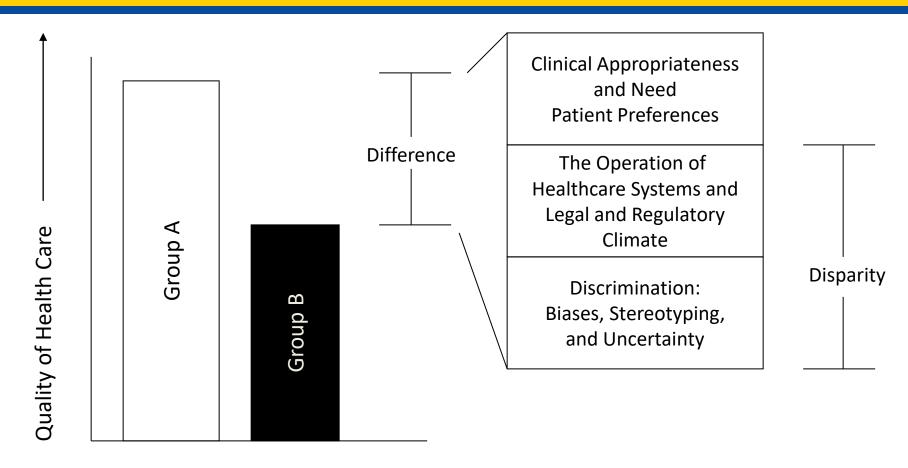
### **Mission**

To ensure that the voices and the needs of the populations we represent (racial and ethnic minorities, sexual and gender minorities, rural populations, and people with disabilities) are present as the Agency is developing, implementing, and evaluating its programs and policies.

## **Vision**

All CMS beneficiaries have achieved their highest level of health, and disparities in health care quality and access have been eliminated.

# What is a Health Care Disparity?



SOURCE: Figure 1. Differences, Disparities, and Discrimination: Populations with Equal Access to Healthcare. *Unequal Treatment: Confronting Racial and Ethnic Disparities in Healthcare, Summary*. Brian Smedley, Adrianne Stith, and Alan Nelson, Eds. Washington, DC. Institute of Medicine, 2002.

# **CMS Path to Equity**

Increasing understanding and awareness of disparities

Developing and disseminating solutions

Implementing sustainable actions

# **Sources of Health Disparities**



# What Are Z Codes?

- Z-Codes are a subset of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) codes.
- The full set of Z codes (Z00-Z99) cover an expansive set of "reasons" for health care encounters, ranging from contact with infections, inoculations and vaccinations, patient history, follow up care, reproductive services, and many others. ICD-10-CM Official Guidelines for Coding and Reporting FY 2019.

https://www.cms.gov/Medicare/Coding/ICD10/Downloads/2019-ICD10-Coding-Guidelines-.pdf

Apply to all health care settings.

# **Z Codes Related to Social Determinants of Health**

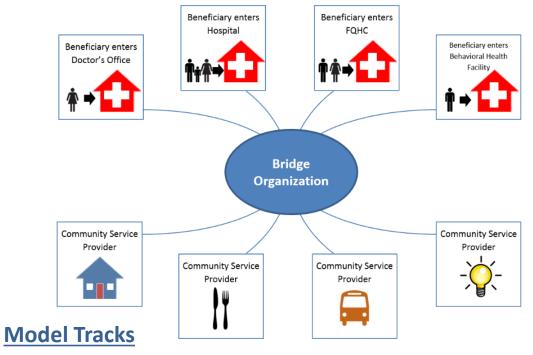
- Within the Z code set, Z55-65 are used to identify individuals with potential hazards related to **socioeconomic and psychosocial circumstances**, capturing information on social determinants of health (SDOH).
- There are 9 categories of Z codes related to SDOH, each code includes sub-codes resulting in a total of 97 more granular codes

ICD-10	Description	Number of Sub-Codes
<b>Z55</b>	Problems related to education and literacy	7
<b>Z56</b>	Problems related to employment and unemployment	12
<b>Z57</b>	Occupational exposure to risk factors	12
<b>Z59</b>	Problems related to housing and economic circumstances	10
<b>Z60</b>	Problems related to social environment	7
<b>Z62</b>	Problems related to upbringing	24
<b>Z63</b>	Other problems related to primary support group, including family circumstances	14
Z64	Problems related to certain psychosocial circumstances	3
	. ,	
<b>Z65</b>	Problems related to other psychosocial circumstances	8

