

A Framework for Medicaid Programs to Address Social Determinants of Health: Food Insecurity and Housing Instability

FINAL REPORT

DECEMBER 22, 2017



NATIONAL
QUALITY FORUM

This report is funded by the Centers for
Medicare & Medicaid Services.

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EXECUTIVE SUMMARY

Social determinants of health (SDOH) are among the most influential factors that determine the health outcomes of individuals.¹ Growing recognition of the role of the healthcare system in addressing SDOH to improve population health has led to several initiatives. For example, providers are increasingly incentivized to address determinants of health through participation in pay-for-performance programs and alternative payment models, and policy changes like the community benefit requirements for nonprofit hospitals have occurred through the Affordable Care Act. Yet, the healthcare system does not routinely collect SDOH data or coordinate care to address social needs. Increasingly, Medicaid programs are working to connect health and nonhealth services that can address SDOH to support the provision of more effective and holistic healthcare. Many Medicaid programs have begun to address SDOH through waivers, demonstration projects, and service delivery reforms. However, there is no framework for Medicaid programs seeking to make strategic investments in the collection and use of SDOH data.

In collaboration with Centers for Medicare & Medicaid Services (CMS), the National Quality Forum (NQF) developed a framework for state Medicaid programs to better assess and address social needs in healthcare, using food insecurity and housing instability as illustrative examples. To support this work, NQF convened a multistakeholder Expert Panel to:

- direct an environmental scan of measures that assess food insecurity and housing instability;
- identify a framework that illustrates the role of measurement and the healthcare system in addressing SDOH; and
- provide recommendations on how Medicaid programs can support the role of the healthcare system in addressing SDOH.

Food insecurity and housing instability were selected as key areas for which Medicaid programs can support data collection efforts in the short

term. An environmental scan and literature review uncovered indicators, screening tools, surveys, and other instruments along with emerging approaches to address food insecurity and housing instability. The majority of measurement for both food insecurity and housing instability is conducted through national and state survey instruments. The evidence base for existing measures and interventions is still developing.

Based on findings from the literature review and environmental scan of measures, the Expert Panel identified a framework that describes the role of Medicaid programs in addressing SDOH. The framework builds on the hub-and-spoke model by Taylor et al. and work from the Social Interventions Research & Evaluation Network at the University of California, San Francisco.^{2,3} The framework positions Medicaid programs as a central entity, or at the “hub,” in supporting the healthcare system’s role in addressing SDOH and nonhealth sectors as the “spokes.” It illustrates the importance of

collaboration and partnerships between health and nonhealth sectors and the utility of SDOH data in healthcare delivery.

SDOH data can support the delivery of targeted and informed healthcare. **SDOH informed healthcare** involves using information on social needs in clinical decision making for Medicaid beneficiaries. In essence, providers can adjust treatment decisions based on individual circumstances. **SDOH Targeted Healthcare** involves connecting individuals to nonhealth services (e.g., Temporary Assistance of Needy Families, Head Start, and homelessness assistance programs) that can address SDOH.

The Expert Panel provided six recommendations to support the implementation of the framework with input from NQF members, the public, and key informants. The Panel categorized its recommendations into the following areas: community and healthcare system linkages; information sharing and measurement; and payment methods and innovative use of resources.

The recommendations are:

1. Acknowledge that Medicaid has a role in addressing social determinants of health.
2. Create a comprehensive, accessible, routinely updated list of community resources.
3. Harmonize tools that assess social determinants of health.
4. Create standards for inputting and extracting social needs data from electronic health records.
5. Increase information sharing between government agencies.
6. Expand the use of waivers and demonstration projects to learn what works best for screening and addressing SDOH.

These recommendations, though generally directed at state Medicaid programs, are likely to be applicable to other entities. In an effort to offer further guidance to state Medicaid programs, this report includes a series of descriptive examples.

INTRODUCTION

Social determinants of health (SDOH) are among the most influential factors that affect the health of individuals. The National Academy of Medicine describes these factors as the conditions in which people are born, live, learn, work, play, worship, and age.⁴ Growing recognition of the benefits of connecting healthcare with nonhealth services that can address SDOH has led to numerous initiatives. For instance, some states have even implemented a “Health in All Policies Approach,” which prioritizes health as a key outcome of policymaking.⁵ Private organizations have also begun to address SDOH through community partnerships.⁶ In the same vein, state Medicaid programs are leveraging their capabilities to adopt strategies that can address SDOH.

Medicaid programs are uniquely suited to bridge the gap between healthcare and nonhealth services that can improve health outcomes.⁷ First, Medicaid has the infrastructure to serve as a base to design an integrated health and social service system. Second, through the state-federal partnership, Medicaid programs can be tailored to meet the needs of each state’s unique populations and circumstances, and can facilitate links between other state and federal agencies. Further, Medicaid programs serve over 74 million beneficiaries who are connected to a system that can assess eligibility and need based on a variety of demographic factors.⁸ Finally, Medicaid programs already are connected to and serve many of the individuals who can benefit most from nonhealth services that address SDOH (e.g., housing supports, temporary assistance, and employment services).⁹

Moreover, there is a strong business case for Medicaid programs to address SDOH. The National Academy of Social Insurance’s report, *Medicaid’s Role in Improving Social Determinants of Health: Opportunities for States*, describes how strategies to address SDOH combined with timely access to primary and preventive care, behavioral and substance abuse treatment, and home and community-based services (HCBS) can reduce “the unnecessary use of the most expensive medical care.”¹⁰ States can use Medicaid to remove barriers between the health system and social, nutritional,

housing, transportation, and other sectors to promote health and well-being. In addition, new payment models that hold providers accountable for patient health and costs of treatment (e.g., shared savings, global budgets, and capitated payments) continue to push providers to address nonhealthcare factors that influence health outcomes.¹¹

Medicaid programs have several options to support initiatives to address SDOH. The Delivery System Reform Incentive Program (DSRIP) requires states to reduce hospitalizations, improve outcomes, and move Medicaid providers to value-based contracts. Through the DSRIP, under Section 1115 of the Social Security Act, Medicaid programs can transform state healthcare systems through “infrastructure development, system redesign, clinical outcome improvements, and population-focused improvements.”¹² Under an 1115 waiver, Oregon uses its Medicaid dollars for health-related supportive services like education/job training and self-help/support groups. Similarly, Utah is using a risk-adjusted, capitated model for similar services.¹³ New York has also made significant strides in addressing social needs through its Medicaid Redesign Team (MRT) which promotes community-level collaborations (e.g., job training, rental subsidy assistance, tenancy support) to reduce avoidable hospital use.¹⁴ In addition, revised managed care regulations have increased Medicaid’s ability to invest in activities that address at SDOH at the community level.^{15,16}

In 2016, the Kaiser Family Foundation 50-State Medicaid Budget Survey found that 26 states have already “required or encouraged MCOs to screen for social needs and provide referrals to other services.”¹⁷ In addition, 1915(c) and 1915(i) waivers allow states to provide HCBS, which can be used to address SDOH through case management, personal care services, habilitation, and other supports.¹⁸ These are a few, among many, examples of how Medicaid programs are leading efforts. Ultimately, Medicaid cannot bear the entire burden of addressing SDOH, but it can play a key role in connecting individuals to other safety-net systems and help to foster more effective healthcare delivery.¹⁹

PROJECT PURPOSE

Although there are a growing number of initiatives to address SDOH within healthcare, many are happening in silos, and there is little Medicaid-specific guidance for collecting SDOH data and supporting healthcare organizations as they begin and continue to address social needs. Leading health organizations like the Robert Wood Johnson Foundation, Health Leads, and others have called for a framework for Medicaid to address SDOH to guide strategic investments in the collection and use of SDOH data.²⁰ In collaboration with the Centers for Medicare & Medicaid Services (CMS), the National Quality Forum (NQF) convened an Expert Panel to develop a framework for state Medicaid programs to better integrate health and nonhealth services, using food insecurity and housing instability as illustrative examples. The Expert Panel included clinicians, researchers, health plans, health systems, and consumer advocates ([Appendix A](#)). To support this work, the Expert Panel:

- directed a literature review and environmental scan of measures that assess food insecurity and housing instability ([Appendix B](#) and [Appendix C](#));
- developed a framework that illustrates the role the healthcare system in addressing SDOH; and
- provided recommendations on how Medicaid programs can support the role of healthcare organizations in addressing SDOH.

Food insecurity and housing instability were selected as key areas for which Medicaid programs can support data collection efforts in the short term. The purpose of the literature review and environmental scan of measures was to provide examples of how food insecurity and housing instability are currently measured and interventions

or best practices for remediation by health systems. The current landscape of initiatives and measurement approaches provide a useful context for how Medicaid programs can begin or continue supporting future efforts. The environmental scan collected many patient-level measures (i.e., person-reported measures), screening tools, tool kits, and some population-level measures for both food insecurity and housing instability.

In addition, NQF conducted key informant interviews to supplement the literature review and environmental scan ([Appendix A](#)). Key informants were selected on the basis of their role and expertise in either food insecurity, housing instability, or both. Key informants occupied leadership roles in organizations intervening to mitigate the incidence and impact of food insecurity and housing instability, including public health departments, associations, food banks, and clinics. The interviews offered qualitative insight into the ways in which healthcare organizations, communities, and government agencies are working together to address SDOH. These interviews provided important context for the Expert Panel's recommendations.

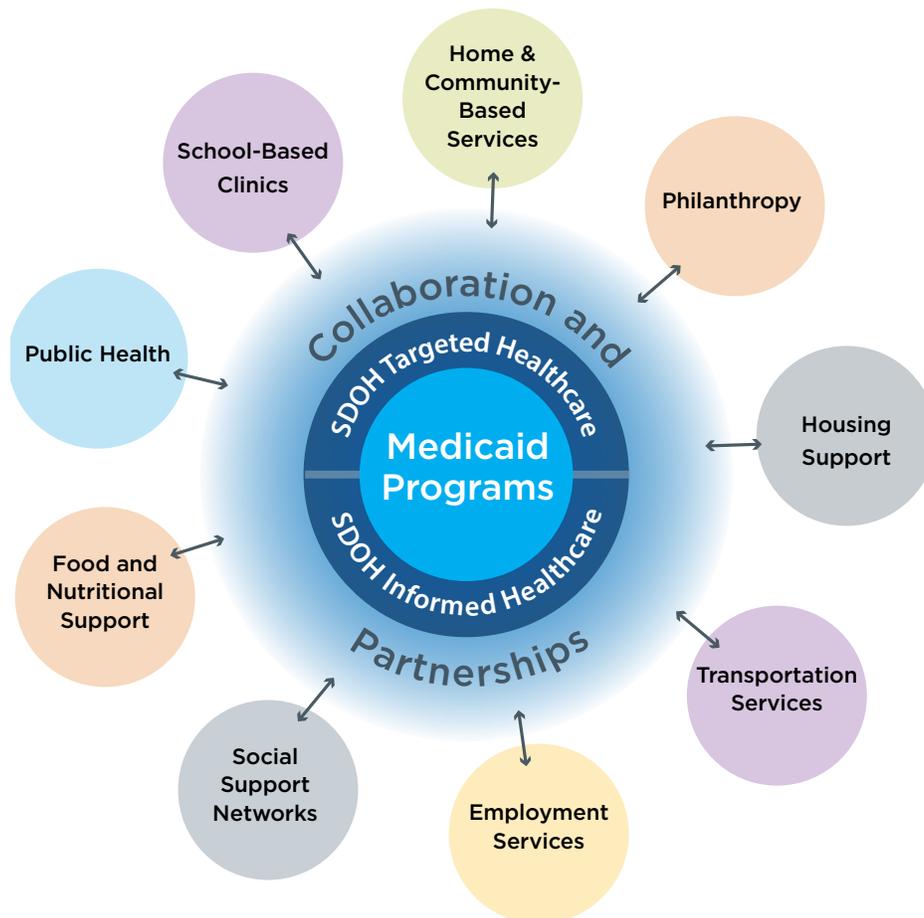
The Expert Panel developed the framework and recommendations based on its findings. The framework is intended to support Medicaid programs in efforts to connect individuals to health and nonhealth services to address SDOH. The recommendations can be applied to multiple determinants of health, but the examples are primarily tailored to food insecurity and housing instability. The following sections present the framework, a review of the literature on food insecurity and housing instability with example measures, and the Expert Panel's recommendations.

FRAMEWORK

The framework builds on the hub-and-spoke model by Taylor et al., and work from the Social Interventions Research & Evaluation Network at the University of California, San Francisco (Figure 1).^{21,22} The framework is not intended to replace previous work that refers to the role of government, public health, and healthcare in capturing data on social needs and connecting individuals to services.²³ Rather, it outlines an approach and basis for Medicaid programs to take a greater role in supporting efforts within the healthcare system to address SDOH. The framework positions Medicaid programs as a central entity, or at the

“hub,” in the healthcare system’s role in addressing SDOH and nonhealth sectors as the “spokes.” It illustrates the importance of collaboration and partnerships between health and nonhealth sectors and the utility of SDOH data in healthcare delivery. It also builds on the work of NQF’s *Roadmap for Promoting Health Equity and Eliminating Disparities*, which emphasizes healthcare that addresses SDOH, supports social services needs within clinical visits, and fosters community and health systems linkages.²⁴ The framework highlights the role of SDOH data in delivering more effective healthcare that is “informed” and “targeted.”

