MISSOURI HOSPITAL ASSOCIATION

The Role of Population Health in Changing Times

Stephen Njenga, Director of Performance Measurement Compliance

August 25, 2020

This program is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling $510,424 with zero percentage financed with non-governmental sources through a contract between the Missouri Hospital Association (MHA) and the Missouri Department of Health and Senior Services, Office of Rural Health and Primary Care (DHSS ORHPC). The contents are those of the authors and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS, the U.S. Government, MHA or DHSS ORHPC.

Pre-survey — Poll Question 1

- I fully understand how population health impacts cost and delivery of care. *(Use the scale of 1-5 below)*
  - 5 – Strongly agree
  - 4 – Agree
  - 3 – Neutral
  - 2 – Disagree
  - 1 – Strongly disagree

Pre-survey — Poll Question 2

- I fully understand the impact of social determinants of health on health outcomes and cost of care. *(Use the scale of 1-5 below)*
  - 5 – Strongly agree
  - 4 – Agree
  - 3 – Neutral
  - 2 – Disagree
  - 1 – Strongly disagree

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IRS provides additional relief for tax-exempt hospitals: Deadline for completing certain needs assessment requirements moved to Dec. 31

Notice 2020-56 (PDF) extends the deadline for conducting a CHNA and adopting an implementation strategy to meet the community health needs identified through the CHNA to December 31, 2020.

Forces Behind the Changing Landscape

Evolving payment models	Advancement in science of medicine
Technology is changing	Partners and collaborators
Data availability and use	Consumerism
Rapidly changing policies	Engagement and behavior change
Competition	Population health
Utilization patterns are changing over time	Quality and price transparency

Food for Thought

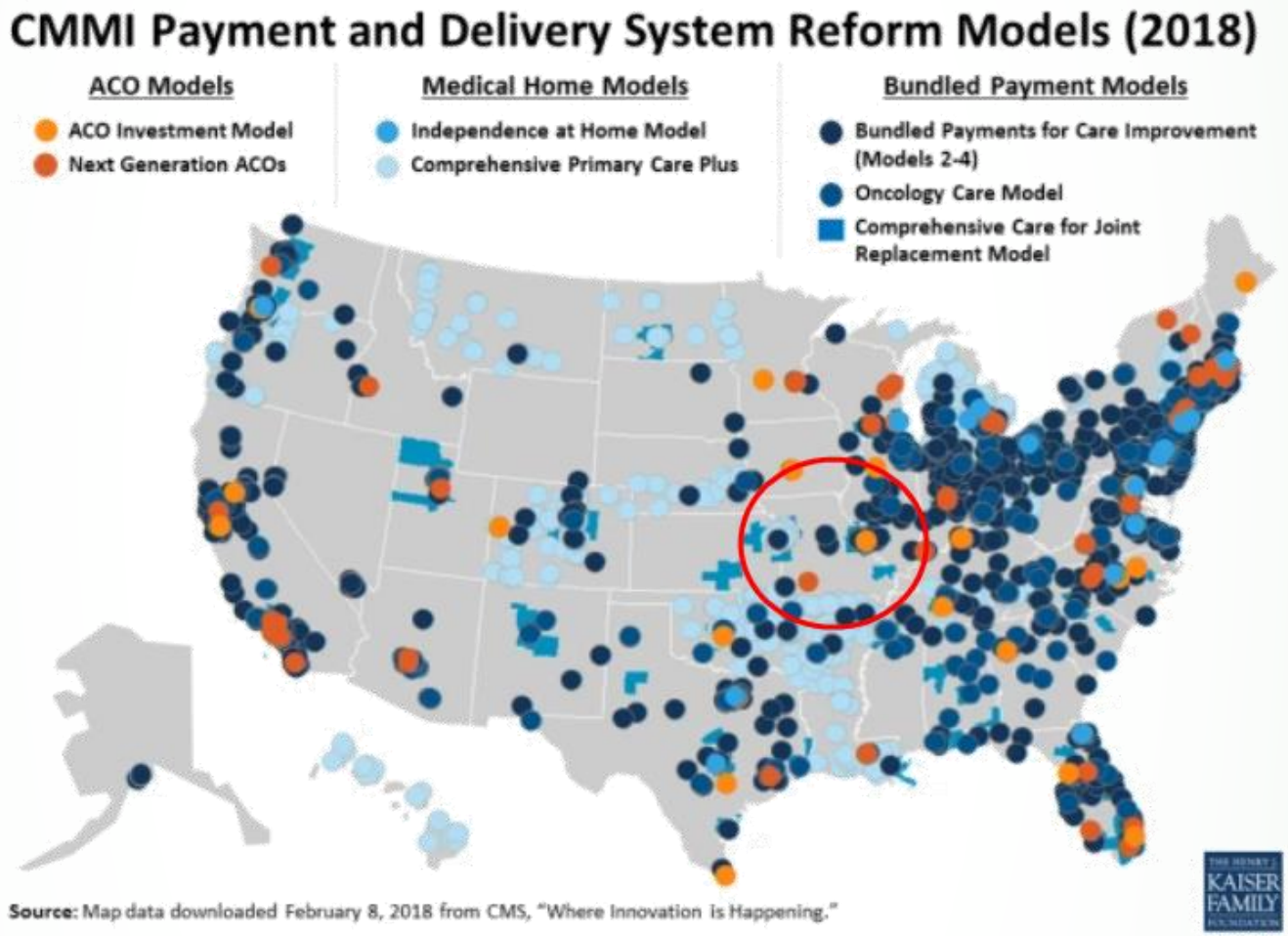
"At some point, people will access care **how** they want, **when** they want, **where** they want, for the **price** they want. They will either get it from **you** or from **somewhere else**."

Craig Deao, Managing Director, Studer Group

CMS Payment and Care Delivery Models

- Categories of innovation models
  - Accountable care organizations
  - Episode-based payment initiatives
  - Primary care transformation
  - Medicaid and CHIP population initiatives
  - Medicare-Medicaid enrollees initiatives
  - Acceleration of the development and testing of new payment and service delivery models initiatives
  - Speed the adoption of best practice initiatives

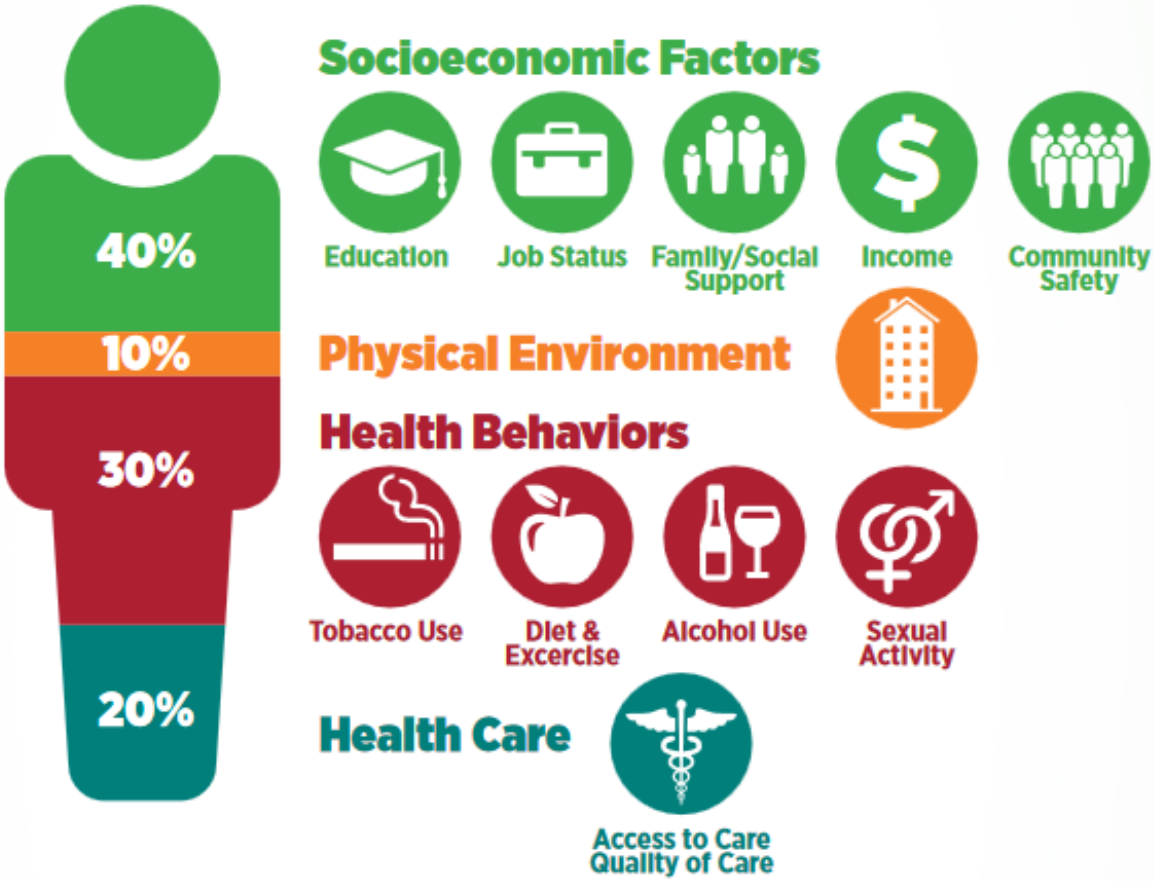
Where is The Money Going?



