Conceptualizing Performance Measurement for Social Care Interventions: An Issue Brief for State Medicaid Agencies

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Background

Growing recognition that socioeconomic adversity impacts health outcomes has led the healthcare sector to support initiatives that address social determinants of health (SDOH). Federal and state Medicaid policies have helped to catalyze advances in this area of "social care," often starting with the implementation of social risk screening programs. Two recent reports have highlighted ways in which social risk screening programs might be strengthened or expanded in state Medicaid models, including through the development of contractual requirements and performance measures (Zayhowski et al, 2020; Isaacson & Bailit, 2020). Numerous Medicaid agencies, however, are now looking beyond screening to support interventions that might reduce members' social needs (Kaiser Family Foundation, 2020). This is not entirely new: for instance, since 1981, Home and Community Based Services program waivers have covered benefits such as home food delivery. But Medicaid's social needs-related interventions have both broadened and accelerated. For example, in Ohio, Medicaid managed care organizations (MCOs) now cover members' transportation costs to food banks (Tribune Chronicle, 2020); Arizona's MCOs are required to direct 6% of their profits to community reinvestment (Snyder, 2019); and other Medicaid innovations in Washington, North Carolina, Colorado, and Michigan are designed to facilitate social service referrals from healthcare settings (Crumley et al, 2021). Taken together, these initiatives reflect a shift in emphasis from social risk screening to intervention activities in state Medicaid programs.

Performance measures might be leveraged to further incentivize these interventions and track adoption. Several social care use cases are relevant to Medicaid agencies: monitoring MCOs' compliance with specific state or federal initiatives/requirements; advancing practice adoption by applying financial incentives, withholds, or public "scorecard" reporting; and informing future program development. In this brief, we explore opportunities for state Medicaid agencies to apply performance measures with contracted entities that could strengthen their growing interest in social care and highlight several barriers to those applications. Specifically, we examine ways in which state Medicaid agencies might use structural, process, and outcome measures to advance specific types of social care interventions described in the 2019 National Academy of Sciences, Engineering, and Medicine report on *Integrating Social Care into the Delivery of Health Care to Improve the Nation's Health* (NASEM, 2019). This brief does not include recommendations for specific performance measures, since measure selection and implementation are highly dependent on context. Instead, we introduce three types of activities in the NASEM report most relevant to Medicaid agencies, provide measure examples, and surface both key barriers and facilitators to applying performance measures to these types of activities.

Though this brief is primarily intended for state Medicaid agency audiences, it is also likely to be relevant to other stakeholders—including managed care executives and delivery organization leaders—who are weighing social care implementation strategies.

The National Academy's Social Care Framework

Five categories of social care practices are described in the 2019 NASEM report (NASEM, 2019). The first of these, *Awareness*, focuses on social risk screening and assessment. Since *Awareness* has been the focus of prior publications (Zayhowski et al, 2020; Isaacson & Bailit, 2020), we center this brief on social care *intervention* categories that build on assessment activities. These categories—each of which encompasses a wide range of related interventions—provide a useful organizing framework for a spectrum of socioeconomic, social determinants-related practices in the U.S. healthcare sector (**Table 1**).

Table 1: Definitions and Examples of Three Social Care Intervention Categories*

Category	Definition	Impacts	Example(s)
Adjustment	Activities focus on altering clinical care, such as changing the delivery of healthcare services, to address members' social barriers	Activities aim to accommodate members' immediate social needs	Clinician offers audio-based telehealth services to members with transportation insecurity and/or limited access to technology
Assistance	Activities aim to reduce social risk by connecting members with relevant social care resources	Activities aim to alleviate members' immediate social needs	Healthcare team helps to connect members experiencing food insecurity to food benefits
Alignment	Activities in which healthcare organizations invest in developing or strengthening practices that might improve social conditions for the communities they serve	Activities aim to address structural, community-level social conditions	MCO contracts with local organizations to contribute to local economy and provides loans to fund development of affordable housing

*Based on NASEM 2019 Committee Report, *Integrating Social Care into the Delivery of Health care to Improve the Nation's Health* (NASEM, 2019)
**The NASEM report includes a fourth intervention category, *Advocacy*, which is omitted from this brief based on assumption that advocacy may be legally restricted in the Medicaid context.