FIGURE 1. A FRAMEWORK FOR STATE MEDICAID PROGRAMS TO ADDRESS SOCIAL DETERMINANTS OF HEALTH



SDOH Informed Healthcare involves using information on social needs in clinical decision making for Medicaid beneficiaries. For instance, providers can dose medications around work schedules or the availability of refrigeration, connect patients with mobile health services that can improve access, and increase the flexibility of their hours of operation. In essence, providers can adjust treatment decisions based on individual circumstances. **SDOH Targeted Healthcare** involves connecting individuals to nonhealth services (e.g., Temporary Assistance of Needy Families, Head Start, and homelessness assistance programs) that can address SDOH. In many cases, older adults who are dually eligible for Medicare and Medicaid are eligible for other benefit programs. Medicaid-enrollee data could be linked with enrollee data from the Supplemental Nutrition Assistance Program (SNAP) to identify dually eligible seniors that are eligible but not enrolled.²⁵

Recognizing that healthcare organizations are limited in their capacity to address SDOH, the Expert Panel highlighted their role, supported by Medicaid programs, as a convener of other sectors that are working or have the capacity to address SDOH. Healthcare organizations are highly skilled in managing contractual relationships with vendors and are increasingly responsible for population health. For example, the Affordable Care Act included community benefit provisions that require community health needs assessments (CHNAs) for nonprofit hospitals to improve the health of the communities they serve.²⁶ Healthcare organizations can “contract or manage health promotion activities and social service delivery, by purchasing services from community organizations.”²⁷

Moreover, many healthcare organizations are considered anchor institutions in communities because of their large economic footprint (as an employer, purchaser, and investor). They are able to leverage that position to act as a convener of community organizations (e.g., schools, law enforcement, and local government) that have a common interest in fostering collaboration and partnerships to improve the welfare of a community of residents. Numerous healthcare organizations are beginning to reorganize their nonclinical practices and assets by changing supply chain procurement policies, hiring and workforce development, and investment portfolio to focus on addressing issues that affect communities.²⁸ For instance, Kaiser Permanente has made great strides in increasing access to healthy foods in thousands of schools.²⁹ Medicaid programs can support anchor institutions in these types of delivery reforms.

Data at the patient level and population level are essential to supporting the role of healthcare organizations in addressing SDOH. However, these data are not routinely collected in practice because of privacy concerns, resource limitations, and lack of connectivity between systems that could be used to coordinate services. Despite these challenges, several Medicaid programs have begun implementing initiatives to bridge the gap between healthcare and nonhealth services, foster cross-agency collaboration at the state level, and incentivize collection and sharing of data on social needs. The following sections describe measurement and examples of emerging practices to address food insecurity and housing instability.

FOOD INSECURITY AND HOUSING INSTABILITY REVIEW

The United States Department of Agriculture (USDA) estimates that nearly 12 percent of U.S. households were classified as food insecure in 2016: 7.4 percent were classified as having low food security, and 4.9 percent, very low.³⁰ The majority of food insecure households (31.6 percent) had children, and were headed by a single woman.³¹ On average, food insecure households had incomes 185 percent below the poverty threshold (poverty line was \$24,339 for a family of four in 2016).³² Beyond data collected by the federal government, *Feeding America*, a nonprofit network of 200 food banks, regularly conducts and compiles research to understand the characteristics and lives of individuals who are food insecure.

A recent review of the literature documented many studies that assessed the impact of food insecurity on health outcomes.³³ These studies have examined the impact of food insecurity on children, adults under 65 years old, and seniors. For example, among children, food insecurity is associated with birth defects, anemia, cognitive problems, aggression, and anxiety. Fewer studies have examined health outcomes among nonsenior adults, but food insecurity has been associated with decreased nutrient intakes, mental health problems, diabetes, hypertension, and worse outcomes on health exams. Even fewer studies have examined health outcomes among seniors, but some have found food insecurity to increase seniors' need for assistance with activities of daily living. Several recent studies have corroborated previous evidence.^{34,35}

Among low-income families with children, housing instability strongly correlates with severe food insecurity. According to the U.S. Department of Housing and Urban Development (HUD), in

2015, 8.3 million renters were classified as having worst-case needs or as having experienced housing instability.³⁶ Worst-case housing needs are defined as renter households with very low incomes (not more than half of the median income in their area) that lack housing assistance and have severely inadequate housing or severe housing cost burdens exceeding half of their income.³⁷ Individuals who experience worst-case needs are at greater risk of homelessness. In 2016, among individuals who experienced homelessness, 22 percent were children, 69 percent were over the age of 24, and 9 percent between the ages of 18 and 24.³⁸

The link between housing instability and lower health outcomes has been demonstrated in several studies.³⁹ Stress, worry, self-efficacy, and the emotional/mental state of an individual related to housing instability may affect an individual's health, which can lead to poorer health outcomes.^{40,41,42,43,44,45} One review found that homeless children were worse off than the general population, both in terms of access to care and health outcomes like behavioral and mental health problems.⁴⁶ The quality and characteristics of housing have also been linked to health conditions, including asthma, lead poisoning, and hypertension.⁴⁷ The Children's HealthWatch also analyzed a survey of caregivers of children under four years of age in five different cities. This study demonstrated that children and families who face unstable, unaffordable housing were at a greater risk of having poor health and developmental delays.⁴⁸ Individuals who are housing unstable have also been found to be more likely to visit an emergency room, have longer hospital stays once admitted, and have higher likelihoods of readmission.^{49,50}

Common Measures and Emerging Practices to Address Food Insecurity

The majority of measures of food insecurity capture estimates at the national and state levels. These measures frequently assess food insecurity based on household food access, acquisition, food consumption, and utilization.⁵¹ The most common measure used to assess food insecurity is the USDA's Household and Food Security Survey Module (FSSM). Variations of the FSSM (18-item, 10-item, and 6-item) are used in widely administered surveys including the Current Population Survey (CPS) Food Security Supplement, the American Housing Survey (AHS), the National Health and Nutrition Examination Survey (NHANES), the National Health Interview Survey (NHIS), and many others. The FSSM has been rigorously tested and validated through several studies. In addition, many screening tools have been developed for providers to begin assessing food insecurity in clinical settings.

The Hunger Vital Sign™ is a commonly used tool. It is a two-question screening tool that allows clinicians to identify households at risk for food insecurity. The validity of the tool has been tested among low-income families, adolescents, and adults, where it was found to have high sensitivity and specificity.⁵² The American Academy of Pediatrics (AAP) briefly endorsed a “yes/no” version of the Hunger Vital Sign™, and the CMS Accountable Health Communities (AHC) screening tool includes an adaptation of the Hunger Vital Sign™.^{53,54} However, a recent study that compared the Hunger Vital Sign™, the USDA six-item screener, and the initial AAP version of the Hunger Vital Sign™ found that the “yes/no” adaptation was inferior to the “often true” or “sometimes true” (versus “never true”) response.^{55,56} Although existing tools track affordability, access, variety, and preferences, these tools may not adequately evaluate whether the food that respondents eat fulfills nutritional needs to encourage healthy living, particularly for those with conditions that

require a more limited diet. Consequently, many who might benefit from referrals to food support services are not identified.

Numerous approaches have been developed to address food insecurity. Among them is SNAP, which offers nutrition assistance to eligible low-income individuals and families. SNAP works with state agencies, nutrition educators, and local and faith-based organizations to help people assess their eligibility for the program. SNAP has been shown to reduce the likelihood of being food insecure in several studies (SNAP participants are less likely to be food insecure than nonparticipants who are eligible).⁵⁷ Medicaid programs can support efforts to identify individuals who are food insecure and connect them to SNAP. For instance, one study found that the use of electronic screening, educational interventions, and empowerment exercises significantly increase the identification rate of households that were food insecure.⁵⁸

There are also several emerging strategies for addressing food insecurity. For example, AARP recommends using the AAP two-item screener to document food insecurity in electronic health records (EHR) and the referral generated in the EHR. An outreach team then follows up with the patient by phone, mail, or in person. AARP has developed guidance for overcoming challenges in implementing food insecurity screening and referral in primary care practices in low-income communities.⁵⁹ The strategies involve linking primary care practices with community partners. For instance, Maryland Hunger Solutions conducts on-site SNAP application screening and enrollment for food insecure patients at Chase Brexton Health in Baltimore. In addition, the Pathways Community HUB Model, which relies on community care coordinators (CCC) (i.e., community-health workers, nurses, social workers, etc.), helps to conduct outreach to at-risk individuals through home visits and community-based work. The evidence base for these strategies is still developing.

Common Measures to and Emerging Practices to Address Housing Instability

Measures and screening tools for housing instability have been developed, but many have not been well studied. Measures of housing instability are limited and vary in their degree of adoption as well as their intended use. There are data available on affordability, overcrowding, and housing quality at the national level and some reliable and valid estimates at the county level, as well as census tract and census block levels (e.g., urban areas). Most data on housing instability and neighborhood quality are collected at the local level. HUD analysts and the housing research community are currently engaged in a multiyear effort to develop a standard survey-based index of housing insecurity. The existing measures and indicators of housing instability, though not mutually exclusive, cluster around quantification of housing instability, the link between housing instability and health and well-being, and the impact on specific populations such as children or individuals with specific health conditions.

A national indicator of housing instability, the prevalence of housing cost burden exceeding 30 percent of income, is assessed through the American Community Survey (ACS), which is conducted by the U.S. Census Bureau.^{60,61} This survey contains a diverse set of questions about housing characteristics and housing costs, and federal assisted housing status is available through administrative data linkages. Responses from the ACS survey have been used to assess whether changes in housing costs have an association to other SDOH and whether these cost changes affect specific subgroups (e.g., individuals who received housing subsidies).⁶² HUD sponsors special tabulations of ACS data known as the Comprehensive Housing Affordability Strategy (CHAS) dataset that summarize prevalence of selected housing problems for small geographic areas such as census tracts.

In addition to the ACS and CHAS, HUD produces Annual Homeless Assessment Reports investigating the extent and nature of homelessness in the United States.^{63,64,65} For these reports, local “continuum of care” coalitions provide counts of people experiencing homelessness and summaries of their demographic characteristics and service use patterns. The assessment is based on local data from Point-in-Time (PIT) counts, Housing Inventory Counts (HIC), and Homeless Management Information Systems (HMIS). The AHS also assesses housing instability and includes a national representative sample of housing costs and quality in the United States.⁶⁶ The AHS included a module on healthy housing in 2011, on risks of homelessness in 2013, and on food security in 2015. This survey collects information on affordability, housing inadequacy, overcrowding, and residential mobility.

Few surveys and tools solely measure housing characteristics. Beyond the assessment of the degree of housing instability, several surveys and tools assess the relationship of housing instability to other social risk factors, health, and well-being. The Behavioral Risk Factor Surveillance Survey (BRFSS) is an example of a survey that assesses multiple aspects of housing instability, including the ability to pay for housing and utilities, the frequency with which an individual moves, and the safety of the neighborhood.⁶⁷ Other surveys are the Three City Study Survey, Fragile Families and Child Wellbeing Survey, National Survey of American Families, the National Survey of Child and Adolescent Well-Being, and the Panel Study of Income Dynamics. These surveys assess SDOH such as socioeconomic status, family background, access to transportation, and social support among adults, children, and adolescents. The information can be used to examine the link between housing instability and mental health, healthy behaviors, emotional well-being, and health outcomes. Additionally, recent linkage of HUD administrative data with national housing surveys of the National Center for Health Statistics

has made it possible to analyze health outcomes, health access, and Medicaid expenditure data for assisted renter populations.⁶⁸

Tools and surveys have also been designed for anticipated use in healthcare. Common examples of these tools are The Protocol for Responding to and Assessing Patients' Assets, Risks and Experiences (PRAPARE), Health Leads Social Need Screening Toolkit, HealthBegins Upstream Risk Screening Tool, and the CMS-developed Accountable Health Communities Screening Tool. The AHRQ Primary Care Quality-Homeless (PCQ-H) Survey (33 items) also has four subscales that assess whether the primary care provider met the patient's homelessness needs. These surveys and tools often contain implementation plans as well as specific guidance for integration with healthcare data.

Looking forward, there are promising practices that aim to leverage collaborations between the community and healthcare system. For instance, Camden Coalition of Healthcare Providers started an initiative known as "healthcare hotspotting"

that focuses on high utilizers of hospital care.⁶⁹

Healthcare hotspotting is the use of data that identify high costs and vulnerable individuals.

Gathering these data points, Camden collaborated with hospitals, primary care providers, and other community stakeholders to coordinate care for individuals to address both their medical and social needs such as housing.⁷⁰ In 2017, the Urban Institute published a research paper that details common themes in building effective, sustainable partnerships around housing and health.⁷¹ The research leveraged existing literature, expert input, and six in-depth case studies throughout the United States. In addition, organizations like Hennepin Health in Minnesota, a Medicaid accountable care organization, has partnered with social service agencies to address housing needs using a "housing first approach" by getting individuals stably housed and then addressing other needs like medical care, education, and employment assistance. Hennepin found a decrease in hospital admissions and emergency department use, and an increase in outpatient visits.⁷²

MEDICAID PROGRAMS ADDRESSING FOOD INSECURITY AND HOUSING INSTABILITY

Several Medicaid programs have begun using SDOH data to foster collaboration and partnerships, payment, and public reporting to address food insecurity, housing instability, and other social needs. For example, several states use SDOH data to adjust rates of payments to managed care and accountable care organizations, structure performance measures to account for differences in patient populations, reduce health disparities, and determine additional supports and benefits for care coordination. Many states have already identified food insecurity and housing instability as priority domains of measurement. There have also been efforts to link Medicaid data files with national surveys like the CPS and the NHANES. However, the use of these data is hampered because the estimates do not necessarily reflect the temporal patterns of social needs.⁷³

One of the most promising data collection activities is the Accountable Health Communities Model, which aims to provide comprehensive screening of the social needs of community-dwelling Medicare and Medicaid beneficiaries. Medicaid programs, bridge organizations, community service providers, and clinical delivery sites are working together to screen and coordinate care to address housing instability and food insecurity among other social needs. Participating organizations are required to report information on both food insecurity and housing instability and how screening affects clinical workflows. If successful, the AHC model could serve as a foundation for future coordination and measurement efforts. In addition, the Medicaid Innovation Accelerator has also provided resources to several states (New Jersey, Oregon, Texas, and Virginia) and the District of Columbia to enhance their capacity to improve care coordination for beneficiaries with complex care needs (CCNs) and high costs.