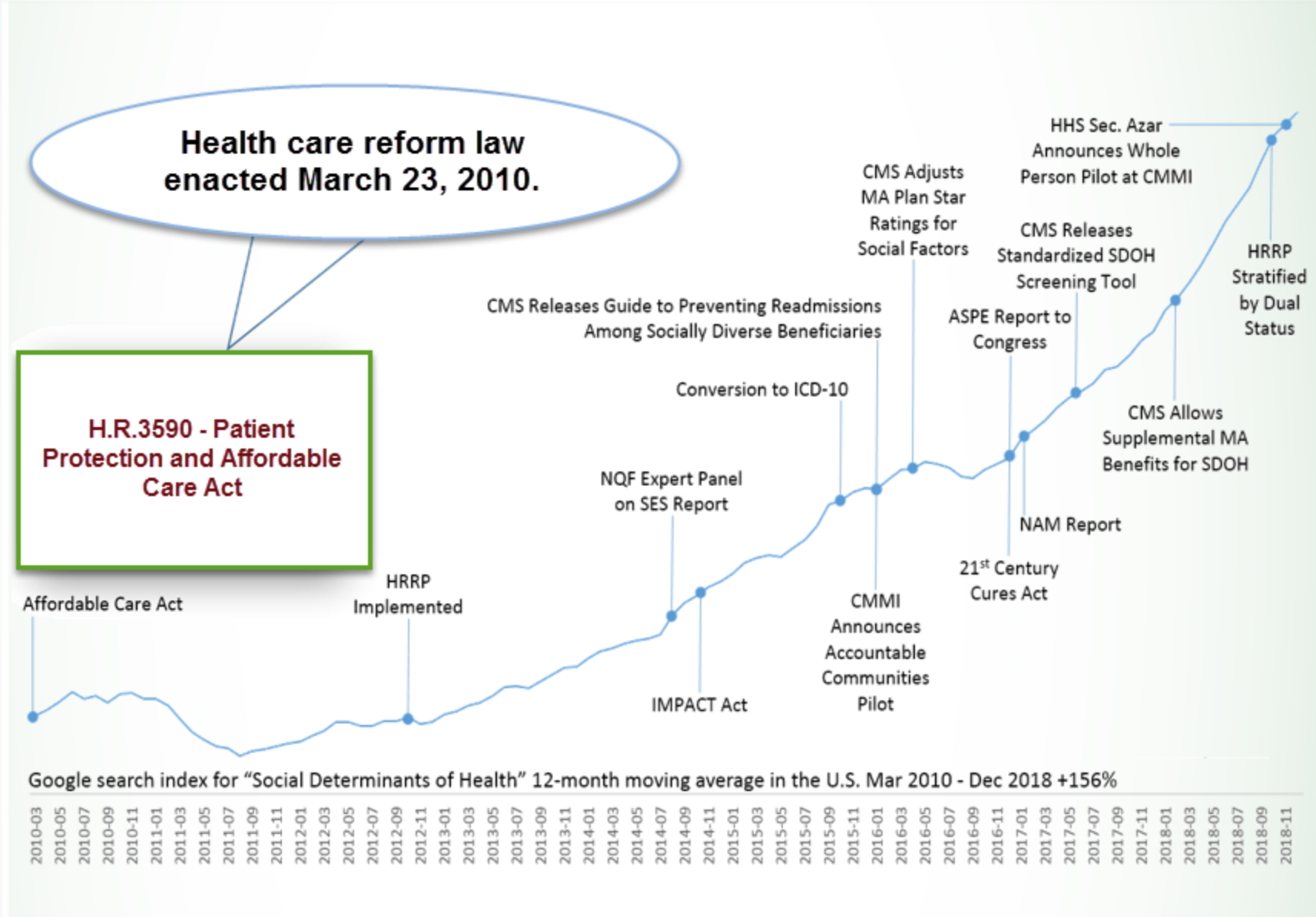
Keep Moving Forward

Source: https://www.needpix.com/photo/1384636/horses-hors-animal-running-farm

What Goes Into Your Health?



Source: Institute for Clinical Systems Improvement, *Going Beyond Clinical Walls: Solving Complex Problems* (October 2014), Adapted from The Bridgespan Group


Health care reform law enacted March 23, 2010.
H.R.3590 - Patient Protection and Affordable Care Act
Affordable Care Act
HRRP Implemented
NQF Expert Panel on SES Report
IMPACT Act
Conversion to ICD-10
CMS Releases Guide to Preventing Readmissions Among Socially Diverse Beneficiaries
CMMI Announces Accountable Communities Pilot
CMS Adjusts MA Plan Star Ratings for Social Factors
21st Century Cures Act
ASPE Report to Congress
NAM Report
CMS Releases Standardized SDOH Screening Tool
CMS Allows Supplemental MA Benefits for SDOH
HHS Sec. Azar Announces Whole Person Pilot at CMMI
HRRP Stratified by Dual Status
Google search index for "Social Determinants of Health" 12-month moving average in the U.S. Mar 2010 - Dec 2018 +156%
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Define Social Determinants of Health

"According to the Centers for Disease Control and Prevention, conditions in the places where people live, learn, work and play affect a wide range of health risks and outcomes. These conditions are known as social determinants of health."

Social Determinants of Health

SDOH Dimension	Description
Housing Instability	Having difficulty paying rent or affording a place of one's own, living in overcrowded or run-down conditions
Food Insecurity	Not having reliable access to enough affordable, nutritious food
Transportation	Not having affordable and reliable ways to get to medical appointments or purchase healthy food
Education	Not having access to high school classes or other training
Utility Needs	Not being able to regularly pay utility bills
Violence	Being exposed to use of physical force or power that results in or has a high likelihood of resulting in injury or death
Family and Social Support	Not having relationships that provide interaction and nurturing
Employment and Income	Not having the ability to get a keep or job