Social Care and Structural, Process, and Outcome Measures

Translating the NASEM social care intervention concepts into performance measures is complicated by the fact that each social care category reflects a broad range of potential activities, often unique to a specific social domain (e.g., food security, transportation, or housing) and local context (e.g., prevalence of needs, resources, and partnerships). Furthermore, social care measure application will vary based on the goals of each stakeholder (e.g., Medicaid agency, MCO, healthcare delivery organization, or clinical team).

In this brief, we introduce traditional performance measures from the Donabedian model (Donabedian, 1988)—structural, process, and outcome measures (**Table 2**)—and then conceptualize their application to the evolving field of Medicaid social care.

- *Structural measures* are used to catalyze program development by helping Medicaid agencies define the inputs needed for implementation and growth. Structural measures may be especially relevant to nascent social care programs since care integration will require new capacities, including staff and staff training/education; clinical workflow and management; and data infrastructure. Ideally, structural measures can prompt agencies to implement new activities by ensuring the inputs and capacity to provide quality care, benchmark progress, and lay the groundwork for subsequent practice-oriented changes.

- *Process measures* link inputs and outcomes by assessing whether a program or policy was implemented consistently and effectively. These measures capture system use (e.g., whether, who, how, and with what frequency the program capacity is leveraged) and program uptake or receipt. Process measures for some *Assistance* and *Alignment* initiatives may need to link activities occurring within healthcare settings (e.g., referrals to food benefits programs) to activities conducted outside of the healthcare sector (e.g., receipt of food benefits services), though gathering external data can pose additional barriers for populating measures. Ideally, process measures facilitate continuous quality improvement, ensuring programmatic efforts are implemented in ways that achieve their intended outputs. For example, if there is a breakdown in the flow between social care assessments, referrals, and receipt of services, process measures may help to identify where bottlenecks exist and subsequently, how to deploy resources to optimize efficiency.

- *Outcome measures* convey whether new infrastructure and processes have led to their intended impacts. In the context of social care, these intended impacts can include familiar outcomes related to health and health equity (e.g., improved equity in diabetes outcomes across populations), and cost and utilization (e.g., decreased readmissions for heart failure). Some shorter-term outcome measures might also capture changes in social health (e.g., food and housing security for members or populations) as well as member and provider experiences with social care programs.[1] Outcome measures should correspond to each activity's scope and timeframe; some also might reflect the combined impacts of one entity's social care activities (e.g., across intervention types, both member and community-targeted) or the combined social care activities of multiple entities (e.g., multiple MCOs or regional efforts across one state). Measurable changes in health and health equity outcomes may be difficult or impossible to achieve with a single social care activity, which is why the NASEM framework encompasses multiple intervention types spanning both individual and community levels.

The convergence of interest in social care and increasingly explicit Medicaid agency commitments to health equity (Smithey & Patel, 2021) provides an opportunity to strengthen work in both areas. More routine collection of race and ethnicity data (Kennedy, 2020) will enable Medicaid agencies to assess how social care activities are experienced by and impact the health outcomes of members who identify as Black, Indigenous, and other people of color (BIPOC). Specifically, the capacity to stratify process and outcome measures by race and ethnicity will help state agencies and their contracted health plans assess whether 1) activities are implemented equitably (e.g., does time to referral or program uptake vary across different racial/ethnic groups?); and 2) whether activities contribute to reductions in health inequities (e.g., are activities moving the needle of key health indicators, such as Black/white disparities in infant mortality?). This information can provide Medicaid agencies with insights into the specific activities that need improvement or the need for supplementary activities. Below, we consider how different types of performance measures could be used by state Medicaid agencies to advance social care, including applications relevant to achieving health equity goals.

Table 2. Applying the Donabedian Quality Measure Framework to Social Care

Category	Definition	Social Care Applications
Structural	Focus on fixed characteristics, including of an organization, its professionals, and staff. These measures highlight a capability rather than the activity that relies on that capability.	Do the MCO/health systems have the capacity to engage in social care activities – including staff, technology, trainings, workflows, and funding – needed to partner with, provide, assess, or invest in social care services?
Process	Assess the steps or activities carried out in order to deliver the intended care or services. These measures focus on the actions of healthcare professionals and staff. Consideration should be given to sample sizes for denominators, exclusion criteria, and alternative processes or workarounds that may exist.	How and when is the new social care intervention used? By whom? Does program uptake vary across racial/ethnic member populations?
Outcome	Focus on the product of a process or system of care or services.	Do social care interventions positively or negatively affect social conditions, mental and physical health and health equity, and/or healthcare cost and utilization? What are members'/families' and clinicians' experiences with social care programs? Do outcomes and experiences vary across different racial/ethnic populations?