Moreover, in 2015, CMS clarified the housing-related activities and services that are reimbursable by Medicaid. These include services that support an individual's ability to prepare for and transition to housing; support an individual in being a successful tenant in his/her housing arrangement; and support collaborative efforts across public agencies and the private sector to assist in identifying and securing housing options.⁷⁴ Medicaid programs can review their policies on housing-related expenses to help address housing instability. Several states use 1915(b) waivers to cover housing-related services (e.g., Nebraska's Health Connection, Ohio's Integrated Health Care Delivery System, and North Carolina's Cardinal Innovations). Some other examples of how states are beginning to collect and use data related to food insecurity and housing instability include:

- **Massachusetts**, under its recently renewed 1115 waiver, developed a "Social Determinant of Health Model" to allow the Medicaid program to risk adjust performance measures based on social risk factors. The state linked claims data, plan encounter data, and data from other state agencies as well as the U.S. Census Bureau to develop measures that assess factors like unstable housing and neighborhood stress.⁷⁵
- **Minnesota** has built a large SDOH data set by extracting elements from claims data, EHRs, state and federal databases, and patient self-reported instruments. Patient assessment instruments that assess food insecurity and housing instability at the patient level include the AHC tool, Health Leads, and the PRAPARE tool.⁷⁶
- **New Jersey** recently received a five-year extension on its 1115 waiver that includes reinvestment dollars targeting housing support services to individuals who are homeless or

at risk of being homeless. The program is also aiming to enhance population health partnerships with community and faith-based organizations, public health organizations, employers, and other stakeholders to improve outcomes for beneficiaries. Sharing beneficiary information across state agencies and implementing data use agreements that ensure confidentiality have supported and strengthened these initiatives.⁷⁷

- **Connecticut** has embedded several strategies to connect programs to address social factors. The agency has been able to integrate screening of housing stability and food security through its Administrative Services Organization structure and Intensive Care Management. It has also increased SDOH targeted care through health homes, the Money Follows the Person “housing plus services” model, and development of an upside-only shared savings initiative.
- **Pennsylvania** developed the COMPASS website, which allows individuals and community-based organizations to screen, apply for, and renew benefits across a range of programs. These programs include SNAP, free or reduced price school meals, home and community-based services, and the Low-Income Home Energy Assistance Program.⁷⁸
- **Oregon** developed a data inventory to help people find affordable housing more easily. The inventory provides a list of affordable properties in a user-friendly format and integrates data from Oregon Housing and Community Services, HUD, U.S. Department of Agriculture and Rural Development, and the Oregon Opportunity Network.⁷⁹ Oregon’s Health Authority has also developed a provider-level food insecurity screening performance measure that coordinated care organizations (CCOs) can choose for reporting and accountability.
- **Illinois** has a long-standing integrated system, which determines eligibility for medical programs, SNAP, and Temporary Assistance for Needy Families.⁸⁰
- **Louisiana**, through its 1915c waiver, has integrated its Permanent Supportive Housing program (PSM) with its Home and Community-Based Services (HCBS) program. HCBS providers, particularly those involved in health and housing services, assist in enrolling eligible patients with a focus on individuals who are homeless.

These are a few of many examples of how states are investing in community and healthcare system linkages, measuring and sharing data on social needs, and enhancing payment methods to account for social risk factors.

RECOMMENDATIONS

The Expert Panel identified a set of recommendations for Medicaid programs, which build on and affirm previous recommendations, to support the connection of health and nonhealth services that can address SDOH. Several states have already made significant progress on each of the recommendations but continue to face many challenges in implementation. The recommendations support the framework by highlighting opportunities for better measurement and data sharing. The Expert Panel categorized its recommendations: (1) community and healthcare system linkages; (2) information sharing and measurement; and (3) payment methods and innovative use of resources.

Community and Healthcare System Linkages

RECOMMENDATION: Acknowledge that Medicaid has a role in addressing social determinants of health.

Healthcare organizations are often able to influence the communities in which they serve, and many are anchor institutions within the community. Not only is the healthcare system in a prime position to address SDOH, but doing so would benefit the healthcare organizations themselves as well as lower costs and improve health outcomes. Safety-net hospitals have begun to screen patients for food insecurity, housing instability, and other SDOH and refer these patients to community resources to help meet their social needs. Further, many hospitals are pursuing community-integrated healthcare (i.e., collaborating with local organizations, starting intervention programs, etc.). Medicaid programs can be instrumental in supporting these efforts. Opportunities exist for healthcare institutions to collaborate with local governments in connection with housing assistance, homeless services, and community development efforts. Medicaid

programs should support efforts to learn more about best practices for accommodating SDOH informed healthcare in routine clinical care.

As local nonprofit hospitals undertake mandatory CHNAs that can support SDOH Targeted Healthcare they should be cognizant that local jurisdictions periodically develop consolidated plans in connection with federal formula grant resources that include assessments of affordable housing needs and fair housing challenges.⁸¹ Similarly, public housing authorities, many of which serve large disadvantaged populations, also develop five-year plans.⁸² Public health objectives could be usefully integrated into housing plans, and housing considerations into health needs assessments. The Expert Panel cautioned, however, that the healthcare system is only one participant in the larger effort to tackle these issues.

RECOMMENDATION: Create a comprehensive, accessible, routinely updated list of community resources.

Healthcare organizations need routinely updated, comprehensive lists of local community services that could be accessed, as well as standardized partnerships and processes for coordinating access (e.g., community healthcare needs assessment). This is particularly important for Medicaid programs, which cover many different communities, each with a unique set of available resources. Data are important to understand the demand for services and the available supply of services to address them. The Expert Panel recognized the challenges of keeping a catalogue updated, but recommended it as a key component of establishing the healthcare and community linkages. One example is a program led by the University of Chicago, Community Rx, which developed a real-time automated system that links patients to up-to-date information about community-based services and resources.⁸³ Another example is from the Oregon Food Bank.

This food bank provides an EHR-compatible list of the food and nutrition education resources available in every Oregon county in 13 languages. The availability of this list was key in the state's adoption of a food security and intervention performance measure, which now is implemented in over 300 sites.⁸⁴

Information Sharing and Measurement

RECOMMENDATION: Harmonize tools that assess social determinants of health.

Many data collection tools have been developed to assess social needs. The environmental scan revealed dozens of measures and tools at the population level and patient level that assess food insecurity and housing instability. The Expert Panel recommended that stakeholders look for commonalities between these tools and identify the best in class, while allowing flexibility in how the questions are asked, given the many differences in patient populations served within and across communities. The Expert Panel acknowledged that the tools do not necessarily need to be the same, but there should be agreement on the type of information collected and documented for a given person. Medicaid programs and commercial health plans should collaborate to identify a common set of measures or indicators to assess food insecurity and housing instability. The healthcare system needs to use similar measures to allow for comparability across health systems and reduce provider burden (i.e., reduce the incidence of multiple reporting requirements for different measures that assess the same social needs).

RECOMMENDATION: Create standards for inputting and extracting social needs data from electronic health records.

Electronic health records (EHR) are an important source of patient-level and population health-level information on social needs. However, there

is no standardization on the data input fields for collecting information on social needs, and there are standardization barriers due to the lack of interoperability. The Expert Panel emphasized the need to create consensus on the inputs as well as the outputs for social needs data in EHRs. Standardizing these data fields will enable better sharing of information between health and nonhealth providers and programs. For example, ICD-10 uses “Z” codes (similar to the “V” and “E” codes used in ICD-9) to capture information like homelessness and lack of adequate food and safe drinking water. However, standards cannot exclusively focus on diagnostic codes, but need to also include coding standards for screening and treatment activities related to SDOH like food insecurity and housing instability. In addition, there must be alignment of topics/subtopics related to SDOH on how data can be captured to allow for comparisons across tools, providers, and settings. A comprehensive infrastructure for collecting social needs data would enable a provider to precisely link patients with the community resources based on their social needs.

RECOMMENDATION: Increase information sharing between government agencies.

Data sharing between government agencies is minimal. There are many barriers to sharing data, from privacy concerns to inadequate IT infrastructure. However, many states are collecting data on housing (e.g., KS, MA, MI, NY, OR, TN, VT, WA) and food security (e.g., MA, MI, OR, TN, VT, WA) and are beginning to link these datasets.⁸⁵ Massachusetts, Washington, and Vermont are linking existing state and federal data including hospitalization data, vital records, and household survey data.⁸⁶ For example, Massachusetts has linked over 300 data systems across state agencies. To address privacy concerns, The Administration for Children and Families (ACF) had also developed a confidentiality toolkit that supports state and local efforts to bring clarity to rules governing confidentiality, ACF, and related programs. The toolkit provides examples on how

confidentiality requirements can be met in a manner that is fully consistent with governing laws while limiting impediments to data sharing that would help to address SDOH.⁸⁷ As states continue to build the infrastructure and partnerships to share data across agencies, there will be more opportunities to develop measures to track whether individuals are receiving services to address their social needs and how those services affect health outcomes.

Medicaid programs are beginning to coordinate with social service programs to share information for identifying beneficiaries with social needs (e.g., KS, MA, MI, NY). Learning communities such as Data Across Sectors for Health (DASH) and All In: Data for Community Health are examples of successful initiatives of data sharing across health and nonhealth sectors. Still, many meaningful connections have not yet been made. There are other data sources that can be used to determine an individual's social needs, which have not been considered for informing healthcare delivery. For example, knowing which patients are enrolled in the SNAP, their demographic characteristics, and if they are using their benefits could aid a healthcare provider. Data sharing in the opposite direction is equally beneficial; a healthcare organization communicating to an appropriate social service organization which of its members are eligible but not enrolled in SNAP would ultimately reduce food insecurity rates. Likewise, information on individuals enrolled in supportive housing programs or those who are on waiting lists could be potential indicators of housing instability.

Opportunities also exist to explore the use of data beyond those collected by government entities or in clinical encounters. However, there are fewer examples of this type of information sharing between the community and healthcare system. A potential example would be the use of passive forms of data collection, such as information provided through medical devices or apps on smartphones to inform healthcare delivery.⁸⁸ Numerous technology, legal, and proprietary

barriers make data sharing a challenge, but there are opportunities for the healthcare system to convene nonhealth sector organizations, particularly at the community level.

Payment Methods and Innovative Use of Resources

RECOMMENDATION: Expand the use of waivers and demonstration projects to learn what works best for screening and addressing SDOH.

States continue to experiment with Medicaid waivers to address social needs (e.g., 1115 and 1915c). For example, Oregon Health Authority uses CCOs through the 1115 Medicaid waiver authority to pay for services offered by a diverse group of stakeholders including community health workers, peer wellness specialists, and patient navigators. CCOs covers services that provide housing supports and assistance with food and other social resources. This not only expands access to social services, but also significantly reduced per-member per-month inpatient and outpatient spending.⁸⁹ Many other states such as Illinois, Louisiana, Massachusetts, and New York have all used waivers to provide permanent supportive housing for high-risk populations (e.g., serious mental illness).⁹⁰ In addition to Section 1115 and 1915c demonstration waivers, states have seen success through the State Innovation Models, Innovator Accelerator Program, Strong Start, and other Medicaid incentive programs that account for the unique social challenges that many Medicaid and uninsured patients may face. The Expert Panel recommended that states continue to expand the use of waivers as more and more states are demonstrating the positive effects of connecting health and nonhealth services.⁹¹

CONCLUSION

The framework and recommendations offer state Medicaid programs a systematic approach to SDOH data collection and use. Food insecurity and housing instability are critical SDOH factors that states can begin or continue to take action to reduce. A growing body of evidence demonstrates a link between food insecurity, housing instability, and a negative impact on health outcomes. Medicaid programs are confronted with a unique opportunity to leverage their influence to effect positive change in the health of the communities they serve beyond the walls of healthcare organizations. Numerous programs and healthcare organizations are beginning to reorganize their practices to meet this challenge. One of the primary obstacles to achieving this goal is the lack of a rich source of data on SDOH, which are not yet routinely collected or linked in ways that can support SDOH informed and SDOH targeted care.

State Medicaid programs can play a role in overcoming this barrier by strengthening linkages between the community and healthcare systems, facilitating the exchange of information, and leveraging payment methods and incentivizing

the discovery of new ways to deliver care and the adoption of best practices. The environmental scan of measures and literature review prioritized a discussion of patient-level measurement and reporting. Future work should focus on when patient-level versus population-level measures are feasible and/or appropriate for use. For instance, when area-based measures (e.g., Massachusetts Medicaid neighborhood stress score) are appropriate for use for payment and/or risk adjustment.

Looking forward, Medicaid programs should continue share best practices as they begin expanding their role to address SDOH. State Medicaid programs should leverage their role as a major payer for health services to coordinate partnerships between health systems and community service providers, incentivize data collection, and link Medicaid enrollee data to other data sources that can be used to assess social needs like food insecurity and housing instability. Ultimately, these efforts will lead to a more holistic approach to improve the health populations with the greatest need.

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APPENDIX A: Expert Panel and NQF Staff

Expert Panel Chair

Romana Hasnain-Wynia, PhD, MS
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Denver, Colorado

Expert Panel Members

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Sarah Hudson Scholle, DrPH, MPH
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Director of Arnhold Institute for Health,
Chair of Department of Health System Design and
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Ginger Zielinskie, MBA
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Senior Director

Andrew Anderson, MHA
Senior Director

Jean-Luc Tilly
Senior Data Analytics Manager

Vanessa Moy, MPH
Project Analyst

APPENDIX B: Methodology

The environmental scan comprises of a three step approach, which includes a literature review, measure review, and key informant interviews. NQF conducted a systematic review of the literature that included a search strategy with inclusion and exclusion criteria. NQF used the parameters defined in Table A1.

TABLE A1. SEARCH PARAMETERS

Included	Excluded
<ul style="list-style-type: none"> • Developed or published after 2000 OR originally published prior to 2000 and still current • Measures that include specifications that meet the operational definition of food and housing insecurity • Instruments, scales, survey tools, and surveys 	<ul style="list-style-type: none"> • Published before 2000 and not current • Not available in English • Published outside of the United States • Does not include required data elements

Information sources were identified through various resources such as PubMed, Academic Search Premier, as well as grey-literature and web searches through Google Scholar to identify reports, white papers, and other documentation related to food insecurity and/or housing instability. NQF used various combinations of key words such as food insecurity, food secure, hunger, homeless, homelessness, housing instability, housing insecurity, housing, and assistance. These key words were combined with terms like review, assessment, measure, measurement, or screening.

NQF initially reviewed over 150 abstracts and used a prioritization method to rank each information source on a scale of one to five (1=lowest and 5=highest) based on the operational definitions, research questions, and a set of three criteria (shown below). Sources that scored four or higher were included in the environmental scan findings and were determined to be highly relevant in measuring food insecurity and/or housing instability.