Source: Deloitte Center for Health Solutions

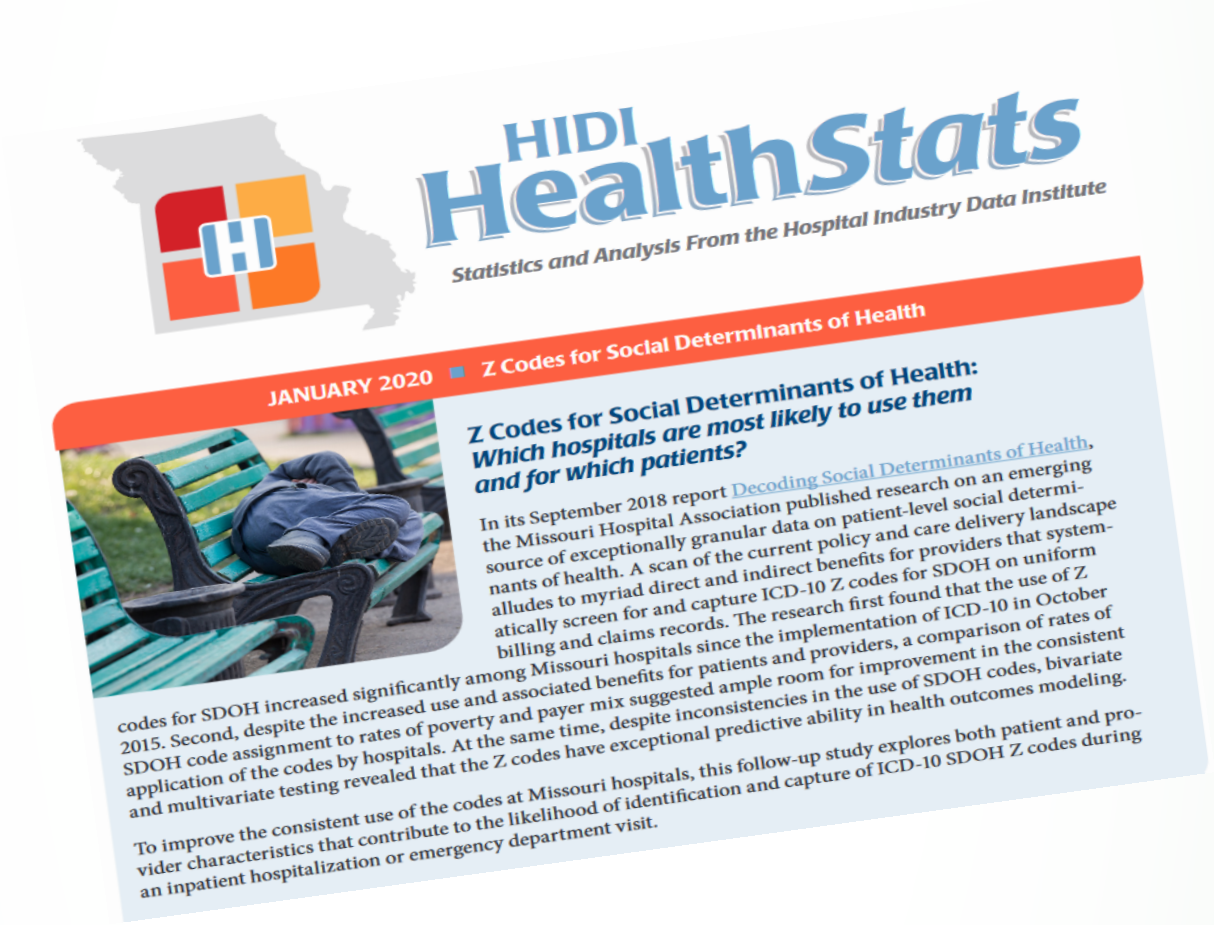
American Hospital Association™
Advancing Health in America

Table 1
ICD-10-CM Code Categories

ICD-10-CM Code Category	Problems/Risk Factors Included in Category
Z55 – Problems related to education and literacy	Illiteracy, schooling unavailable, underachievement in a school, educational maladjustment and discord with teachers and classmates.
Z56 – Problems related to employment and unemployment	Unemployment, change of job, threat of job loss, stressful work schedule, discord with boss and workmates, uncongenial work environment, sexual harassment on the job, and military deployment status.
Z57 – Occupational exposure to risk factors	Occupational exposure to noise, radiation, dust, environmental tobacco smoke, toxic agents in agriculture, toxic agents in other industries, extreme temperature, and vibration.
Z59 – Problems related to housing and economic circumstances	Homelessness, inadequate housing, discord with neighbors, lodgers and landlord, problems related to living in residential institutions, lack of adequate food and safe drinking water, extreme poverty, low income, insufficient social insurance and welfare support.
Z60 – Problems related to social environment	Adjustment to life-cycle transitions, living alone, acculturation difficulty, social exclusion and rejection, target of adverse discrimination and persecution.
Z62 – Problems related to upbringing	Inadequate parental supervision and control, parental overprotection, upbringing away from parents, child in welfare custody, institutional upbringing, hostility towards and scapegoating of child, inappropriate excessive parental pressure, personal history of abuse in childhood, personal history of neglect in childhood, Z62.819 Personal history of unspecified abuse in childhood, Parent-child conflict, and sibling rivalry.
Z63 – Other problems related to primary support group, including family circumstances	Absence of family member, disappearance and death of family member, disruption of family by separation and divorce, dependent relative needing care at home, stressful life events affecting family and household, stress on family due to return of family member from military deployment, alcoholism and drug addiction in family.
Z64 – Problems related to certain psychosocial circumstances	Unwanted pregnancy, multiparity, and discord with counselors.
Z65 – Problems related to other psychosocial circumstances	Conviction in civil and criminal proceedings without imprisonment, imprisonment and other incarceration, release from prison, other legal circumstances, victim of crime and terrorism, and exposure to disaster, war and other hostilities.

Source: American Hospital Association

Coding for Social Determinants of Health Updates - Missouri



HIDI HealthStats

Statistics and Analysis From the Hospital Industry Data Institute

JANUARY 2020 ■ Z Codes for Social Determinants of Health

Z Codes for Social Determinants of Health: *Which hospitals are most likely to use them and for which patients?*

In its September 2018 report Decoding Social Determinants of Health, the Missouri Hospital Association published research on an emerging source of exceptionally granular data on patient-level social determinants of health. A scan of the current policy and care delivery landscape alludes to myriad direct and indirect benefits for providers that systematically screen for and capture ICD-10 Z codes for SDOH on uniform billing and claims records. The research first found that the use of Z codes for SDOH increased significantly among Missouri hospitals since the implementation of ICD-10 in October 2015. Second, despite the increased use and associated benefits for patients and providers, a comparison of rates of SDOH code assignment to rates of poverty and payer mix suggested ample room for improvement in the consistent application of the codes by hospitals. At the same time, despite inconsistencies in the use of SDOH codes, bivariate and multivariate testing revealed that the Z codes have exceptional predictive ability in health outcomes modeling.

To improve the consistent use of the codes at Missouri hospitals, this follow-up study explores both patient and provider characteristics that contribute to the likelihood of identification and capture of ICD-10 SDOH Z codes during an inpatient hospitalization or emergency department visit.

Source: [January 2020 — Z Codes for Social Determinants of Health]

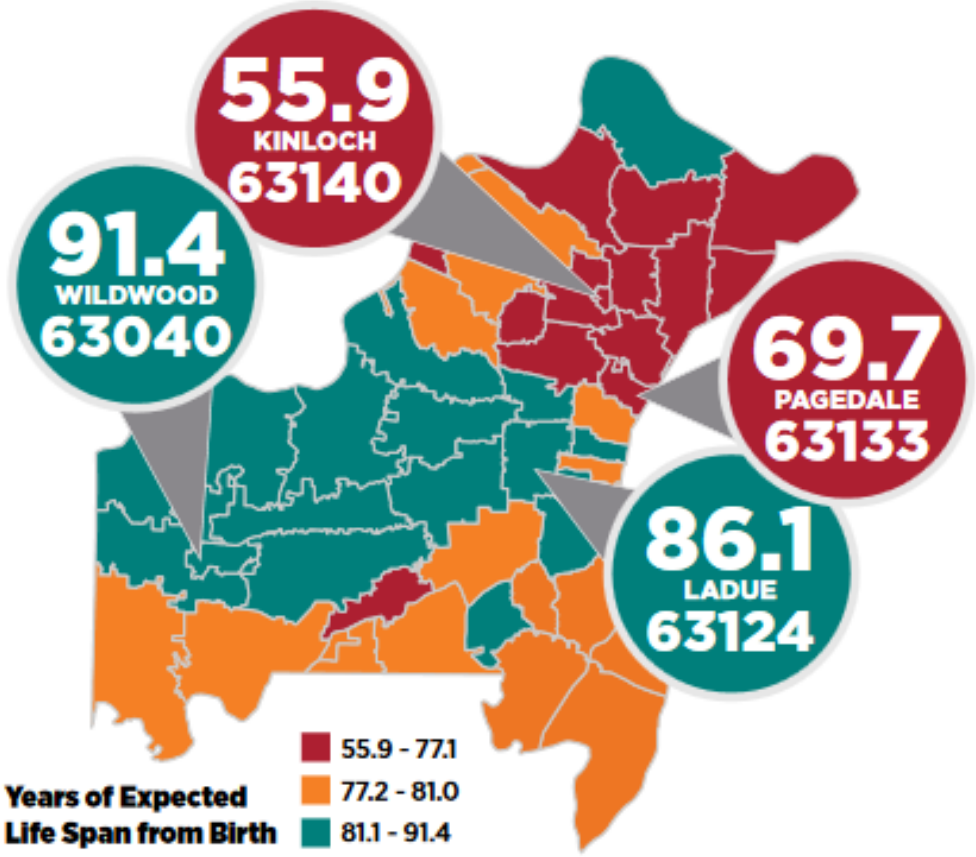
Top Z Codes Documented in Missouri

- Homelessness — Z690
- Unemployment — Z560
- Transportation — Z91.89
- Personal history of physical and sexual abuse in childhood — Z62810
- Problem related to primary support group — Z639
- Problem related to social environment — Z609
- Other problems related to social environment — Z608
- Problems related to housing and economic status — Z599