1 Member and provider experiences with social care programs alternatively can be considered process measures. The traditional Donabedian framework does not clearly articulate the best fit category.

A common argument against introducing performance measures for social care is that healthcare stakeholders, including providers and MCOs, may object to being held accountable for societal socioeconomic conditions. Applying these different types of measures – particularly structural and process outcomes – to different components of the NASEM social care framework, however, provides opportunities for the appropriate healthcare stakeholders to be held accountable for the implementation of programs intended to address socioeconomic adversity rather than for social factors that may extend beyond their sphere of influence.

Designing Performance Measures for NASEM Categories *Adjustment*, *Assistance*, and *Alignment*

Adjustment

Structural measures related to *Adjustment* may be useful for ensuring healthcare organizations have the infrastructure needed to support care delivery transformation, including the resources, staff capacity, workflows, and partnerships necessary to implement and sustain these practices. Examples include Electronic Health Record-based alerts that ensure clinicians know when members report social needs or registries that can track patients with specific needs. For instance, a registry might track members experiencing homelessness to ensure up-to-date hepatitis A vaccination or tuberculosis screening (Doshani et al, 2019). Audio-based telehealth services, which may be more accessible than in-person or video-based appointments for members with limited access to transportation and/or internet/technology, offer another care delivery-based *Adjustment* example. Related structural measures might gauge topics such as whether audio-based telehealth is a covered Medicaid service, or whether MCOs have developed and disseminated training for patients or healthcare professionals on different telehealth service options.

Process measures related to *Adjustment* assess how recommended care modifications are implemented, when, and by whom. Applying this concept to the audio-based telehealth services example used above, process measures might gauge whether/when patients with relevant social risks (e.g. transportation insecurity) are offered a range of telehealth services when scheduling appointments; how many clinicians are trained to and/or offer different forms of telehealth services; member uptake rate of different forms of telehealth; and the appointment show rate for the range of telehealth services offered. These types of process outcomes could be stratified by member race/ethnicity.

Many social care *Adjustments* are condition-specific (e.g., food insecurity has unique impacts on diabetes treatment) and may therefore be linked with condition-specific outcomes measures (e.g., HgA1c.) But there also are member, provider, health, utilization, and cost impacts relevant across conditions and populations. For instance, using the audio-based telehealth services example, relevant outcome measures might include members' and clinicians' experiences as well as both member or plan-wide utilization outcomes, such as preventable readmissions.

Examples of performance measures related to *Adjustment* activities are presented in **Table 3**.

Table 3. Applying Performance Measures to *Adjustment* Activities: Telehealth Services Example

Social Domain	Activity	Structural Measure	Process Measure	Outcome Measures
Transportation insecurity	Telehealth services	Coverage for different forms of telehealth services	Percentage of patients with transportation insecurity offered different forms of telehealth appointments; appointment show rate for different types of telehealth appointments; measures can be stratified by race/ethnicity	90-day readmission rates for members utilizing telehealth services for routine care; measures can be stratified by race/ethnicity

Assistance

Structural measures in the *Assistance* category focus on the healthcare system's capacity to connect members with resources both in and outside of the healthcare setting, since many *Assistance* interventions involve referrals to external entities. As an example, some Medicaid agencies may ask payers or healthcare delivery organizations to report whether a member experiencing food insecurity connected with a community or government food benefits program; this will require the exchange of member follow-up information between healthcare and social service agencies/organizations. Structural measures can assess (and thereby encourage) the development of staff capacity to connect members with social service resources, partnerships with social service organizations, available funding or coverage to facilitate connections, as well as data use agreements and the availability of shared technology or other infrastructure needed for data collection and aggregation.

Process measures specific to *Assistance* activities assess the engagement and effectiveness of staff, workflows, training, and/or technology deployed to connect members with resources. Using the example of members experiencing food insecurity, process measures might assess the number of members referred to a food resource, the number of members successfully connected with the referral agency, and the number of members who were able to obtain food resources.