# **Accountable Health Communities (AHC)**

#### **Key Innovations**

- Systematic screening of all Medicare and Medicaid beneficiaries to identify unmet health-related social needs
- Tests the effectiveness of referrals and community services navigation on total cost of care using a rigorous mixed method evaluative approach
- Partner alignment at the community level and implementation of a communitywide quality improvement approach to address beneficiary needs



#### **Assistance Track**

 Bridge Organizations in this track provide community service navigation services to assist high-risk beneficiaries with accessing services to address health-related social needs

#### **Alignment Track**

 Bridge Organizations in this track encourage partner alignment to ensure that community services are available and responsive to the needs of beneficiaries

# **SDOH Domains & Indicators**

Accountable Health Communities	National Academy of Medicine		Healthy People 2020	
Disabilities (Optional)	Acculturation	Sexual Orientation	Access to Foods that Support Healthy Eating	Housing Instability
Education (Optional)	Dual Eligibility	Social Support	Access to Health Care	Incarceration
Employment (Optional)	Education	Urbanicity/Rurality	Access to Primary Care	Language and Literacy
Family and Community Support (Optional)	Gender Identity	Wealth	Civic Participation	Poverty
Financial Strain (Optional)	Housing		Crime and Violence	Quality of Housing
Food Insecurity	Income		Discrimination	Social Cohesion
Housing Instability	Language		Early Childhood Education and Development	
Interpersonal Safety	Living Alone		Employment	
Mental Health (Optional)	Marital/Partnership Status		Enrollment in Higher Education	
Physical Activity (Optional)	Nativity		<b>Environmental Conditions</b>	
Substance Use (Optional)	Neighborhood Deprivation		Food Insecurity	
Transportation	Environmental Measures		Health Literacy	
Utilities	Race and Ethnicity		High School Graduation	

# **SDOH Domains & Indicators**

ICD-10©	Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences (PRAPARE©)	Health Leads©
Childhood	Access to Health Care	Behavioral/Mental Health
Education	Child Care	Childcare
Employment	Clothing	Education
Housing	Education	Employment
Income	Employment	Food Insecurity
Literacy	Family Living Situation	Health Behaviors
Occupational Exposure	Food Insecurity	Housing Instability
Other Psychosocial Needs	Health Insurance	Immigration Status
Psychosocial Needs	Housing Instability	Income
Social Environment	Incarceration History (optional)	Language
Social Support	Income	Race and Ethnicity
	Interpersonal Safety (optional)	Social Support and Social Isolation
	Language	Transportation
	Migrant and/or Seasonal Worker	Utilities
	Race and Ethnicity	Violence
	Refugee (optional)	
	Safe Environment (optional)	
	Social Support/Social Isolation	
	Stress	
	Transportation	
	Utilities (including phone)	
	Veteran Status	

# **Embedding SDOH into Data Elements through**IMPACT Act

#### **IMPACT Act of 2014 requires CMS to:**

- Collect standardized data elements for use in the post-acute care (PAC) Prospective Payment System; and
- Assess appropriate adjustments to quality measures, resource measures, and other measures, and to assess and implement appropriate adjustments to payments.

#### **Stakeholder Feedback (December 2018):**

- Prioritize data elements under consideration;
- Customize assessment tools by local needs;
- Allow patients to self-identify;
- Broaden beyond medical care; and
- Provide best practices for question design.

# Why Collect Standardized Patient Assessment Data Elements for SDOH?

- Facilitates coordinated care and care planning based on a broader view of the patient's circumstances;
- Improves quality of care & outcomes for beneficiaries by considering a larger set of factors affecting health;
- Provides data for analysis of disparities, development of equity solutions, improved measures, and more appropriate payment.

## Post-Acute Care Prospective Payment System Regulation Revisions

- Finalized Rulemaking for four sites of post-acute care (2019):
  - IRF: Inpatient Rehabilitation Facility
  - SNF: Skilled Nursing Facility
  - LTCH: Long Term Care Hospital
  - HH: Home Health
- CMS added SDOH Standardized Patient Assessment Data Elements (SPADE)
  - Race and Ethnicity
  - Preferred Language/Interpreter Services
  - Health Literacy
  - Transportation
  - Social Isolation

### **Proposed Data Elements**

- (1) Race
  - 2011 HHS Data Standards
- (2) Ethnicity
  - 2011 HHS Data Standards
- (3) Preferred Language and Interpreter Services
  - LTCH [Long Term Care Hospital] CARE [Continuity Assessment Record and Evaluation] Data Set (LCDS) and the Minimum Data Set (MDS)
- (4) Health Literacy
  - based on Single Item Literacy Screener (SILS)
- (6) Transportation
  - Patient-Reported Outcomes Measurement Information System (PROMIS) and the Accountable Health Communities (AHC)
- (7) Social Isolation
  - PROMIS and AHC