Community Health Issues and Z Codes

Access to Health Care	Heart Disease	Diabetes	Mental Health	Cancer	Substance Use/Opioids
Problems related to education and literacy, unspecified (Z559)	Problems related to education and literacy, unspecified (Z559)	Problems related to education and literacy, unspecified (Z559)	Problems related to education and literacy, unspecified (Z559)	Problems related to education and literacy, unspecified (Z559)	Problems related to education and literacy, unspecified (Z559)
Insufficient social insurance and welfare support (Z597)	Lack of adequate food and safe drinking water (Z594)	Lack of adequate food and safe drinking water (Z594)	Personal history of physical and sexual abuse in childhood (Z62810)	Occupational exposure to toxic agents in other industries (Z575)	Personal history of adult physical and sexual abuse (Z91410)
Other problems related to housing and economic circumstances (Z598)	Patient's noncompliance with other medical treatment and regimen (Z9119)	Patient's noncompliance with other medical treatment and regimen (Z9119)	Problems related to primary support group, unspecified (Z639)	Patient's noncompliance with other medical treatment and regimen (Z9119)	Problems related to primary support group, unspecified (Z639)
Unemployment, unspecified (Z560)	Patient's other noncompliance with medication regimen (Z9114)	Patient's other noncompliance with medication regimen (Z9114)	Personal history of psychological abuse in childhood (Z62811)	Patient's other noncompliance with medication regimen (Z9114)	Personal history of psychological abuse in childhood (Z62811)

St. Louis County
Life Expectancy By ZIP Code



Source: 2010 Decennial Census, U.S. Census Bureau; 2010 MICA, Missouri Dept. of Health & Senior Services; Centers for Disease Control and Prevention; Methodolody Adapted from For the Sake of All (http://forethesakeofall.org/).

Integrating Social Determinants of Health into Care Delivery

HEALTHIER POPULATIONS better health care VALUE

Trajectories
Aim For Excellence

MARCH 2020 ■ Integrating Social Determinants of Health in Care Delivery

In This Issue

2 Introduction and Background
2 Financial Implications
3 Policies Impacting SDOH
3 Power of Zip Code–Level Health Outcomes Data
4 Coding for SDOH
5 Impact of SDOH in Missouri
6 Call to Action for Paients and Communities
6 SDOH Standardized Screening Tools
7 Truman Medical Centers/ University Health Physicians
7 Missouri Primary Care Association
9 Incorporating Z Codes in Community Health Needs Assessments
10 National and State Models of SDOH
11 Conclusion
12 Research

Research Summary

Research has shown that addressing both clinical and nonclinical factors of health is an important step in promoting health for everyone.[i] While the U.S. spends the most in health care compared to other affluent nations, it ranks 27th in life expectancy, fourth in infant mortality and sixth in maternal mortality, and it has the highest number of drug-related deaths.[ii] Missouri, on the other hand, ranks 40 out of 50 overall in national health rankings, and ranks 40th in premature deaths and preventable hospitalizations, 41st in cancer and cardiovascular deaths, 37th in diabetes, and 35th in heart disease.[iii]

Research further reveals that geography is a better predictor of an individual's health than is their genetic code.[iv] Data derived from exploreMOhealth.org[v] — a platform designed to assist community health stakeholders assess the health of their communities — depicts that disparities in health are evident between ZIP codes separated only by a few miles.[v] Minority groups often are more affected by health disparities than dominant groups. For instance, a study conducted by the Centers for Disease Control and Prevention showed that individuals of race and ethnic minority groups have a significantly higher prevalence of chronic diseases, such as diabetes, compared to non-Hispanic whites.[vi]

Source: https://web.mhanet.com/quality-and-health-improvement.aspx

Source: Robert Wood Johnson Foundation

SDOH Standardized Screening Tools

- Protocol for Responding to and Assessing Patients' Assets, Risks and Experiences Tool
- American Academy of Family Physicians Social Needs Screening Tool
- The Centers for Medicare & Medicaid Services Accountable Health Communities
- Self-Sufficiency Outcomes Matrix
- Roots to Health Survey
- ICD-10 Z codes

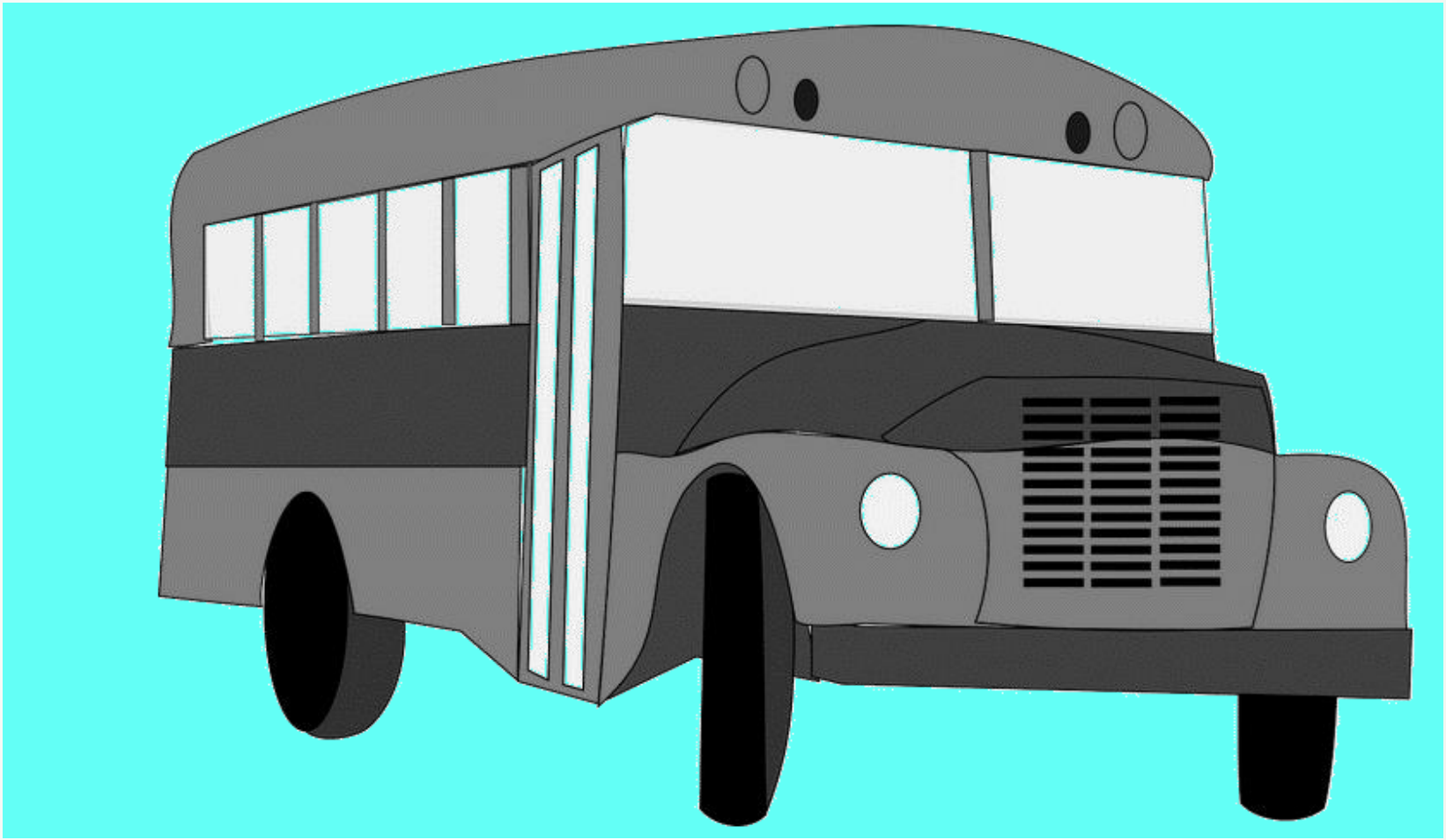
Social Referral Platforms

- Aunt Bertha
- CharityTracker
- First Call Technology
- Healthify
- Signify Community
- CrossTX