Outcome measures assess the intended impacts of the *Assistance* services (e.g., reduced food insecurity) as well as members' and clinical teams' experiences with these services (e.g., experiences with referrals to food resource agencies). Measure selection will need to take into account the type of intervention and the timing and scale of impacts on social, health, health equity, and healthcare utilization outcomes. Many *Assistance* activities involve referrals to programs that provide immediate, short-term, or otherwise time-limited resources such as food or transportation; others provide longer-term services and supports. Using the food security example, for instance, a relevant social health outcome measure for a member referred to a food pantry might reflect short-term changes in the member's food availability rather than sustained food security. For activities that facilitate member enrollment in SNAP or other government assistance programs, however, measuring the stability of food security might be more feasible. In addition to measuring changes in social conditions, Medicaid agencies also might consider assessing the scaled impacts of *Assistance* activities on health and healthcare utilization metrics associated with the targeted social intervention [e.g. diabetes-related readmissions that occur secondary to cyclic changes in food availability (Basu et al, 2017)].

Examples of performance measures related to *Assistance* activities are presented in **Table 4**.

Table 4. Applying Performance Measures to *Assistance* Activities: Food Security Example

Social Domain	Activity	Structural Measure	Process Measure	Outcome Measures
Food security	Referral to local food resources	Healthcare delivery organization has access to technology-based tool that facilitates referrals to local food benefits program	Number of members referred to local food benefits program/ members reporting food insecurity; measures can be stratified by race/ ethnicity	Number of members reporting improvements in food security at 3 months/ members reporting food insecurity at initial assessment; measures can be stratified by race/ ethnicity

Defining numerators and denominators

State Medicaid agencies will need to carefully consider numerators and denominators for social care process and outcome measures, since selection will shape the interpretation of program implementation and effectiveness. Consider differences between the numerators and denominators in the food security example provided in the figure below.

Figure 1. Selecting Numerators and Denominators for Outcome Measures: Food Security Example

Assessment Goal: Are local food resources leading to reductions in food insecurity?

Example A: Box 1/Box 2 reflects potential impact of food resources
- High performance rates are possible even if few patients were asked about food insecurity in this setting
- Requires information from one or more external resources; reporting timeline may be inconsistent with anticipated timeline for change in outcome
- Valuable for gauging quality of the food resources

Example B: Box 1/Box 5 reflects potential impact of offering resources to patients experiencing food insecurity
- Performance rates most likely to reflect potential reach of program
- Valuable for gauging impact across activity pipeline

Example C: Box 1/Box 8 reflects potential impact of offering resources to all patients
- Low performance rates possible since metric will capture patients who do not need assistance
- Valuable for gauging overall impact on patient populations

Alignment

Alignment activities in the NASEM social care framework move beyond healthcare delivery and member-level activities to explore ways that the healthcare sector can leverage its resources to better respond to community-level needs. One barrier to using performance measures for *Alignment* activities is that healthcare performance measures have traditionally been used to assess clinical topics [e.g., adherence to evidence-based guidelines, member outcomes, and changes in quality of care (Medicaid Innovation Accelerator Program, 2020)]. A second barrier is that in some settings (e.g., hospitals), regulations have limited the scope of quality measures to the members being served. However, Medicaid agencies' quality strategies have less narrow definitions and are not subject to the same legal restrictions. This means Medicaid agencies might consider MCO and provider measures that reflect (and potentially advance) this expanding area of population health practice.

Structural measures of *Alignment* activities should assess the capacity healthcare organization's need to facilitate community-level activities within and outside of the healthcare setting. The *Framework for Aligning Sectors* developed by the Georgia Health Policy Center, which highlights shared purpose, data, governance, and financing as alignment facilitators, might serve as a useful instrument for helping to design relevant structural measures (Georgia Health Policy Center, 2021). Drawing from this framework, a Medicaid agency interested in developing housing-oriented community partnerships could adopt metrics that capture shared governance (e.g., participation in a community-level housing development advisory committee). Perhaps signaling future federal investments in this area, recent federally-funded initiatives not only encourage but financially support *Alignment* structures. Examples include the Center for Medicare & Medicaid Innovation (CMMI) Accountable Health Communities demonstration, which required that sites participating in the program's Alignment track establish advisory boards comprised of health and social service organizations to facilitate coordination at the community level; and CMMI's Integrated Care for Kids model, which requires both Partnership Councils and information sharing across service delivery agencies (Center for Medicare & Medicaid Innovation, 2019).