- *Food insecurity* (U.S. Department of Agriculture) is the limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways.¹
- *Housing Instability* (U.S. Department of Health and Human Services) is high housing costs in proportion to income, poor housing quality, unstable neighborhoods, overcrowding, or homelessness.²

Research Questions

- What are the most common concepts of food and housing insecurity measured in the literature?
- What measures that address food and housing insecurity currently exist?
- What are the key challenges to measuring food and housing insecurity?
- What are the opportunities for measurement of food and housing insecurity?
 - *Criterion 1:* The information source is relevant to one of the four research questions.
 - *Criterion 2:* The content of the information source addresses concepts of food insecurity and/or housing instability.
 - *Criterion 3:* The content of the information source is derived from a sound approach and clearly describes measurement related to food insecurity and/or housing instability.

NQF identified over 80 key information sources.

1 Andersen SA, ed. Core indicators of nutritional state for difficult-to-sample populations. *J Nutr.* 1990;120:1557S-1600S.
 2 Johnson A, Meckstroth A. Ancillary services to support welfare to work website. <http://aspe.hhs.gov/hsp/isp/ancillary/front.htm>. Last accessed October 2017.

These sources aligned with the research questions, had relevant findings, or described the use of a conceptual framework related to food insecurity and/or housing instability. Any source that did not meet criterion 1 was not included in the environmental scan findings. NQF staff then synthesized the sources and compiled a list of surveys and tools that measure food insecurity and/or housing instability.

Lastly, NQF interviewed key informants as a supplement to the review of the literature and environmental scan. The interviews offered qualitative insight into the key research questions informing the project’s research strategy. Key informants were selected on the basis of their role and expertise in either food insecurity, housing

instability, or both. Key informants occupy leadership roles in organizations intervening to mitigate the incidence and impact of food insecurity and housing instability, including public health departments, food banks, and clinics. Key informants are experts in their fields, with background in epidemiology, medicine, public assistance programs, and health IT. In early November, NQF hosted a key informant web meeting and an interview call with experts on food insecurity and housing instability. These individuals were selected for their expertise outside of the healthcare system, bringing many years of experience in measurement, instrument development, and community-oriented development and interventions. Table A2 lists the key informants.

TABLE A2. KEY INFORMANTS

Informant	Relevant Experience	Organization
Philip Alberti, PhD	An epidemiologist with a research focus on efforts to build evidence-based programs, protocols, policies, and partnerships effective at eliminating inequities in health and healthcare.	Association of American Medical Colleges (AAMC)
Lindsey Browning, MPP	Experience in Medicaid programs, specifically delivery systems and payment reforms.	National Association of Medicaid Directors (NAMD)
George Carter, PhD	Experience and expertise in housing, specifically worst-case needs, subsidized housing, and elderly housing.	HUD
Peter Eckart, MA	Health information exchange with food insecurity and housing instability.	Illinois Public Health Institute (IPHI) Online
Gillian Feldmeth	Knowledge of state Medicaid programs, specifically how healthcare organizations and community organizations can collaborate with one another to address individuals’ social needs.	University of Chicago
Craig Gundersen, PhD	Research focuses on the causes and consequences of food insecurity and evaluates food assistance programs, specifically SNAP.	University of Illinois at Urbana-Champaign
David Lee	Experience in community relations, public affairs, hunger relief, and food systems programming along with advocacy in food.	Feeding Wisconsin
Stacy Lindau, MD, MA	Director, South Side Health and Vitality Studies, which includes CommunityRx and Feed1st. Feed1st is a hospital-based hunger mitigation effort that operates six self-serve pantries in child and adult clinical settings.	University of Chicago

Informant	Relevant Experience	Organization
Matthew Rabbitt, PhD, MA	An economist with a research focus on food security measurement, food, and nutrition assistance programs.	USDA
Bob Rauner, MD, MPH	Led community efforts to improve health by decreasing obesity rates and the association to food and nutrition.	Partnership for a Healthy Lincoln
Barry Steffen, MS	Experience and expertise in housing affordability and housing insecurity issues.	HUD
Nicole Watson	Led HUD working groups on Housing Insecurity Survey Module.	HUD
Anita Yuskas	Experience working with CMS, specifically quality in home and community-based services.	Pennsylvania State University

APPENDIX C: List of Surveys and Tools

Food Insecurity: Common Measures of Surveys and Tools

Name	Description	Use	Service Setting	Source
18-item Household Food Insecurity Access Scale (HFIAS)	The questionnaire (18 items) consists of nine occurrence questions that represent a generally increasing level of severity of food insecurity (access), and nine “frequency-of-occurrence” questions that are asked as a follow-up to each occurrence question to determine how often the condition occurred. It asks about respondent perceptions of food vulnerability or stress and behavioral responses to insecurity. It focuses on food insecurity in terms of access.	Federal	USAID Title II and Child Survival and Health Grant programs	USAID
Addressing Food Insecurity: A Toolkit for Pediatricians	This toolkit was created to aid pediatricians in addressing patient food insecurity. It provides information about the prevalence of food insecurity, how food insecurity impacts children’s health outcomes, how to screen for food insecurity, and interventions that help address food insecurity, including federal nutrition programs like SNAP, WIC, and school and summer feeding programs.	State	Family medicine practice	American Academy of Pediatrics
U.S. Household Food Security Survey Module	The survey module (18-item, 10-item, and 6-item versions) measures the severity of deprivation in basic food needs as experienced by U.S. households. Extensive testing established the validity and reliability of the scale and its applicability across various household types in a broad national sample.	State and Federal	Personal and telephone interviews	USDA

Food Insecurity: Interventions with Tools and Surveys

Name	Description	Use	Service Setting	Source
Connecting Those at Risk to Care: The Quick Start Guide to Developing Community Care Coordination Pathways	<p>The Pathway tool is used to confirm that interventions have been received by the individual and that identified risk factors have been successfully addressed. A community care coordinator (CCC) completes a comprehensive assessment of health, social, behavioral health, economic, and other factors that place the individual at increased risk. The Pathway tool also serves as the quality assurance and payment tool, and the CCC uses it to ensure that each risk factor is addressed and that outcomes have improved.</p>	Local and State	Home visits and community-based	Agency for Healthcare Research and Quality (AHRQ); January 2016
Hunger Vital Sign	<p>Two-question screening tool, suitable for clinical or community outreach use, that identifies families with young children as being at risk for food insecurity if they answer that either or both of the following two statements* is 'often true' or 'sometimes true' (vs. 'never true'):</p> <ul style="list-style-type: none"> • "Within the past 12 months we worried whether our food would run out before we got money to buy more." • "Within the past 12 months the food we bought just didn't last and we didn't have money to get more." 	Local and State	Community clinics Health departments Hospitals Community health center	Children's Health Watch
Implementing Food Security Screening and Referral for Older Patients in Primary Care: A Resource Guide and Toolkit	<p>This resource guide from the AARP Foundation and IMPAQ International seeks to address some of the challenges of incorporating food security screening and referrals in primary care settings serving individuals aged 50 and older. The information provided is specific to that population wherever possible; when research is cited that only applies to specific age groups, that is noted in the text. Intended for use by healthcare systems, clinics, and accountable care organizations, the content of the guide synthesizes findings from case studies conducted with health systems that have incorporated food security screening and referral and an environment scan identifying implementation strategies and methods for screening and referral.</p>	Local and State	Intended for use by healthcare systems, clinics, and accountable care organizations	AARP

Housing Instability: Common Measures of Surveys and Tools

Name	Description	Use	Service Setting	Source
American Community Survey	A 24-item questionnaire household survey with a diverse set of questions that asked monthly housing costs, housing units, and rental costs. A couple of questions from this survey are used in a study to assess whether changes in housing costs have an association to increased food insecurity in low-income households with children and whether these cost changes affect specific subgroups (e.g., individuals who received housing subsidies).	State and Federal	Interviews	United States Census Bureau; Fletcher JM, Andreyeva T, Busch SH. Assessing the effect of changes in housing costs on food insecurity. <i>J Child Poverty</i> . 2009;15(2):79-93.
Annual Homeless Assessment	The Annual Homeless Assessment is on the extent and nature of homelessness in the United States. It provides counts of people experiencing homelessness and describes their demographic characteristics and service use patterns. The assessment is based on local data from Point-in-Time (PIT) counts, Housing Inventory Counts (HIC), and Homeless Management Information Systems (HMIS).	State and Federal	Community, Provider	United States Department of Housing and Urban Development (HUD)
Behavioral Risk Factor Surveillance System (BRFSS) Survey	A survey that has questions to assess the frequency of housing insecurity when respondents answered “always,” “usually,” “sometimes” to the question “How often in the past 12 months would you say you were worried or stressed about having enough money to pay your rent/mortgage?”. The exact same question was asked about buying nutritious meals. The survey also asked questions about socioeconomic status and demographics.	State	Telephone interviews	Centers for Disease Control and Prevention (CDC)
Fragile Families and Child Wellbeing Survey	The survey module (13 items) covers demographics, medical records, family background characteristics, socioeconomic status, and housing attributes. This survey may help inform whether the child and its family may have increased likelihood of housing instability, particularly overcrowding and homelessness.	Local and State	Personal interviews, Hospitals	Princeton University; Columbia University; Curtis MA, Corman Noon K, et al. Effects of child health on housing in the urban U.S. <i>Soc Sci Med</i> . 2010;71(12):2049-2056.

Name	Description	Use	Service Setting	Source
National Survey of American Families	A household survey that looks at quantitative measures of children, adults, and their families usually at the state level who are low-income. One study used this survey as a secondary data analysis to determine income's effect on healthcare access and healthcare outcomes.	Federal	Personal and telephone interviews	Urban Institute; Child Trends; Kushel MB, Gupta R, Gee L, et al. Housing instability and food insecurity as barriers to healthcare among low-income Americans. <i>J Gen Intern Med.</i> 2006;21(1):71-77.
National Survey of Child and Adolescent Well-Being II (Second Cohort) (NASCAW II)	The survey comes from a national sample that measures a child's well-being. The child's caregiver and caseworker responses were mainly used to measure housing instability. For instance, these responses were used as housing insecurity indicators (i.e., doubled up, emergency housing, homelessness).	Federal	Personal interviews	United States Department of Health and Human Services; Font SA, Warren EJ. Inadequate housing and the child protection system response. <i>Child Youth Serv Rev.</i> 2013;35(11):1809-1815.
Primary Care Quality-Homeless (PCQ-H) Survey	<p>A 33-item survey that has four subscales that assess whether the primary care provider met the patient's homeless needs.</p> <p>Overall Score Measure: This patient-reported outcome measure is used to assess the overall mean score for the Primary Care Quality-Homeless (PCQ-H) instrument subscales. The four subscales are patient-clinician relationship, cooperation among clinicians, access/coordination, and homeless-specific needs.</p> <ul style="list-style-type: none"> • Numerator: The sum of patients' responses ("Strongly Disagree," "Disagree," "Agree," "Strongly Agree" and "I Don't Know") to items on the Primary Care Quality-Homeless (PCQ-H) instrument. • Denominator: Number of items responded to by homeless patients on the Primary Care Quality-Homeless (PCQ-H) instrument. 	Local and State	Provider, Community Health Center	AHRQ National Quality Measures Clearinghouse

Name	Description	Use	Service Setting	Source
Person-Per-Room (PPR) Measure	A measure that is most commonly studied in literature reviews about overcrowding in housing. Overcrowding is defined as more than one person per room. In other words, when more than one individual resides in a room that does not follow housing standards size/capacity for an individual, which results in unsafe and unhealthy conditions.	State and Federal	Case study	U.S. Department of Housing and Urban Development; Blake KS, Kellerson RL, Simic A. Measuring Overcrowding in Housing. Washington, DC: Housing and Urban Development; 2007.
Three-City Study Survey	A survey that questions the well-being of low-income children and families residing in Boston, Chicago, and San Antonio. A study used this survey as a baseline and added four-item questions to assess the association of low-income children's and adolescents' housing and its effects on their emotional, behavioral, and developmental well-being. The additional questions were on physical quality (8-item self-report, plus Home Observation for Measurement of the Environment Short Form), cost burden (total cost/income), instability (move in prior year), and type (assisted, rent, own).	Local and State	Personal interviews	Coley RL, Leventhal T, Lynch A, et al. Relations between housing characteristics and the well-being of low-income children and adolescents. Dev Psychol. 2013;49(9):1775-1789.

Housing Instability: Interventions with Tools and Surveys

Name	Description	Use	Service Setting	Source
Hierarchical Resources Approach Survey	A survey that assessed housing instability (one question), food insecurity (three questions), transportation access, ability to access services, social support (14 items), and self-efficacy (12 items) along with demographic information. This survey assessed whether the competing demands of food insecurity and/or housing instability would hinder access to interpersonal/personal resources which could affect self-efficacy (e.g., following doctor's orders on antiretroviral therapy (ART) adherence).	Local and State	Personal interviews, Community and Social Service Agencies, Infectious Disease Clinics	Cornelius T, Jones M, Merly C, et al. Impact of food, housing and transportation insecurity on ART adherence: a hierarchical resources approach. <i>AIDS Care</i> . 2017;29(4):449-457.
TAY (Transition Age Youth) Triage Tool	A six-item screening tool. The tool assesses and prioritizes youth who need housing, particularly vulnerable youth. Vulnerable youth are identified as individuals who encounter traumatic experiences in life such as domestic violence, physical/sexual abuse, and/or substance abuse. Providers believed the tool is useful in case management since it identifies vulnerable youth who need housing interventions/support immediately.	Local and State	Health systems, Community, Provider	Rice E. The <i>TAY Triage Tool: A Tool to Identify Homeless Transition Age Youth Most in Need of Permanent Supportive Housing</i> . New York, NY: Cooperation for Supportive Housing (CSH); 2013.
Veterans Transitional Housing Program Survey	A survey conducted before a veteran entered transitional housing, after admission to transitional housing, and follow-up interviews after program discharge (at 6 and 12 months). A structured form of questions were asked about their sociodemographic characteristics, combat exposure, housing, work history, psychiatric diagnoses, a brief hospitalization history, and an assessment of mental and physical health status. Specific housing questions to veterans include the number of days in the last month they had slept in nine different types of places (e.g., housed-apartment, home, institution, or homeless).	Local and State	Personal interviews, Community, Provider	Tsai J, Rosenheck R, Mcguire J. Comparison of outcomes of homeless female and male veterans in transitional housing. <i>Comm Ment Health J</i> . 2012;48(6):705-710.