Innovative Model — Case Study

SDOH Dimension — Transportation

Innovative Model — Transportation



Source: https://freesvg.org/vector-image-of-chiva-bus

Innovative Model Cohort

- Project highlights
  - Identified transportation as an issue through their Community Health Needs Assessment process
  - Collect SDOH data using
    - SDOH screening form
    - PRAPARE tool
    - ICD-10 Z codes
  - Identified transportation service providers
  - Secured contract while other hospital did not need one given their longstanding relationship
  - Hospital staff were educated on how to identify patients in need of transportation
    - Presentations
    - Daily stand-up huddles

Innovative Model Cohort

- Project highlights
  - Patients are provided information on available transportation services
  - Patients get free rides or are required to pay a nominal fee
  - Patients unable to afford the nominal fee periodically get free coupons for rides within the city
  - Transportation providers offer rides for grocery shopping and pharmacy within the city limits
  - Hospitals will track no-shows and other health outcomes/cost savings data in the future

Lessons Learned

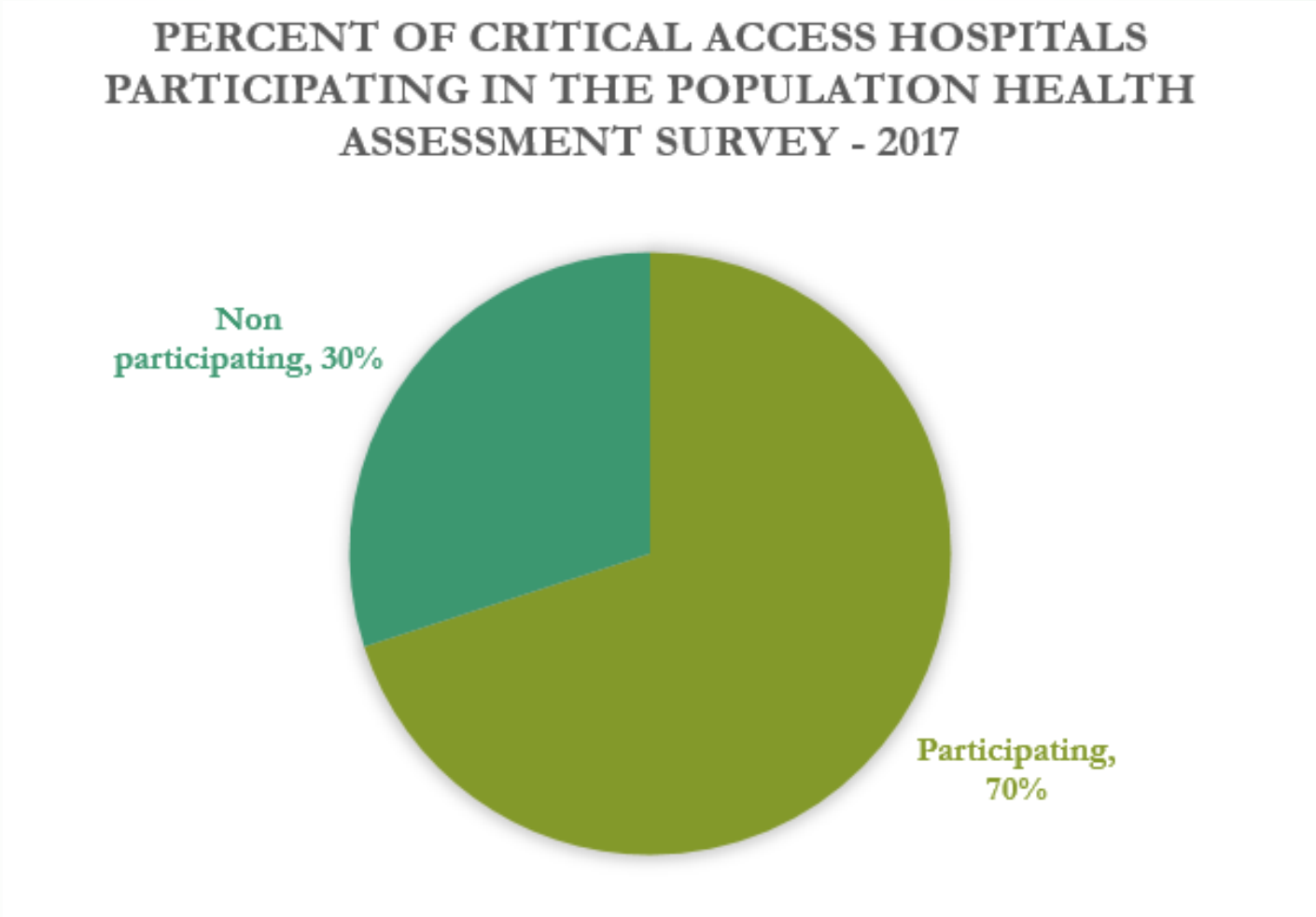
- Use the power of data to drive your decisions
- Educate staff at all levels
- Do your research
- Do not reinvent the wheel
- Connect with your community
- Be flexible to changing environment
- Close the feedback loop
- Celebrate successes and learn from mistakes

Population Health Assessment Survey — A Recap

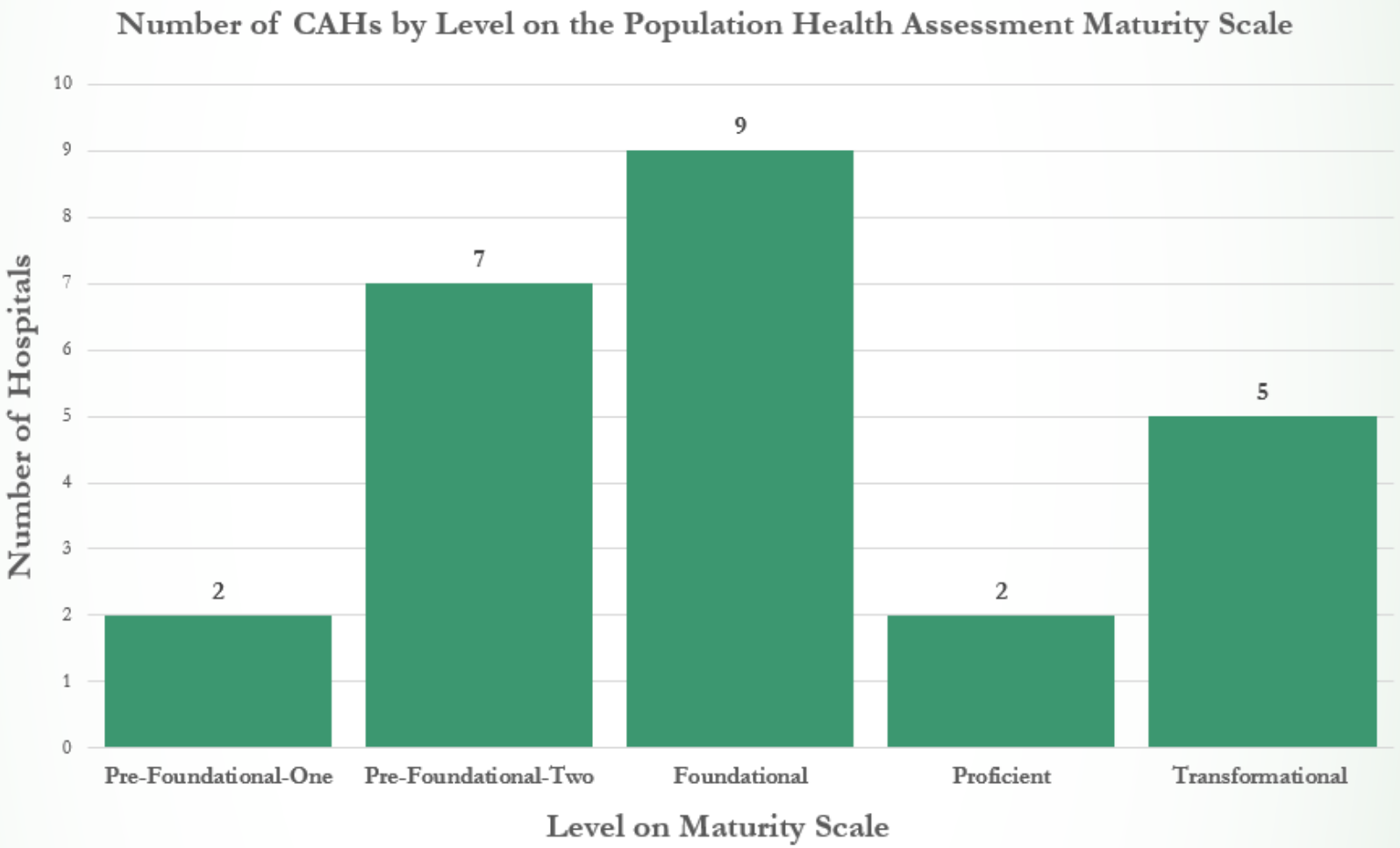
Importance of the Population Health Assessment Survey