### **Providing Language Services**

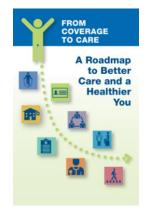
Guide to Developing a Language Access
 Plan

- Conducting a needs assessment
- Offering language services
- Notices
- Training
- Evaluation
- Lessons From the Field
  - Data collection and Electronic Health Records
  - Streamlining processes
  - Including interpreters on rounds



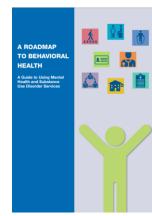
### From Coverage to Care

- Roadmap to Better Care and a Healthier You
- 5 Ways to Make the Most of Your Health Coverage
- Roadmap to Behavioral Health
- Manage Your Health Care Costs
- Enrollment Toolkit
- Prevention Resources
- Partner Toolkit and Community
   Presentation









go.cms.gov/c2c CoverageToCare@cms.hhs.gov

# 2019 CMS Health Equity Award Winner: Centene Corporation

• Centene partnered with the National Council on Independent Living (NCIL) to increase the percentage of providers that meet disability access standards. 36,000 of Centene's members now have improved access to their providers.

• CMS is accepting nominations for the 2020 CMS Health Equity Award (10/9-11/15).

### **Health Equity Technical Assistance**



Identify disparities, plan initiatives, and set SMART aims.



ACT
Implement targeted

interventions to reduce health disparities.



Evaluate and improve your plan to reduce disparities.

HealthEquityTA@cms.hhs.gov



#### **Contact Us**

Jordan Luke Director, CMS OMH,
Program Alignment and Partner Engagement

**Health Equity Technical Assistance:** 

HealthEquityTA@cms.hhs.gov.

**CMS OMH Homepage:** 

go.cms.gov/omh



### **Appendix**

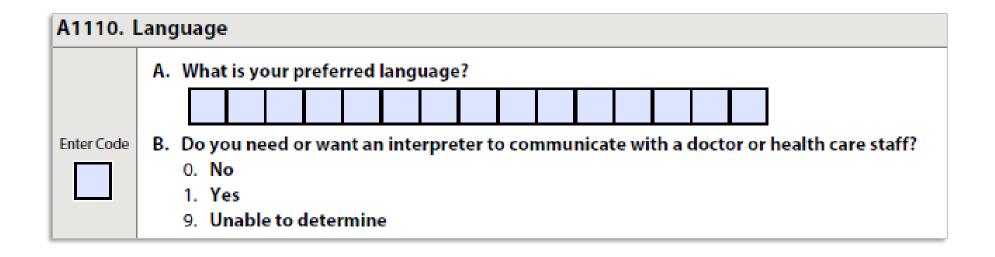
SDOH data elements used in Post Acute Care rulemaking

## SDOH in the Rules: Race and Ethnicity

A1010. Race What is your race?				
↓ Check all that apply				
	A. White			
	B. Black or African American			
	C. American Indian or Alaska Native			
	D. Asian Indian			
	E. Chinese			
	F. Filipino			
	G. Japanese			
	H. Korean			
	I. Vietnamese			
	J. Other Asian			
	K. Native Hawaiian			
	L. Guamanian or Chamorro			
	M. Samoan			
	N. Other Pacific Islander			
	X. Patient unable to respond			

A1005. Ethnicity Are you of Hispanic, Latino/a, or Spanish origin?				
↓ Check all that apply				
	A. No, not of Hispanic, Latino/a, or Spanish origin			
	B. Yes, Mexican, Mexican American, Chicano/a			
	C. Yes, Puerto Rican			
	D. Yes, Cuban			
	E. Yes, another Hispanic, Latino, or Spanish origin			
	X. Patient unable to respond			