Food Insecurity and Housing Instability: Common Measures of Surveys and Tools

Name	Description	Use	Service Setting	Source
Accountable Health Communities Screening Tool	A 10-item screening tool to identify patient needs in five different domains that can be addressed through community services (housing instability, food insecurity, transportation difficulties, utility assistance needs, and interpersonal safety). Clinicians and their staff can use this short tool across a spectrum of ages, backgrounds, and settings, and it is streamlined enough to be incorporated into busy clinical workflows. Just like with clinical assessment tools, results from this screening tool can be used to inform a patient’s treatment plan as well as make referrals to community services.	Local and State	Community service provider	Centers for Medicare & Medicaid Services (CMS)
Health Leads Social Needs Screening Toolkit	This toolkit provides screening best practices, a questions library, and a sample recommended screening tool for some of the most common unmet social needs: food insecurity, housing instability, utility needs, financial resource strain, transportation, exposure to violence, and sociodemographic information.	Adaptable to Local, State, and Federal	Adaptable to all populations, scope, and settings	Health Leads
HealthBegins Upstream Risk Screening Tool	This social needs screening survey contains questions on education, employment, social support, immigration, financial strain, housing insecurity and quality, food insecurity, transportation, violence exposure, stress, and civic engagement. The survey also includes recommended screening frequency for each question and a scoring system to calculate an overall upstream risk score. The tool incorporates measures from the Institute of Medicine’s recommended social and behavioral domains and measures for electronic health records.	Local	Clinic Community Health Center	Health Begins
IHELP Pediatric Social History Tool	IHELP is a screening tool initially presented by Kenyon et al. in 2007 as a tool for collecting pediatric social histories. As a result, it includes both household needs (financial strain, insurance, hunger, domestic violence, housing stability, and housing conditions) and several child-specific domains (child educational needs, child legal status, and power of attorney/guardianship). The tool uses questions similar to those in the Hunger Vital Sign to assess food insecurity.	Local	Healthcare settings	Kenyon C, Sandel M, Silverstein M, et al. Revisiting the social history for child health. <i>Pediatrics</i> . 2007; 120(3):e734-e738.

Name	Description	Use	Service Setting	Source
iScreen	iScreen is a social screening instrument used in one randomized controlled trial on screening validity, acceptability, and modality. The instrument includes 23 questions covering 16 psychosocial domains, including health insurance, healthcare access, behavioral and mental health, educational resources, housing quality and insecurity, financial strain, food insecurity, public benefits, child care, transportation, employment, safety issues, incarceration, child support, and immigration.	Local and State	Emergency Department	Gottlieb L, Hessler, Long D, et al. A randomized trial on screening for social determinants of health: the iScreen study. <i>Pediatrics</i> . 2014;134(6):e1611-e1618.
PRAPARE: Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences	The Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences (PRAPARE) is a national effort to help health centers and other providers collect the data needed to better understand and act on their patients' social determinants of health. As providers are increasingly held accountable for reaching population health goals while reducing costs, it is important that they have tools and strategies to identify the upstream socioeconomic drivers of poor outcomes and higher costs. With data on the social determinants of health, health centers and other providers can define and document the increased complexity of their patients, transform care with integrated services and community partnerships to meet the needs of their patients, advocate for change in their communities, and demonstrate the value they bring to patients, communities, and payers.	Local and State	Health Centers	National Association of Community Health Centers
WE CARE Screening and Referral System	WE CARE (Well Child Care, Evaluation, Community Resources, Advocacy, Referral, Education) is a clinic-based screening and referral system developed for pediatric settings. The 12-question WE CARE screening tool assesses needs in six domains: parental educational attainment, employment, child care, risk of homelessness, food security, and household heat and electricity. If parents say that they have a need they are then asked if they would like help with that need and, for food, homelessness, and household utilities, if they are in need of immediate assistance.	Local and State	Hospital-based pediatric clinic	Garg A, Butz AM, Dworkin PH, et al. Improving the management of family psychosocial problems at low-income children's well-child care visits: the WE CARE Project. <i>Pediatrics</i> . 2007;120(3):547-558.

Name	Description	Use	Service Setting	Source
WellRx ToolKit	A validated 11-item questionnaire designed to be utilized at every patient visit, covering the domains of food insecurity, housing, utilities, income, employment, transportation, education, substance abuse, childcare, safety, and abuse. Questions conform to “low literacy.”	Local	Family medicine practice	Page-Reeves J, Kaufman W, Bleecker M, et al. Addressing social determinants of health in a clinic setting: the WellRx pilot in Albuquerque, New Mexico. <i>J Am Board Fam Med.</i> 2016;29(3)414-418.

APPENDIX D: Summary of NQF Member and Public Comments

Executive Summary

America's Essential Hospitals

Maryellen Guinan

Thank you for the opportunity to comment on the draft report, A Framework for State Medicaid Programs to Address Food Insecurity and Housing Instability. Below are comments on this report and the Expert Panel's recommendations on how to improve the integration of health and social services.

America's Essential Hospitals is the leading association and champion for hospitals and health systems dedicated to high-quality care for all, including the most vulnerable. Filling a vital role in their communities, our 325 member hospitals provide a disproportionate share of the nation's uncompensated care and treat more patients who are dually eligible for Medicare and Medicaid than the average hospital. These patients often have multiple comorbidities and chronic conditions and are among the most difficult to treat. Through their integrated health systems, members of America's Essential Hospitals offer primary care through quaternary care, including trauma care, outpatient care in ambulatory clinics, public health services, mental health services, substance abuse services, and wraparound services vital to vulnerable patients.

As noted by the National Academies of Sciences, Engineering, and Medicine (NAM), in its series of reports on accounting for social risk factors in Medicare programs, "achieving good outcomes (or improving outcomes over time) may be more difficult for providers caring for patients with social risk factors precisely because the influence of some social risk factors on health care outcomes is beyond provider control."^[1] America's Essential Hospitals appreciates and supports the work of the National Quality Forum (NQF) to endorse measures through a consensus-building approach and the work of this expert panel to address factors beyond the walls of the hospital, such as food and housing, that affect health outcomes.

[1] National Academies of Sciences, Engineering, and Medicine. Accounting for Social Risk Factors in Medicare Payment. Washington, DC: The National Academies Press; January 2017. <http://nationalacademies.org/hmd/Reports/2017/accounting-for-social-risk-factors-in-medicare-payment-5.aspx>. Accessed November 2017.

SNP Alliance

Deborah Paone

The SNP Alliance is a national leadership organization of managed care organizations and affiliates dedicated to improving total quality and cost performance for persons with complex chronic conditions and advancing integration of health care for individuals who are dually eligible for Medicare and Medicaid. Social determinant of health (SDOH) risk factors such as poverty, housing transience, food insecurity, low education level, living in a poor neighborhood, low health literacy, few social supports, and other characteristics have been empirically shown to significantly impact health outcomes. We have called for particular attention to those who are dually-eligible for Medicare and Medicaid, as these individuals have higher SDOH factors and may experience greater fragmentation in care and support between the two programs. The work of this Expert Panel provides additional and important analysis on two key social risk factors that affect many special needs plan beneficiaries.

U.S. Department of Housing and Urban Development

Barry Steffen

Page 2, paragraph 2:

The general nature of the description of "housing instability" masks the considerable uncertainty about how it is best defined, and even whether "instability" is the most useful concept.

"Housing insecurity," for example, might better capture risky situations that arise from a household acquiring a perfectly stable and high-quality housing

unit by accepting extreme housing cost burdens; the resulting shelter poverty severely constrains food security, preventive health care, and other prohealth goods and services.

The reference to “relative cost” is ambiguous in the sentence “Measurement of housing instability generally clustered around measuring relative cost, homelessness, housing quality, and overcrowding.” Suggest substituting “housing cost burden.”

Urban Institute

Lisa Dubai

Social determinants of health (SDOH) are the most influential factors that determine the health outcomes of individuals.-This is an overstatement. They are important, I think health care is also important.

Background

Director of Arnhold Institute for Health, Chair of Department of Health System Design and Global Health at Mount Sinai Health System

Prabhjot Singh

- There is an enormous amount of data, synthesis, analysis on these topics that isn’t referenced directly from state medicaid authorities. Here is just one: https://www.health.ny.gov/health_care/medicaid/redesign/supportive_housing_initiatives.htm. The Federal Reserve has a intensive focus on the health / housing intersection, as does CDFI organizations like Enterprise Partners: <https://www.enterprisecommunity.org/resources/impact-affordable-housing-families-and-communities-review-evidence-base-13210>.
- The macro fiscal picture on states that is placing state medicaid authorities under huge stress isn’t acknowledged here — it’s driving an urgency to look at significant policy redesign beyond the waivers program. This is important because some of the otherwise ethereal recommendations “data sharing,” for instance, have context for why they aren’t just wishes if presented correctly.
- There is no problem statement, aim, or purpose that is clearly identified in this document. It’s hard to understand if the framework might be successful, or

what is being laid upon this framework.

- It is also ahistoric (where are we now, where did we come from, where are we going?) and does not present the slice of the universe that it chooses to focus upon. We find ourselves in food insecurity (what part of it??) and housing instability (what part of it??), and then off-handishly in health systems targeted recommendations without much context.

National Committee for Quality Assurance (NCQA)

Sarah Scholle

Page 4: we don’t agree that “relatively few studies have documented its [food insecurity’s] effect on health and healthcare outcomes” . The “recent review” cited is from 2015. There have been a number of additions to the literature in the past year.

U.S. Department of Housing and Urban Development

Barry Steffen

Page 4, paragraph 4: Suggested replacement:

According to the US Department of Housing and Urban Development (HUD), in 2015, 8.3 million renters have worst case housing needs for decent, affordable housing, which places them at high risk of housing instability.⁸ Worst case housing needs are defined as renter households with very low incomes (not more than half of the median income in their area) who lack housing assistance and have severely inadequate housing or severe housing cost burdens exceeding half of income.⁹ Individuals who experience worst case needs are at greater risk of homelessness. In 2016, individuals who experience homelessness were 22% children, 69% over the age of 24, and nine percent between the ages of 18 and 24 have experienced homelessness.¹⁰ Of those who were women and children, they stayed in emergency shelter, transitional housing programs, or safe havens. Similarly to food insecurity, most housing instability measures are estimated at the state and national level.

Page 4, paragraph 5: Suggested replacement:

The construct of housing instability is most commonly assessed through the concepts of housing quality, housing cost burden, homelessness, residential instability, neighborhood quality, and overcrowding. Measures of housing instability are

limited and vary in their degree of adoption as well as their intended use. Further, a broader construct of housing insecurity could better capture more complex risks such as a household acquiring a stable and high-quality housing unit by accepting extreme housing cost burdens—resulting in shelter poverty associated with low food security and inadequate health care. The existing measures and indicators of housing instability, though not mutually exclusive, cluster around quantification of housing instability, the link between housing instability and health and wellbeing, and surveys to identify the impact on specific populations such as children or individuals with a specific health condition. HUD analysts and the housing research community are currently engaged in a multi-year effort to develop a standard survey-based index of housing insecurity.

Page 5, paragraph1: Suggested insertion after second sentence:

Among low-income families with children there is a high correlation of housing instability with severe food insecurity.*

*Coleman-Jensen, Alisha and Barry Steffen. 2017. "Food Insecurity and Housing Insecurity." In Tickamyer, Ann R., Jennifer Sherman, and Jennifer Warlick, eds. *Rural Poverty in the United States*. New York: Columbia U.P.

U.S. Department of Housing and Urban Development

George Carter

The discussion of HUD's Worst Case Needs report does not mention that the data source for the Worst Case Needs estimates is the American Housing Survey, which is sponsored by HUD and collected by the Census Bureau.

Urban Institute

Corianne Scally

Worst-case needs are defined as households who are renters, have very low annual incomes (\$17,050-\$28,400), have lack of housing assistance, and have severe rent burden and/or inadequate housing.-Why is lower limit for income not \$0?

Similarly, to food insecurity, most housing instability measures are estimated at the state and national

level-I disagree with this. Homelessness point-in-time estimates are collected at the local level to produce a national estimate. Additionally, while many measures around affordability, overcrowding and quality are collected at national level, there are reliable and valid estimates produced at the county level , as well as census tract and census block levels for areas with large enough populations from which to sample (e.g. urban areas). Most evidence on residential instability and neighborhood quality is collected via local studies.

Where is the evidence on other types of residential instability (e.g. Eviction by Matthew Desmond) and neighborhood quality (e.g. Moving To Opportunity Demonstration by HUD found improved mental health outcomes for mother's who moved to neighborhoods with lower poverty rates).

Urban Institute

Lisa Dubay

Among the primary issues of economic stability are food insecurity and housing instability-These are not primary issues of economic stability. One can have economic stability and also have food insecurity and housing instability. Both of which can be bi products of economic instability

Studies on supportive housing programs-See also <https://www.urban.org/sites/default/files/publication/32706/412899-The-Negative-Effects-of-Instability-on-Child-Development-A-Research-Synthesis.PDF> for a discussion of the effects of residential instability on child health outcomes.

Project Overview

SNP Alliance

Deborah Paone

We endorse the work of this Expert Panel and their recommendations, and urge continued advocacy for connecting systems and programs across service sectors. Individuals move about within their communities -- crossing health, public health, social services, community programs, public and private sectors --as they try to locate/access adequate housing, food, transportation, and other necessities of life. Solutions require cross-sector connections

that can be sustained and are supported through policy, resource distribution, and structures. Impact measures and measurement which require collaboration and cross-sector accountability, can be one lever to support change.

Framework for Addressing Social Needs in Healthcare

Center for Data Management and Translational Research Michigan Public Health Institute

Clare Tanner

Behavioral health? I just heard from a housing supports coordinator who is seeking relationships with behavioral healthcare providers to better provide trauma informed services that will help their residents maintain their housing and eventually find independence.

Transportation is also interrelated with food and housing.

The term targeted healthcare is too healthcare centric. Is that because Medicaid is the audience? Still if collaboration is the goal, would it be better to give it a name like 'coordinated care'?

I don't see 'policy' or 'environment' represented in this graph.

And as I read the report, I feel like an issue that isn't addressed relates to how do we actually invest more in housing and food services?

I think that a focus on referrals to housing & food services is quickly going to lead to serious frustration - these resources are limited. Communities working together can think about how to streamline access, target services, and invest in resources to increase access. Below, you mention anchor institutions. This is just one way that healthcare organizations can participate in community. Health systems have policy & lobbying arms.