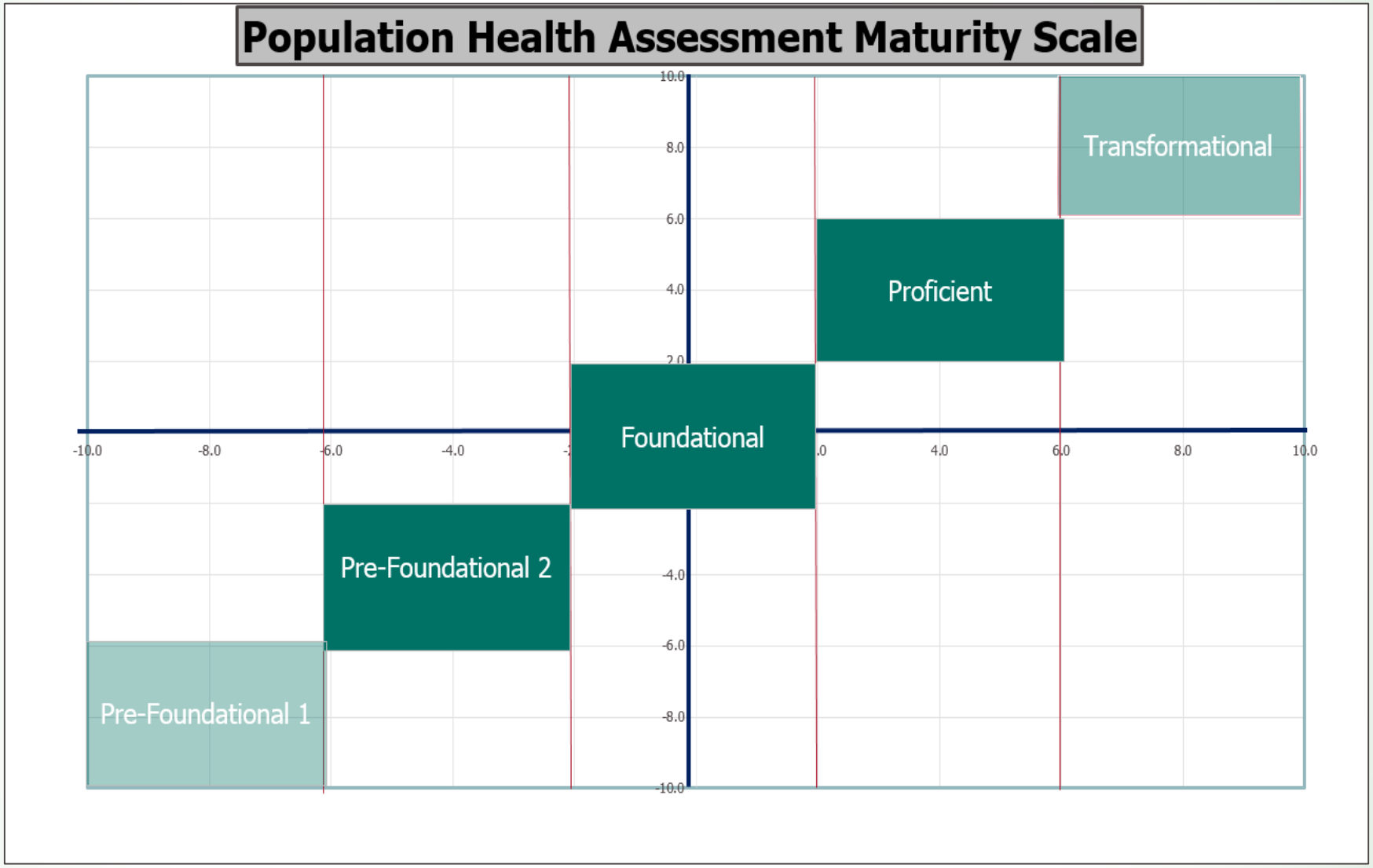
- Assess the readiness of each hospital's journey toward population health
- The assessment will focus on nine domain areas
  1. Leadership/strategic planning
  2. Patients/community
  3. Workforce
  4. Finance
  5. Data and technology
  6. Operations
  7. Legal/regulatory
  8. Outcomes
  9. Policy/advocacy