## SDOH in the Rules: Preferred Language & Interpreter Services



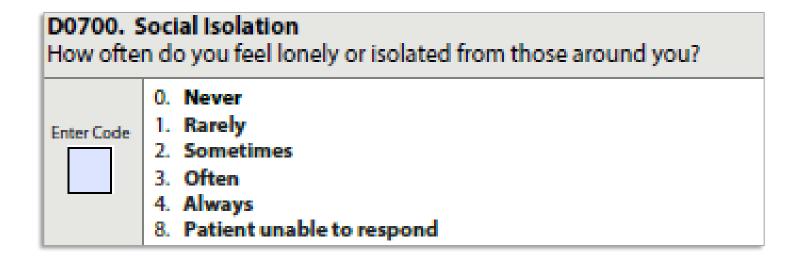
## SDOH in the Rules: Health Literacy

B1300. Health Literacy  How often do you need to have someone help you when you read instructions, pamphlets, or other written material from your doctor or pharmacy?		
Enter Code 1. Rarely 2. Sometimes 3. Often 4. Always 8. Patient unable to respond		

## SDOH in the Rules: Transportation

A1250. Transportation  Has lack of transportation kept you from medical appointments, meetings, work, or from getting things needed for daily living?		
↓ Check all that apply		
		A. Yes, it has kept me from medical appointments or from getting my medications
		B. Yes, it has kept me from non-medical meetings, appointments, work, or from getting things that I need
		C. No
		X. Patient unable to respond

## SDOH in the Rules: Social Isolation



## Social Determinants of Health and HIEs Dr Chris Hobson, Orion Health



November 7<sup>th</sup> 2019



#### **SDOH and HIE - Summary**

- Privacy and security of sensitive data, managing patient consent
- Sourcing relevant data
- Normalizing standardizing, mapping and exchanging data
- Combining clinical and SDOH data around specific uses is best practice
- FHIR profiles and resources
- Data Governance

#### Challenges

- A new, evolving clinical domain, brings both new and familiar challenges
- Privacy in relation to sensitive data,
- Legal requirements with respect to financial data, the Gramm-Leach-Bliley Act
- Clinicians vs data brokers
- Integrating data so it doesn't have to be captured repeatedly
- Informatics mapping data standards for interoperability and understanding

#### Challenges

- Multitude of SDoH assessment tools and terminologies to capture relevant data
  - Legacy data stored in multiple proprietary formats
- Lack of agreed standards for data exchange
- Risks of too much low value data every data element needs to be assessed
- Senior management support, including funding

#### **Solutions**

- Consent register with patient portal access to the data
- Role based and attribute based access controls
- Informatics vision: collect once, use many
- Capturing structured data -
  - ICD 10 CM Z codes between Z55 and Z65, eg
    - Z59.0 Homelessness
    - Z59.1 Inadequate housing
- Every use case must be rigorously evaluated:
  - Care coordination / care transition management
  - Does SDOH help in understanding high risk pregnancy?
- Align with emerging FHIR standards

- ICD 10 Z codes for SDOH "Diagnoses"
  - Z59.6 Low Income
    - Proposed new Code Z59.61 Unable to pay for prescriptions
    - Proposed New Code Z59.62 Unable to pay for utilities
    - Proposed New Code Z59.63 Unable to pay for medical care
- **LOINC codes** for SDOH Assessments:
  - 76513-1 How hard is it for you to pay for the very basics like food, housing, medical care and heating?
- Snomed codes
  - 11403006 | Financially poor (finding) |
  - 9629004 | Borderline poverty (economic status)

Data coding improvements



#### FHIR - Gravity Project4

- Develop semantically consistent FHIR profiles, resources and implementation guides
- Ensure the clinical relevance of terminology value sets and information models, and
- Vet information structures and analytic tools for bias
- Industry collaborators to pilot SDoH FHIR profiles in real-world settings
- Conduct research on the efficacy of their use

#### **Data Governance**



- Protecting patient rights, protecting clinicians and organizations
- HIEs should have well established data governance processes and decision - making committees
  - SDOH then becomes just another data type
  - Agreed consent process
  - Who will collect the data? / Where does it originate?
  - Data dictionary / exactly what data do we want to capture /
     Can we get it in structured format?
  - Access controls
  - How do we handle financial data (with legal restrictions)
  - Fit to clinician workflow?
  - If used for predictive modelling / AI can the clinician trust the recommendation?

#### Open Q&A



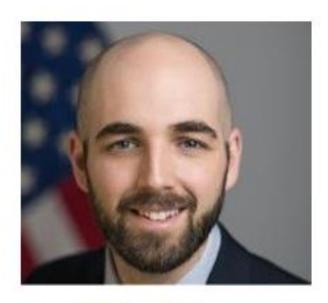
#### Q&Q



Lizzy Feliciano
Vice President, Marketing
LexisNexis Health Care



Chris Hobson, MD
Chief Medical Officer
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Director, Program Alignment &
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