"targeted healthcare"-Does this need to be termed 'targeted HEALTHcare'? This is going beyond healthcare - maybe targeted care? or coordinated care?

At the meeting, i thought we talked about two things:

1. health systems can play a convenor role -through the required CHNA/CHP process - to bring the

community together; hospitals can also participate in collective impact activities led by other sectors.

2. healthcare organizations are much broader than just health systems. I would go back to Hennepin health to learn more about what they are doing in the community - goes beyond coordinated/targeted care, yet isn't captured by focusing on anchor institutions or community benefit.

National Committee for Quality Assurance (NCQA)

Sarah Scholle

The hub and spoke model positions "Healthcare" at the center of the system. This is problematic because it isn't really clear whether that is really the intention This diagram doesn't convey the meaning of informed versus targeted health care.

University of California, San Francisco

Laura Gottlieb

Hoping it is possible to keep improving the framework graphic. I appreciated Stacy Lindau's comments online about this. In the way that it has been drawn in the current draft, SDH informed and targeted care are at the center, though in the text, the report highlights other important roles that the health care sector can play in this area—many of which we discussed at the in person meeting in DC. Am wondering if her response reflects a difference in scope—in other words, I think one potential difference between the models Stacy refers to and the report is that my understanding is that the NQF report is specifically targeted to state Medicaid agencies. So it may be reasonable to more strongly emphasize the health care delivery work (which I think is where sdh informed/targeted work sits). But that does need to be emphasized—and might raise fewer flags if the framework included a spectrum of activities and then highlighted the ones that are more delivery system-focused. At the very least, with some of these changes we can say that NQF built on the other frameworks rather than "developed a framework"....

University of Chicago

Stacy Lindau

The Framework appears to be closely related to or a derivation of the US Institute of Medicine “Circle of System Partners” figure (IOM 2003, 2011) that was iterated over time from the 1997 WHO report (See Lindau et al, AJPH, 10/16, vol 106, no 10 p1872), but there is no reference to these original sources. There is an important departure from the IOM version (e.g, 2011 For the Public’s Health: the Role of Measurement in Action and Accountability) which posits “government public health infrastructure” at the hub of the intersectoral health system model. The shift to “informed” and “targeted” healthcare at the center of this framework is a substantial departure from the dominant models that have evolved over time and these terms, in spite of the definitions offered, do not resonate with my understanding of the historical and progressive activities in the field. I suggest advancing a framework that clearly builds on these influential and widely promulgated frameworks that preceded. If empirical data underly the new framework proposed here, I suggest presenting those. If not, I suggest explaining what is the empirical basis of this framework.

Urban Institute

Lisa Dubai

Healthcare organizations are uniquely positioned to help to address social needs because far more dollars are invested in healthcare than social services, healthcare organizations are highly skilled in managing contractual relationships with vendors, and healthcare organizations are increasingly responsible for population health- I don’t think that because there are more dollars in health care that they are uniquely positioned to help address the SDOH. Moreover, in many communities there are not social service resources to connect to or to contract with.

Measures and Interventions: Food Insecurity

Center for Data Management and Translational Research Michigan Public Health Institute

Clare Tanner

I want to endorse Laura Gottlieb’s point about geographic level data and individual level data. For which ‘use cases’ is the former good enough?

What is the difference between an intervention and a use case as you are using the terms?

Director of Arnhold Institute for Health, Chair of Department of Health System Design and Global Health at Mount Sinai Health System

Prabhjot Singh

What merits their inclusion? Penetrance, validation, broad acceptance, applicability? For example the AARP 2 question screener — is that just because AARP is big, or is it because it’s used it X million times with Y impact?

- What would happen if we were on the right track from a measurement and tracking perspective? If the answer is that we don’t know, then it’s hard to know if there is an aim that is being achieved or purpose that is being fulfilled. Furthermore, there isn’t any mention of timelines related to these measures — are these 60 day, 1 year, 10 year, 50 year horizons? Those are really important to have a better sense of when and why they should be used.

Federation of American Hospitals

Jayne Chambers

The Federation of American Hospitals (“FAH”) appreciates the opportunity to comment on the National Quality Forum (NQF) report: A Framework for State Medicaid Programs to Address Food Insecurity and Housing Instability. FAH supports the overall intent and offers these comments in an effort to further improve the report.

It remains unclear regarding the degree to which the expert panel and NQF staff identified performance measures that are in use or in development. Understanding the extent to which there are true gaps in measures to address these critical issues

will assist in identifying and supporting their development for future widespread implementation. Throughout the report, many references are made to measures but FAH did not identify any actual performance measures in this section or in Appendix C. For example, the common measures included in the table on page 33 appear to be additional data collection tools and surveys and not necessarily measures that would be ready for submission to NQF for endorsement. What is referred to as a measure in that table in Appendix C and in this section are inconsistent with the current NQF definition of patient-reported outcome-performance measures (PRO-PMs): “a performance measure that is based on PROM data aggregated for an accountable healthcare entity (e.g., percentage of patients in an accountable care organization whose depression score improved as measured by the PHQ-9).” In addition, the report indicates on page 8 that the panel proposed measure concepts in Table 1. Table 1 is not included in the current draft of this report. Given the importance of this topic and the need to drive improvements through measurement, FAH strongly encourages NQF to circulate these concepts for review and comment prior to finalizing the report.

University of Chicago

Stacy Lindau

Within “Common Measures to Assess Food Insecurity” the report mentions and describes the American Academy of Pediatrics (AAP) two-item screener. AAP recommended a modified version of the Hunger Vital Sign (HVS). The citation #21 refers to the validation study for the Hunger Vital Sign, a two-item screener that uses 3 response category options. AAP recommended a modification of the HVS that uses yes/no response options. This two response option version of the HVS had not been previously validated (or if it had, we could not identify published findings). Our group (led by Jennifer Makelarski, PhD) studied the sensitivity of the AAP-recommended adaptation of the HVS (citation #23) and found it lacked sensitivity as compared to the original HVS. In our study population, about a quarter of people with food insecurity were missed by the AAP-recommended adaptation. These findings make sense in light of psychometric principles and the likely higher stigma

associated with answering “yes” to a question about food insecurity. In addition to its public statements endorsing and advocating adoption of the yes/no version of the HVS tool (which could very well be easier to adopt into practice), AAP has also endorsed the Food Research and Action Center (FRAC) recommendations and toolkit. The FRAC recommendations do endorse the original HVS with the three response categories. The Makelarski at al paper provides detailed background on this issue. Note, the sentence in the report referring to the Makelarski paper (citation #23) requires a few edits for accuracy. This study was conducted in both adult and pediatric emergency departments (not just pediatric) and found that the AAP tool missed nearly a quart of food insecure adults as compared to the gold standard. The HVS was more sensitive. There are three citations for this sentence (23, 24, 25) but 23 is the only appropriate cite for this statement.

Additionally, the CMS Accountable Health Communities screening tool cited in the report (Billoux et al 2017) includes an adaptation of the Hager et al HVS screening tool (not the AAP tool) that retains the three HVS response options but slightly edits the wording of the question stems.

We think your report should be accurate with regard to these facts because health care providers adopting the yes/no response version of the HVS (in other words, the AAP-recommended version) should expect to miss a substantial proportion of people presenting with food insecurity.

Measures and Interventions: Housing Instability

Center for Data Management and Translational Research Michigan Public Health Institute

Clare Tanner

I feel like a framework document should recommend some specific domains of focus. For instance at the All In Health and Housing workshop, 4 domains were identified that seemed to resonate well with attendees: 1) housing instability, 2) affordability, 3) housing quality, and 4) location and community development.

Domains are important for a couple of reasons. First

different domains may be amenable to different types of interventions and policies; and may be related to health outcomes in different ways.

Also, because there may be unintended consequences when you intervene in one domain, on other domains. For instance, there is a fear that improving housing quality can decrease housing affordability - driving vulnerable populations out of housing through a gentrification process.

See the next point: should a framework provide a way to think of unintended consequences.

In regards to the sentence-“These data are able to demonstrate that stress, worry, self-efficacy, and the emotional/mental state of an individual related to housing instability may have an effect on an individual’s health, which can lead to poorer health outcomes”: This statement provides a way to link back to the ‘informed care’ part of the framework.

Can informed care help to address any of this? If housing/food insecurity is contributing to the emotional state- wouldn’t the behavioral health approaches be informed through knowing this?

In regards to the sentence-However, as with food insecurity, key informants noted that in many cases providers are reluctant to screen for social determinants when their ability to follow-up is limited, or they are not confident in the referral system: which seems to be another reason why the link to informed care needs to be made. Outside of referral, what should providers do differently?

Federation of American Hospitals

Jayne Chambers

It remains unclear regarding the degree to which the expert panel and NQF staff identified performance measures that are in use or in development. Understanding the extent to which there are true gaps in measures to address these critical issues will assist in identifying and supporting their development for future widespread implementation. Throughout the report, many references are made to measures but FAH did not identify any actual performance measures in this section or in Appendix C. For example, the common measures included in the table on page 33 appear to be additional data collection tools and surveys and not necessarily measures that would be ready for submission to NQF

for endorsement. What is referred to as a measure in that table in Appendix C and in this section are inconsistent with the current NQF definition of patient-reported outcome-performance measures (PRO-PMs): “a performance measure that is based on PROM data aggregated for an accountable healthcare entity (e.g., percentage of patients in an accountable care organization whose depression score improved as measured by the PHQ-9).” In addition, the report indicates on page 8 that the panel proposed measure concepts in Table 1. Table 1 is not included in the current draft of this report. Given the importance of this topic and the need to drive improvements through measurement, FAH strongly encourages NQF to circulate these concepts for review and comment prior to finalizing the report.

SNP Alliance

Deborah Paone

SNP Alliance health plans indicate that housing transience/instability, including periods of homelessness, is a significant social risk factor experienced by a portion of their enrolled members/beneficiaries.

In response to the recent RFI by the Center for Medicare-Medicaid Innovation, we outlined a small-scale initiative to identify, refine, and test a series of evidence-based best practices for improving care for those who are recently homeless, with special focus on integrating services across housing, social services and healthcare in an effort to improve clinical and cost outcomes for this costly complex care subset of Medicare and Medicaid enrollees. This NQF framework for addressing food insecurity and housing instability would be helpful in measuring the alignment of how health, housing, social support intersect in addressing the needs of this complex care population, should CMMI choose to support it.

U.S. Department of Housing and Urban Development

Barry Steffen

Page 9, paragraph 4: Suggested replacement:

A nationally available indicator of housing instability, the prevalence of housing cost burden exceeding 30 percent of income, is assessed through the American Community Survey (ACS), which is conducted by

the US Census Bureau.^{29, 30} This survey contains a diverse set of questions about housing characteristics and housing costs, and federal assisted housing status is available through administrative data linkage. Responses from the ACS survey have been used to assess whether changes in housing costs have an association to other SDOH and whether it effects specific subgroups (e.g., individuals who received housing subsidies). HUD sponsors special tabulations of ACS data known as the Comprehensive Housing Affordability Strategy (CHAS) dataset that summarize prevalence of selected housing problems for small geographies such as census tracts.

In addition to the ACS and CHAS, HUD produces Annual Homeless Assessment Reports investigating the extent and nature of homelessness in the United States.^{31,32,33} For these reports, local “continuum of care” coalitions provide counts of people experiencing homelessness and summaries of their demographic characteristics and service use patterns. The assessment is based on local data from Point-in-Time (PIT) counts, Housing Inventory Counts (HIC), and Homeless Management Information Systems (HMIS).

Page 10, endnote 32: The AHAR Part 1 is referenced several times, but AHAR Part 2 is neglected. Part 2 presents the HMIS data providing unduplicated counts of individuals served by the Continuum of Care homeless service system.

Page 10, paragraph 2: Add to end:

Additionally, recent linkage of HUD administrative data with national housing surveys of the National Center for Health Statistics has made it possible to analyze health outcomes, health access, and Medicaid expenditure data for assisted renter populations.*

*See <https://www.cdc.gov/nchs/data-linkage/hud.htm>.

U.S. Department of Housing and Urban Development

George Carter

The discussion of common measures of housing instability does not discuss the American Housing Survey, which is the most comprehensive Nationally representative survey of housing costs and quality in the United States. Data from the AHS are used to produce the Worst Case Needs reports. The AHS included a topical module on Healthy Housing in 2011,

on Risks of Homelessness in 2013, and Food Security. The survey collects information on affordability, housing inadequacy, overcrowding, residential mobility, and other topics that are related to what is defined as “housing instability” in the report.

Addition to earlier comment. The AHS included a topical module on Food Security in 2015.

Urban Institute

Corianne Scally

Don't you mean the American Housing Survey? That measures housing costs in more detailed manner, as well as housing quality and conditions, residential instability, and others that ACS misses.

Again, you have to include the American Housing Survey as THE national survey that measures housing characteristics.

The Panel Study of Income Dynamics also measures a lot of these things, including moves, reasons for moves, housing and utility costs, educational and health outcomes.

Children's HealthWatch also has a survey administered in five different cities. Here is a link to their findings to date: <http://childrenshealthwatch.org/methods/findings/#toggle-id-8>

These were case studies, not pilot studies. Some programs had been running for 10 years, and most were locally contained (e.g. they were not piloting for a multi-city or state roll-out)

Urban Institute

Lisa Dubay

I would say that these surveys allow researcher to do this but this is not their aim.

These don't seem like interventions but rather research tools.

Case studies not pilot studies

Recommendations

America's Essential Hospitals

Maryellen Guinan

Community and Health Care System Linkages

Recognizing the impact of upstream factors outside a hospital's control, America's Essential hospital members are increasingly working to mitigate social determinants of poor health on two levels: screening and program implementation. Many essential hospitals are screening patients for food insecurity, housing instability and other social determinants of health and referring these patients to community resources to help meet their social needs. Further, many hospitals are venturing outside their walls to partner with local organizations, start intervention programs, and cultivate healthful circumstances for their patients and the community at large. We encourage NQF to review the examples we have provided in other sections herein, of essential hospitals pursuing community-integrated health care. This is not an exhaustive list, and more information can be found in our brief on food insecurity(1), and on our Essential Communities website(2), which presents case studies of essential hospital programs on a wide variety of social determinants of health.