Survey Response Rate Among CAHs

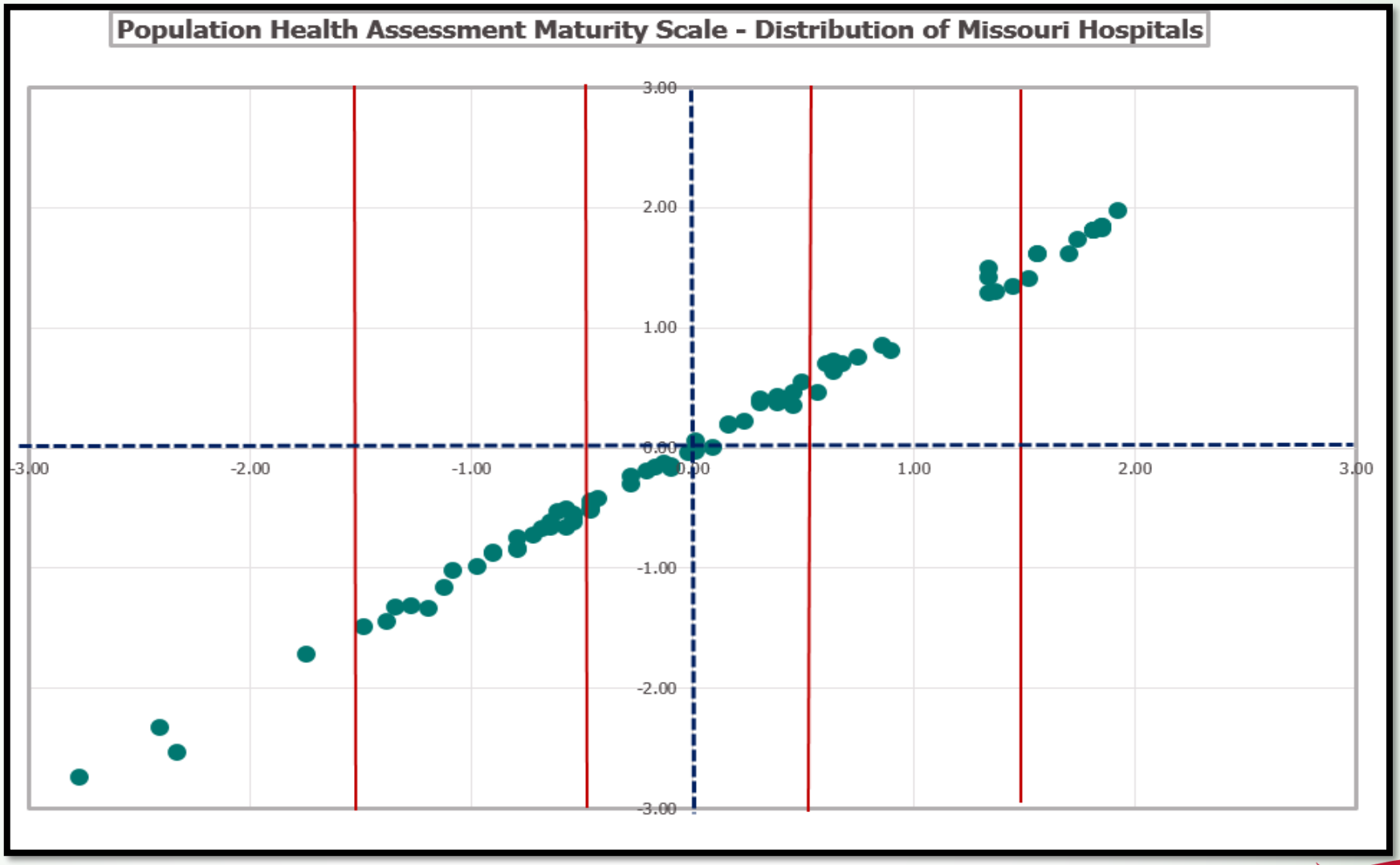


Distribution on Maturity Scale



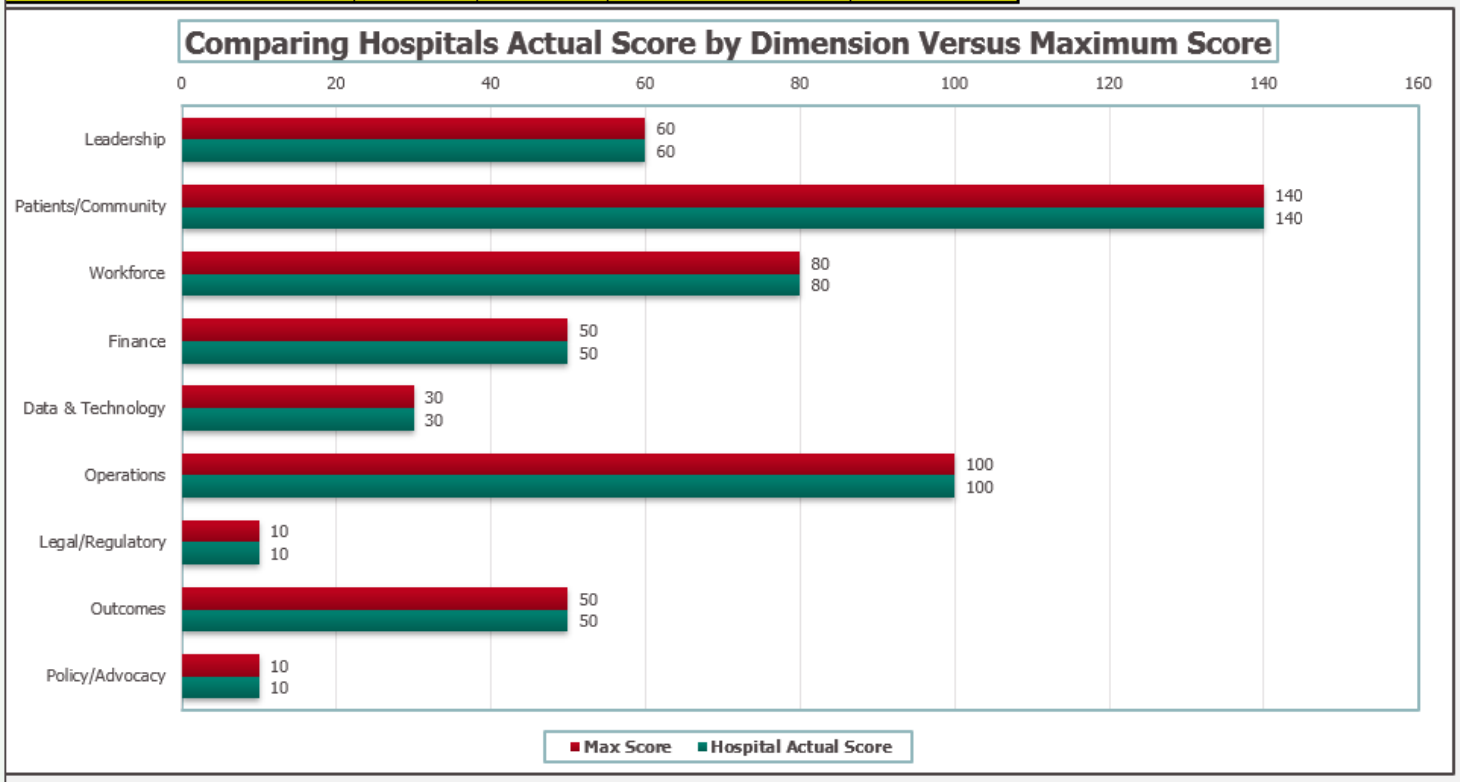

Population Health Assessment Maturity Scale
Transformational
Proficient
Foundational
Pre-Foundational 2
Pre-Foundational 1
10.0
8.0
6.0
4.0
2.0
-4.0
-6.0
-8.0
-10.0
-10.0
-8.0
-6.0
-4.0
4.0
6.0
8.0
10.0

Distribution on Maturity Scale



Population Health Maturity Scale

	Max Score	Weight	Hospital Actual Score	Hospital Score
Leadership	60	12	60	12.0
Patients/Community	140	15	140	15.0
Workforce	80	12	80	12.0
Finance	50	10	50	10.0
Data & Technology	30	10	30	10.0
Operations	100	15	100	15.0
Legal/Regulatory	10	5.5	10	5.5
Outcomes	50	15	50	15.0
Policy/Advocacy	10	5.5	10	5.5
	530	**100**	**530**	**100.0**



Next Steps

- Population health assessment survey will be sent to your CEO and population health contact
- A copy of your 2017 assessment will be sent to refresh your memory of how you scored.
- Hospitals will have four weeks to complete it.

Source: https://pxhere.com/en/photo/1445109

Recommendations and Updates

- Each hospital's population health contact and CEO will receive a copy of their results around November.
- Hospitals should review their survey results to address identified gaps.
- MHA will continue to offer adaptive support to address questions regarding your survey results.
- Webinar highlighting overall results will be offered at the beginning of 2021.
- The next population health assessment will be administered in the fall of 2023.

Recommended Steps

ORGANIZATIONAL STATE	RECOMMENDED STEPS
Pre-Foundational One	• Educate board, leadership team and other appropriate staff on population health concepts, terminology, current landscape and value-based models • Evaluate operational and clinical process with care gaps and transitions • Utilize community health needs assessment data to develop short- and long-term health care needs
Pre-Foundational Two	• All of foundational as well as process flow mapping • Patient flow assessments from outpatient to inpatient setting and vice versa • Evaluate ability to gather, analyze and report meaningful data • Positioning toward value-based performance
Foundational	• Evaluate community health needs assessment data and correlate to impact on improvement and outcomes • Evaluate medical home recognition for clinics • Improve data aggregation with risk stratification
Proficient	• Increase movement toward value-based payment models • Coordinate care with FQHCs and non-owned entities • Increase education in high reliability and LEAN Six Sigma approaches to reduce redundancies/duplication
Transformational	• Transparent with internal quality review, care transitions, referral management techniques • Innovative solutions for patient access • Increased alignment with quality mechanisms and provider and executive-level compensation • Increased community, as well as local and state advocacy efforts, to reduce socio-economic disparities

Post Survey — Poll Question

- Following today's session, I have a better understanding of how population health impacts cost and care delivery in healthcare. *(Use the scale of 1-5 below)*
  - 5 – Strongly agree
  - 4 – Agree
  - 3 – Neutral
  - 2 – Disagree
  - 1 – Strongly disagree