(1) <https://essentialhospitals.org/wp-content/uploads/2016/06/Food-Insecurity-Health-Equity-Essential-Hospitals.pdf>

(2) <https://essentialcommunities.org/>

America's Essential Hospitals

Maryellen Guinan

America's Essential Hospitals thanks NQF for the opportunity to comment on the Payment Methods and Innovative Use of Resources recommendations. Medicaid demonstration waivers and projects allow states to pursue innovation that meets patient needs, including key social needs. States play a critical role in innovation and delivery of high-quality care, and essential hospitals continue to serve as hubs for innovation within their communities. In addition to Section 1115 and 1915c demonstration waivers, states have seen success through the State Innovation Models, Innovator Accelerator Program, Strong Start, and other Medicaid incentive programs. These

wavers and projects allow the development of new avenues for local transformation that starts from the ground up, rather than models that do not account for the unique social challenges many Medicaid and uninsured patients face.

However, preparing providers to accept alternative payment mechanisms and succeed under these demonstrations is no small task. The burden is compounded when the demonstration includes providers with resource constraints that result from delivering most of their care to Medicaid and uninsured patients. The slim operating margins of essential hospitals and other providers to the safety net severely constrain their ability to make bold investments in delivery system transformation. Yet, such transformation increasingly becomes more important as the delivery system evolves to emphasize value over volume.

For these reasons, America's Essential Hospitals has been pleased to see the evolution of innovative Section 1115 waivers and other programs that promote delivery system reform. Through such incentive programs, essential hospitals:

- significantly expand primary and preventive care capacity and access to specialty services, which often are in short supply for low-income populations;
- build data analytics (data systems, disease registries, standardized quality reports, etc.) to facilitate quality improvement and advance population health;
- develop chronic and complex care management capacities;
- engage patients and enhance their experience;
- establish cultures of improvement; and
- reduce harm, improving patient outcomes and saving lives.

Investing time, resources, and funding in this transformation is an investment in the future of Medicaid and its beneficiaries. We believe it is well worth expansion and continued support at both the federal and state levels.

Center for Data Management and Translational Research Michigan Public Health Institute

Clare Tanner

I agree with Laura's point that a recommendation regarding informed care is oddly missing.

I also think the report would benefit from a list of examples of informed care. (E.g., how do providers address anxiety if economic insecurity is part of the problem? What are other situations in which providers need to be alert for how food/housing may be interfering with their patient's capacity to 'comply' with treatment? Are there examples of studies that test ways to address that with patients?

Recommendation: Create a comprehensive and accessible list of community resources- Do we want to say something about working with others on keeping such a list updated? For instance, united ways and 211?

Also there are starting to be software solutions that keep lists updated based on referral success. I worry that telling providers to go off and develop lists will lead to busywork and re-invention of the wheel in multiple locations, if providers are doing this independently. Before creating a list, providers should look around their communities to see what existing lists/collaborations exist. Maybe use the CHNA process to understand how multiple entities in the community are already collaborating.

Recommendation: Create standards for inputting and extracting social needs data from electronic health records (EHR)-I wonder if the recommendations could be organized based on to whom they are aimed. In the previous section, recommendations seemed to be aimed at providers. Whereas in this section, this seems to be aimed at policy makers and entities that help create standards.

Recommendation: Link data across state and local agencies-These are all state examples. Hennipen provides a great example of local data aggregation. Did you see the publication: "Cross Sector Service Use and Costs among Medicaid Expansion Enrollees in Minnesota's Hennepin County", published by CHCS. We hear frequently from local community collaborations that States are not making data available to local collaborations and providers who would make use of it.

Recommendation: Increase information sharing

between health and non-health sectors- Could you add a statement here: "Learning communities such as Data Across Sectors for Health (dashconnect.org) and All In: Data for Community Health (allindata.org) are compiling examples of successful initiatives and sharing lessons learned through tools, webinars, and white papers." Note that today (11/29), All In organized a 1/2 day working session on health and housing at the Midwest Forum on Hospitals, Health Systems, and Population Health. We put a lot of effort into bringing housing groups - as well as healthcare entities. We will soon be releasing some briefs/documents based on this session. We will be sure to get you this material.

Recommendation: Expand the use of waivers and demonstration projects to learn what works best for screening and addressing food insecurity and housing instability- I think in terms of payment reform, we must not slow the momentum of payment reform that addresses accountability. The healthcare centric model outlined in this document will not work until healthcare entities realize value from keeping people healthy rather than providing sick care. Shouldn't a recommendation to Medicaid be to 'Pay for informed care and coordinated services'??? Implementing screening and referral is a very time consuming activity and requires a whole set of resources that many healthcare settings do not have access to! I mentioned above, ways to get funding to primary care, perhaps using PCMH payments. But the actual activity of coordinating care for social services is not paid for. See NASHP's work on payment for Community Health Workers - who do this work of coordination. We in Michigan have found very few options to pay for either community organizations or healthcare facilities who hire CHWs to provided coordinated care. We specifically believe that there need to be some FFS payments for this linking activity in addition to payment reform options.

Director of Arnhold Institute for Health, Chair of Department of Health System Design and Global Health at Mount Sinai Health System

Prabhjot Singh

Most of these sound like oft repeated platitudes. How? Why? What specifically?

Do the thought experiment—if these were written

in 2012 would they sound on par? Even then most would sound like they miss the mark. For instance, health systems should acknowledge... so what? What does an acknowledgement sound like...a modification of mission statement, a marketing campaign, an investment, a fulfillment of community benefit requirements in particular ways, a nodding of the C-suite heads when these issues come up... ?

Federation of American Hospitals

Jayne Chambers

FAH supports those recommendations put forward by the expert panel. We would like to suggest that the recommendations under Information Sharing and Measurement allow some flexibility in how the questions are asked given the many differences in patient populations served within and across communities. FAH would propose that the recommendations be further clarified to promote alignment of the topics/subtopics addressed and focus on standardizing how the data is captured to allow comparisons across tools, providers and settings.

National Committee for Quality Assurance (NCQA)

Sarah Scholle

- “Expand the use of waivers and demonstration projects” needs a corollary: “Rigorously study waivers and demonstration projects to determine what works”
- The report title indicates that this framework is for state Medicaid agencies. The recommendations do not clearly draw out the role of state Medicaid agencies. If this is to be gleaned from the use cases, it would be helpful to articulate that specifically.

SNP Alliance

Deborah Paone

We endorse the work of this Expert Panel and their recommendations. We agree that the health care system, including health plans and providers, have a role to play in helping to address social determinant risk issues—but that they play a supportive and enabling role to other key institutions, agencies, and community stakeholders. Partnerships are key, as

mentioned. Greater resources focused on community services and public health are needed.

We agree that emerging literature, real-world case studies, and community as well as expert input support the conclusion that approaches to address social risk issues, as well as resources and partners marshalled, must have strong local/community leadership and sustained commitment. There are not simple solutions and the accountability is diffuse. It will take a concerted effort across many sectors to make sustained progress.

We concur with the Panel's finding on the importance of standardizing or harmonizing tools, data, and measures. Data definitions and data collection and reporting would be most effective when at least a core set of elements were standardized across states. Data standardization is key to accurately measuring, analyzing and reporting on trends and determining impact of efforts expended.

Finally, we note the key role that special needs health plans and Medicare-Medicaid plans have been performing with regard to working with states on demonstrations to expand the use of waivers and create expanded approaches for addressing social risk and supportive needs of persons who are dually eligible for Medicare and Medicaid and who experience significant social risk issues. We have seen plans, providers, and states working as effective partners to innovate and connect across silos and services including social support, behavioral health, and medical/clinical care.

U.S. Department of Housing and Urban Development

Barry Steffen

Page 11, paragraph 3: Add to end:

A number of opportunities exist for health care institutions to collaborate with local governments exist in connection with housing assistance, homeless services, and community development efforts. For example, as local hospitals undertake mandatory Community Health Needs Assessments, they should be cognizant that local jurisdictions periodically develop Consolidated Plans in connection with federal formula grant resources that include assessments of affordable housing needs and fair housing challenges.* Similarly, public housing

authorities, many of which serve large disadvantaged populations, also develop five-year plans.** Public health objectives could be usefully integrated into housing plans, and housing considerations into health needs assessments.

*See <https://www.hudexchange.info/programs/consolidated-plan/con-plans-aaps-capers/>

** See https://www.hud.gov/program_offices/public_indian_housing/pha

University of California, San Francisco

Laura Gottlieb

- Also, as they stand the recommendations feel very focused on SDH targeted care. I think it might be worth considering a recommendation that refers to the need to learn more about what are the many ways in which routine care can be improved to accommodate SDH (SDH-informed). Perhaps that could be included under the first recommendation, but I think it also could stand on its own. If we're going to include sdh-informed care in the framework at all, feels weird not to have a recommendation about it.
- Re: recommendation about standardizing social needs in EHRs...I think I would add to that recommendation by saying that the standards cannot exclusively focus on diagnostic codes, but need to also include coding standards for screening and treatment activities related to food and housing. The use cases for having those standards include not only clinical provider level uses, but also population health uses (panel management, community health improvement, payment/risk adjustment). I think two of those use cases are described in the paragraph under that recommendation, but they're in different places in the paragraph so hard to follow.

University of Chicago

Stacy Lindau

Typo: "CommunityRX" should be spelled "CommunityRx"

Urban Institute

Corianne Scally

On the Payment Methods-And New York has largest program: https://www.health.ny.gov/health_care/medicaid/redesign/supportive_housing_initiatives.htm

Urban Institute

Lisa Dubai

Recommendation: Create a comprehensive and accessible list of community resources- I think this needs to acknowledge that not all communities will have these resources and that there is more of a demand for some services -- especially affordable housing -- in most communities.

Recommendation: Increase information sharing between health and non-health sectors- I believe there are legal issues regarding the sharing of this type of data, unless you are considering having the providers ask these questions.

Use Cases

America's Essential Hospitals

Maryellen Guinan

America's Essential Hospitals thanks NQF for the opportunity to provide the follow examples of work being done by our members to address social determinants of health.

Food Insecurity

Boston Medical Center (BMC), in Boston, screens emergency department and clinic patients for hunger and provides those who screen positive with healthy food prescriptions that can be filled at the hospital's food pantry. BMC partners with the Greater Boston Food Bank and other local organizations to operate an on-campus food pantry of healthy foods, including fresh, perishable items.

Contra Costa Regional Medical Center, in Martinez, California, uses the Health Leads REACH tool, a sophisticated resource linkage software, to screen patients for social needs; capture demographic data; refer patients to needed resources, including food assistance; and conduct follow-up tracking and evaluation.

Hennepin County Medical Center, in Minneapolis,

works with Feeding America's Second Harvest Heartland food bank and other community partners to stock and distribute bags of healthful groceries to patients and families in need of food assistance.

Cook County Health and Hospitals System, in the greater Chicago area, screens patients for food insecurity at intake. Patients who screen positive are connected to Supplemental Nutritional Assistance Program (SNAP) and/or Special Supplemental Nutrition Program for Women, Infants and Children (WIC) programs as appropriate, and/or given vouchers for fresh produce at mobile produce markets, through a partnership with the Greater Chicago Food Depository.

UMass Memorial Health Care, in central Massachusetts, operates multiple community gardens, the produce from which is made available to community residents through mobile farmers' markets, where SNAP payments are accepted. Emergency department, clinic, and community center patients are screened for food insecurity and connected to appropriate resources.

America's Essential Hospitals

Maryellen Guinan

America's Essential Hospitals thanks NQF for the opportunity to provide the follow examples of work being done by our members to address social determinants of health.

Housing Instability

Bon Secours Hospital, in Baltimore, developed and operates hundreds of affordable housing units in southwest Baltimore, partnering with numerous local organizations to develop the housing facilities and coordinate related services for residents.

John Peter Smith Hospital, in Fort Worth, Texas, partners with the Salvation Army to provide the Tarrant County Pathways to Housing program, connecting medically vulnerable homeless patients with permanent housing rental assistance, long-term case management, and supportive services.

University of Illinois Health, in Chicago, partners with the Center for Housing and Health for the Better Health Through Housing program, in which homeless patients can receive housing support in apartments or single-room-occupancy facilities.

University of Vermont Medical Center, in Burlington, Vermont, operates a temporary housing and case management program in partnership with multiple community agencies, including the Vermont Agency of Human Services. Homeless patients can be discharged to there from the hospital and assisted to secure ongoing housing.

Center for Data Management and Translational Research Michigan Public Health Institute

Clare Tanner

I am not sure what this section is about. Why the term 'use cases'. The examples below seem to be about how Medicaid is incorporating SDOH in payment models. Is that a 'use case'? Based on the report, I think this could be organized more clearly to summarize how multiple actors are using data on food insecurity and housing instability. These include Medicaid, also providers, other policy makers.

AHC is not just a data collection activity - it's a test of model elements that are consistent with the framework presented here.

I see you don't really reference what states are doing with SIM - possibly because these are in 'testing' mode. Michigan for example is making SDOH screening a requirement for it's Medicaid PCMH program.

'Community Linkages' has been an element of BCBSM's PCMH program (which is now adopted by thousands of practices across the state) since 2010. One element of this domain is creating a list of community resources.

University of California, San Francisco

Laura Gottlieb

One additional reflection...I think folks around the country and across use cases are really struggling with whether area based measures versus patient-reported measures are adequate/feasible. I think we would be remiss if we didn't mention that explicitly, emphasizing that this needs to be explored in any future work. The idea is sort of embedded in different places in the report, but this is a big issue and we don't actually know what to do about it. For instance, could you use area-level measures for payment/risk adjustment everywhere? Could you use them for targeting high risk patients? Much of the report now

is focused on patient-level reporting. Before any recs come out for specific measures in these domains, we need to highlight that as an area where we need more information. I think this relates to the NQF report on the SDH risk adjustment trial period from earlier this year, too.

University of Chicago

Stacy Lindau

There is a bullet under “use cases” referring to the State of Illinois “long-standing integrated system...” There is no reference. Are you referring to this? <http://www.dhs.state.il.us/page.aspx?item=70001> I recommend a reference and validation of the quality of this example as a use case.

Urban Institute

Corianne Scally

Surprised there is nothing on the role of state Medicaid programs in determining allowable reimbursable housing-related expenses. This seems like low hanging fruit: state Medicaid organizations can review their current policies on housing-related expenses to see if a change could help address housing instability as it exists in their particular state.

<https://www.medicaid.gov/federal-policy-guidance/downloads/cib-06-26-2015.pdf>

https://www.communitycatalyst.org/resources/publications/document/Bringing-Independence-Home_Housing_Related_HCBS-1915c-Waivers.pdf

Conclusion

Center for Data Management and Translational Research Michigan Public Health Institute

Clare Tanner

NQF Health Quitey Roadmap-This reference comes out of the blue - you haven't talked about it yet.

Appendix B

University of Chicago

Stacy Lindau

Please correct my description under relevant experience: Director, South Side Health and Vitality Studies which includes CommunityRx and Feed1st. Feed1st is a hospital-based hunger mitigation effort that operates 6 self-serve pantries in children and adult clinical settings.

Appendix C

U.S. Department of Housing and Urban Development

George Carter

No mention of the American Housing Survey, a key source of data on Housing Costs and Quality for the United States.

General Comments

America's Essential Hospitals

Maryellen Guinan

America's Essential Hospitals thanks NQF for the opportunity to submit the following comments on challenges and potential barriers for essential hospitals (part 1 of 3).

Resource Constraints

Essential hospitals strive for quality and performance improvement each day, in innovative ways and with limited resources. The populations receiving care at essential hospitals require resource intensive, evidence-based quality improvement strategies that extend beyond the hospital walls and into communities. The challenge for our members is compounded by the need to determine whether a patient or caregiver can access or provide necessary, post-discharge care and to identify the availability of non-health, community-based services, such as meal services, housing for homeless patients, transportation, and language assistance. We urge the expert panel to recognize the upfront costs of developing infrastructure to address social

determinants of health and the existing resource challenges of essential hospitals, which operate with margins less than half that of other hospitals.

America's Essential Hospitals

Maryellen Guinan

America's Essential Hospitals thanks NQF for the opportunity to submit the follow comments on challenges and potential barriers for essential hospitals (part 2 of 3).

Risk Adjusting Measures

As required by the Improving Medicare Post-Acute Care Transformation (IMPACT) Act, the Department of Health and Human Services Office of the Assistant Secretary for Planning and Evaluation (ASPE) in December 2016 released the first of two reports that clearly connected social risk factors and health care outcomes.[1] The report provides evidence-based confirmation of what essential hospitals and other providers have long known: Patients' sociodemographic and other social risk factors matter greatly when assessing the quality of health care providers.

Outcomes measures, especially those focused on readmissions, do not accurately reflect quality of care if they do not account for socioeconomic factors that can complicate outcomes. For example, patients who do not have a reliable support structure or stable housing are more likely to be readmitted to a hospital or other institutional setting. Identifying which social risk factors might drive outcomes and how best to measure and incorporate those factors into payment systems is a complex task, but doing so is necessary to ensure better outcomes, healthier populations, lower costs, and transparency. The work of the expert panel on food insecurity and housing instability highlights the challenges for essential hospitals of clinical and social factors that influence health outcomes.

We urge NQF to keep in mind, when reviewing and endorsing quality measures, that the use of quality measures in Medicare programs without appropriate risk adjustment creates an uneven playing field. Quality measurement must account for the socioeconomic and sociodemographic complexities of vulnerable populations to ensure hospitals are assessed on their work, rather than on

the patients they serve; by ignoring these factors, quality scores will be skewed against hospitals that provide essential care to the most complex patients, including those with sociodemographic challenges and the uninsured.

[1] Department of Health and Human Services Office of the Assistant Secretary for Planning and Evaluation. Report to Congress: Social Risk Factors and Performance Under Medicare's Value-Based Purchasing Programs. Washington, D.C.; December 2016. <https://aspe.hhs.gov/system/files/pdf/253971/ASPESESRTCfull.pdf>. Accessed November 2017.

America's Essential Hospitals

Maryellen Guinan

America's Essential Hospitals thanks NQF for the opportunity to submit the follow comments on challenges and potential barriers for essential hospitals (part 3 of 3).

Electronic health records (EHRs)

The expert panel recommends the creation of standards for adding social needs data to, and extracting it from, EHRs. Essential hospitals and physicians practicing in these hospitals and their associated clinics are ready to adopt and meaningfully use EHR technology. While there are multiple private- and public-sector initiatives to improve the interoperability landscape, there is still much work to be done to allow providers to easily exchange information. Further, providers serving vulnerable populations face tangible barriers in EHR adoption and use, whether due to financial constraints, infrastructure challenges, or reasons outside their control (e.g., vendor issues or unique patient populations).

Additionally, America's Essential Hospitals partners with other industry leaders in the National Call to Action to Eliminate Health Care Disparities, which promotes the culturally appropriate collection of patient race, ethnicity, and language (REL) information. We believe the collection of REL data supports hospitals' efforts to identify preferences and needs and to tailor a care plan to specific patient characteristics.

Chief Philanthropy Officer, Geisinger Health System

Nancy Lawton-Kluck

I just wanted to echo Laura's comments, especially the first bullet and the request to have the document consistently read "built on" rather than "develop". A lot of good work is already being done, it is the standardization and connectivity of that work that would produce the greatest benefit.

National Committee for Quality Assurance (NCQA)

Sarah Scholle

- Survey and measure are not interchangeable words. Screening tools are not measures.
- There are sentence fragments starting on the very first page, and inconsistencies throughout. Editing is needed. For example: "The framework positions the health care system has playing a central in connecting individuals to social services."??????)

Oregon Food Bank

Lynn Knox

1. We need to call more clearly for a set of standard screening questions for SDoH. They won't be perfect and will need on-going review & improvement but we need to get national consensus or a decision on one set we will all use so that the confusion doesn't impede use.
2. Examples of workflows incorporating food insecurity & housing screening & intervention would be helpful.
3. Examples of the type of state and community level collaborations needed are thin. We need more examples of collaboration to address the SDoH issues. There are plenty out there just none to scale.
4. The document continues the perception that the screening needs to be done in person and possibly even by a provider. Our testing indicates that there is a 30% higher rate of food insecurity when the screening is in writing. This makes everyone more comfortable and is more efficient as well. The workflow just needs to insure that the provider sees the information so she can take it into account for the diagnosis & treatment plan. This

triggers resource information as part of the after visit summary which should then be reviewed with the patient by staff, interns or trained volunteers.

5. Payment reform is key to SDoH interventions and so a bit more description of the options and maybe some recommendations would be helpful.
6. A detail under the listed collaboration examples and calls for resource information. Oregon Food Bank provides an EHR compatible list of the food and nutrition education resources available in every Oregon County in 13 languages. The availability of this list was key in the state's adoption of our food security & intervention performance measure and part of the reason we have been able to implement the screening in over 300 sites.

University of California, San Francisco

Laura Gottlieb

- It should be much more clearly stated that Housing screening tools have not been well studied. If NQF is really trying to make recommendations about practice, more time needs to be spent on the feasibility of recommending these kinds of tools be put into practice.
- It should be much more clearly stated that more evaluation of interventions in both areas need to be better studied before recommendations can be made.
- The examples of the interventions to address housing instability are not actually intervention to address housing. They are a somewhat random selection of studies that have to do with how housing instability affects health—there is no intervention there, unless I'm reading this incorrectly...?
- The recommendations themselves make sense to me but the first two categories don't seem to be that different from one another. You could easily imagine that "linking data across state and local agencies" or "increase information sharing between health and non-health sectors" would be appropriate to put under "community and healthcare system linkages", no?

Memo from Benefits Data Trust

Thank you for the opportunity to respond to the National Quality Forum's (NQF) request for public comment regarding *A Framework for State Medicaid Programs to Address Food Insecurity and Housing Instability Draft Report*.

Benefits Data Trust has the following three overarching comments:

1. Clearly identify state Medicaid agencies' Responsibilities

- There is a role for state Medicaid agencies to play in how they better serve Medicaid clients across government funded health and human services delivery system. The effective use of data and person-centered service delivery is critical to transform the healthcare system for low-income clients across the country. While the role of the "healthcare system" being payers and providers is important, how Medicaid agencies work with partner agencies to coordinate a more robust, person-centered health and human service delivery system is essential. BDT recommends NQF review and incorporate the Health and Human Services Integration Maturity Model 2.0 and the Business Model for Horizontal Integration of Health and Human Services developed by the American Public Human Services Association¹ into your review and recommendations.
- Specifically, while SNAP is mentioned, BDT recommends further articulating the value of making sure that all eligible Medicaid enrollees are also enrolled in SNAP. Policy options (like the Elderly Simplified Application Program or ESAP), process changes, better use of verified household data from Medicaid and targeted outreach - as demonstrated through BDT's work in PA, MD, NYC, CO, SC, NC and CT increase participation rates.
- Improving SNAP participation rates decreases healthcare utilization and increases healthcare

cost savings; \$2,100 per dual-eligible senior enrolled into SNAP.²

- There are also valuable nutrition programs in addition to SNAP. BDT recommends specifically noting the value of WIC in improving health for mothers, toddlers and babies. Further coordination between Medicaid enrollees and WIC programs will benefit this population. As an example, every mother enrolled in Medicaid should be screened for, and supported with WIC enrollment. State Medicaid agencies must better use data to coordinate and deliver this support.
 - Other benefits like Weatherization, Home Modifications, & LIHEAP all help create safer, more affordable housing. BDT suggests including a recommendation about how these government funded programs can be better coordinated with Medicaid programs.
- ### 2. Incorporate CBOs and the Anti-Hunger network into "Figure 1: Framework of Health Care Systems Role in Addressing Social Needs"
- While the infographic lists "Food and Nutritional Support" and "Philanthropy", as collaborators, human service community based organizations (CBOs) and the anti-hunger network are omitted or not clearly highlighted. As strong partners in the field, and in many cases the entities that will deliver SDOH solutions these groups should be explicitly included.
- ### 3. Revise Payment Methods and Innovative Use of Resources Section
- State Medicaid agencies must create payment models that align, incentivize, and ultimately fund health and human service interventions that result in better health outcomes, improved

¹ https://aphsa.org/APHSA/Collaborative_Centers/National_Collaborative/Guidance_and_Resources_Sub/guidance_and_tools.aspx?WebsiteKey=ac5e6746-8ef3-4324-b887-4a59e094f0ab

² Samuels, L. et al. "Increased Access to Supplemental Nutrition Assistance Program reduces hospital utilization among older adults. The case in Maryland." *Population Health Management*. Szanton, et al. "Food assistance is associated with decreased nursing home admissions for Maryland's dually eligible older adults." *BMC Geriatrics*. See also: Berkowitz, S. et al. Supplemental Nutrition Assistance Program (SNAP) Participation and Health Care Expenditures Among Low-Income Adults. *JAMA Intern Med*. 2017;177(11):1642-1649. <https://jamanetwork.com/journals/jamainternalmedicine/article-abstract/2653910>

quality of life and reduced costs. While waivers are part of this reform, this report should encourage and enable Medicaid agencies and healthcare partners to consider more overarching solutions – pay for performance, value based-reforms and the creation of other payment models is necessary.

- Specifically, we caution against the recommendation of providing a list of referrals without clearly articulating that human service supports need to be fully funded.

In addition to the aforementioned overarching comments, BDT also has three specific recommended revisions. Below, in red [and in brackets], are these recommended edits and additions to the Draft Report as well as rationale for the suggested alterations:

“Recommendation: *Acknowledge that the healthcare system has a role in addressing social determinants of health*

The Expert Panel recommended the explicit acknowledgement that the healthcare system has a role to play in addressing SDOH. The Panel stated that healthcare organizations are often able to influence the communities in which they serve and many are anchor institutions within the community. [Not only is the healthcare system in a prime position to address the SDOH, doing so would benefit the healthcare organizations themselves as well as their clients by lowering costs and improving health outcomes.] The Expert Panel noted, however, that the healthcare system is only one participant in the larger effort to tackle these issues.”

- *Rationale for Change:* While healthcare systems should acknowledge they have a role in addressing the social determinants of health, they should also be provided with a reason as to why it is in their best interest to do so. Providing such an incentive will cause them to be more willing to make such an acknowledgement.

“Recommendation: *Create a comprehensive and accessible list of community resources [and create integrated mechanisms to connect and coordinate clients to appropriate service supports]* Multiple Panel members noted the need for a comprehensive list of specific local community services that could be accessed by members of the healthcare system[, as

well as institutionalized and standardized partners and processes for coordinating access]. Data are important to understand the demand for services and the available supply of services to address them. The Panel recognized the challenges of keeping a catalogue updated, but recommended it as a key component of establishing the healthcare and community linkages...”

- *Rationale for Change:* While a continuously updated and thorough list of specific local community services is a beneficial document / tool if the correct members of the health care community do not have a standardized method of using it, it will likely fall by the way side.
- *The provision of a list of resources is just a first step, but a more robust and comprehensive recommendation is necessary to actually influence how potential readers think about building SDOH interventions and help Medicaid enrollees meet their human service needs*

“Recommendation: *Increase information sharing between health and non-health sectors [to better serve clients across the health and human services ecosystem]*

There are examples of Medicaid programs coordinating with social service programs to share information for the purpose of identifying individuals with social needs (e.g., KS, MA, MI, NY). Still, many meaningful connections have not yet been made. There are other data sources that can be used to determine an individual’s social needs, which have not been traditionally considered for informing healthcare delivery. For example, knowing which patients are enrolled in the SNAP, their demographic characteristics, and if they are using their benefits could benefit a healthcare provider. [The data share in the opposite direction is equally beneficial; a healthcare organization communicating to an appropriate social service organization which of its members are not on SNAP would ultimately reduce food insecurity rates.] Likewise, information on individuals enrolled in supportive housing programs or those who are on waiting lists could be potential indicators of housing instability.”

- *Rationale for Change:* It is important to highlight that, in order to comprehensively address the

SDOH, that healthcare organizations should be the 'data sharers' in addition to the 'data receivers' whenever possible under relevant law.

- BDT also recommends strengthening this recommendation to be more inclusive of how data can and should be used to architect a new model of healthcare that includes social service supports in the family of care. Data can be used to predict intervention, target supports, and measure the impact and value of said interventions. BDT cautions against limiting the recommendation to just focus on targeting when health and human service partners have so much work to do in how they use data to better serve client needs.

Benefits Data Trust appreciates NQF's consideration of this input.

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