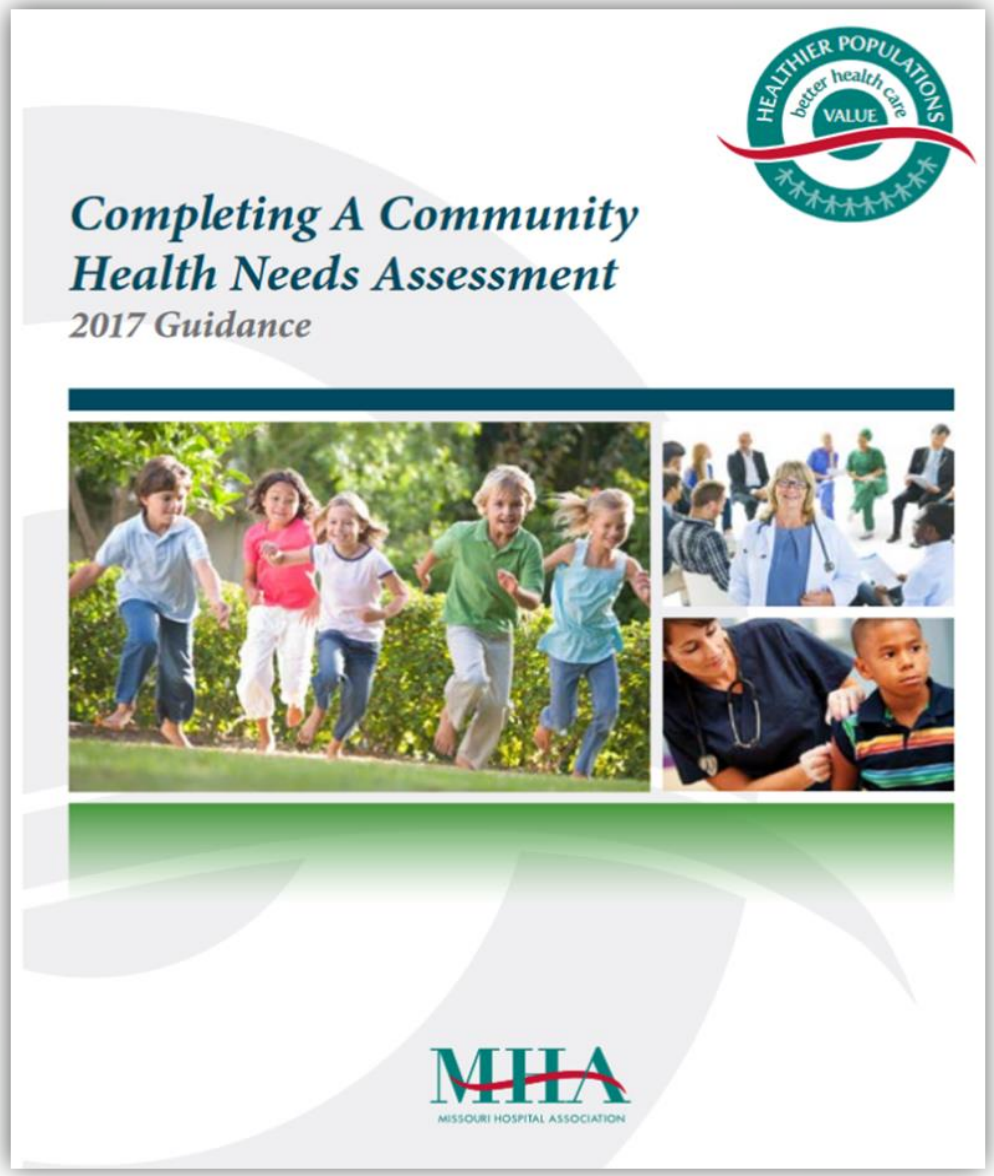
Post Survey — Poll Question

- Following today's session, I have a better understanding of the impact of social determinants of health on health outcomes and cost of care. *(Use the scale of 1-5 below)*
  - 5 – Strongly agree
  - 4 – Agree
  - 3 – Neutral
  - 2 – Disagree
  - 1 – Strongly disagree

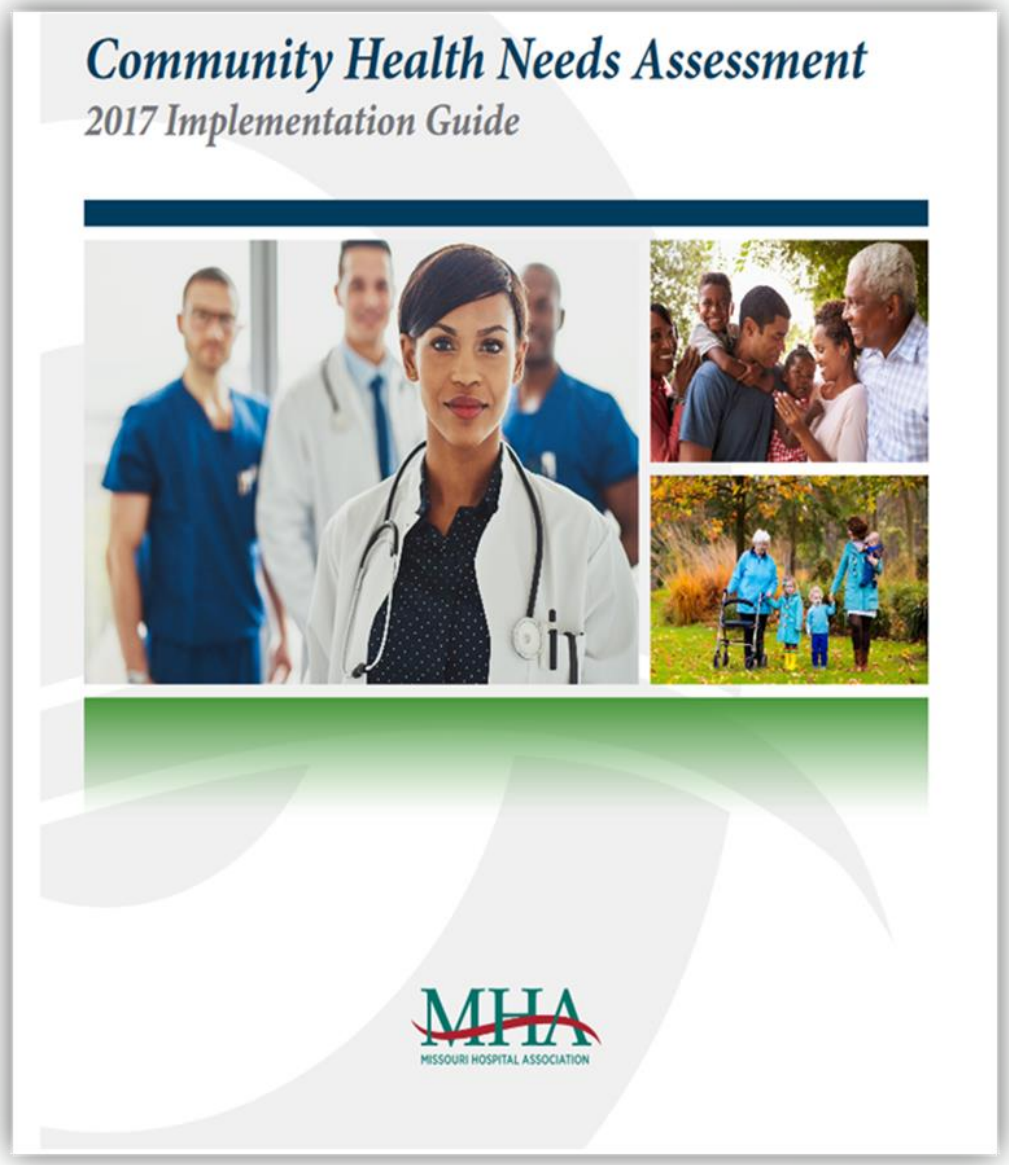
Source: https://www.pikrepo.com/fynxa/question-mark-illustration

Resources

Source: exploreMOhealth- https://exploremohealth.org/



Source: https://web.mhanet.com/Comm%20Health/CHNA_Guidance_web.pdf



Source: https://www.mhanet.com/mhaimages/sqi/chna/CHNA_Implementation%20Guide.pdf

MHA
MISSOURI HOSPITAL ASSOCIATION

Engaging Your Community

A Guide for Nonprofit Hospitals

Source:https://web.mhanet.com/SQI/Engaging%20Your%20Community_A%20guide%20for%20nonprofit%20hospitals.pd.pdf

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- Miles Away, Worlds Apart: Assessing Community Health Needs with exploreMOhealth

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