Alignment process measures should focus on measuring the scope and scale of activities. To build on the housing-oriented community partnership example, a Medicaid agency might consider measuring the dollar amounts invested in housing-related collaborations or the number of constructed affordable housing units. Other process measures could include the number of health system staff involved in local collaborative community change initiatives focused on SDOH (e.g., a homelessness prevention council). For Medicaid agencies whose *Alignment* efforts extend beyond intersectoral partnerships to activities such as local hiring, procurement, and investments (Norris & Howard, 2015), examples of process measures might include the number of people hired from historically disinvested communities, the dollar amount of goods and services purchased from local BIPOC-owned businesses, and the dollar amount and/or percent of savings invested locally per year. The Healthcare Anchor Network has developed a set of *Alignment* process metrics for hospitals and other healthcare systems that could inform Medicaid-relevant adaptations (Healthcare Anchor Network, 2021). Several recent ranking efforts describing hospitals' community investments provide additional examples of possible process metrics (Plott et al, 2021; Lown Institute, 2021).

Given the broader scope of *Alignment* activities, accompanying outcome measures ideally will capture reductions in community-level social risk and improvements in health; reductions in health inequities by race, ethnicity, and socioeconomic status, and other forms of health inequity; and reductions in avoidable healthcare costs. The denominator for these outcome measures should be informed by the scale of the collaboration. For instance, the impact of developing 40 new affordable housing units through a housing-oriented community partnership might be reflected in tenants' housing stability or health status (e.g., reductions in untreated severe mental illness or in severity of chronic disease over a given period of time). A Medicaid agency contributing to the construction of 400 or more units, however, may be more interested in gauging regional impact of these housing investments. As with *Assistance*

efforts, the time horizon for impacts of some *Alignment* activities could be short (e.g., for funding of community eviction prevention efforts or food security resources), while others might be much longer (e.g., in the case of investments in new affordable housing development). For interventions with much longer timelines, it will likely be necessary to focus initially exclusively on structural and process measures. Similar to *Assistance* initiatives, *Alignment* efforts can impact many different health outcomes. Using more global health measures such as self-rated health or healthy days (CDC, 2000) in reportable performance measures may facilitate data aggregation and comparison.

The community focus of *Alignment* activities raises several unique considerations around performance measures. Relevant outcome data may not be available in internal health data systems. Instead Medicaid agencies likely will need to support new data collection efforts, such as community health needs assessments, or use data collected by other agencies. There also may be reluctance from MCOs and agency-contracted plans around performance measures for *Alignment* activities if they are construed as efforts to hold them accountable for community-level social conditions. Therefore, to the extent possible, *Alignment* measures should focus on the actions that an MCO or affiliated healthcare delivery systems can engage in and meaningfully influence.

Examples of performance measures related to *Alignment* activities are presented in **Table 5**.

Table 5. Applying Performance Measures to *Alignment* Activities: Housing Example

Social Domain	Activity	Structural Measure	Process Measure	Outcome Measures
Housing	MCO invests in community housing	Defined process through which MCO will invest its revenue	Dollar amount of MCO housing investments; number of housing units built	Shorter-term: changes in tenants' housing stability (measures can be stratified by race/ethnicity); Longer-term: changes in community-level homelessness rates (measurements can be assessed across multiple MCOs or community housing coalitions)

Building a suite of social care performance measures

A robust, mature social care system will involve activities related to *Awareness* as well as all three intervention categories (*Adjustment*, *Assistance*, and *Alignment*). Corresponding performance metrics (*Structural*, *Process*, and *Outcome* measures) should be used to help monitor and improve that system. This is not the current reality for any Medicaid agency; moving towards a multi-pronged implementation and evaluation strategy will take time to design and refine. Regardless of the order in which activities in the different NASEM intervention categories are implemented, a methodical assessment approach that takes context into account will ensure those activities lead to meaningful improvements. Outcomes, for instance, should not be measured until the inputs and processes for producing them are well understood.

Discussion

The introduction of new performance measures can influence healthcare system transformation, whether in state Medicaid programs, managed care entities, or provider organizations (Medicaid Innovation Accelerator Program, 2020). In the case of social care, performance measures can be leveraged to increase the likelihood that healthcare innovations related to member and community-level social adversity contribute to sustained and meaningful practice changes that advance health and health equity.

There are both unique barriers and facilitators to state Medicaid agencies developing and applying social care performance measures. As we describe in the sections above, some capacity for social care has yet to be developed and knowledge about the effectiveness of various intervention strategies continues to accumulate. Social care process measures often depend on data from non-healthcare sectors; and relevant outcomes may be difficult to capture, particularly in relatively short time frames. These challenges require creative problem-solving from state Medicaid agencies, MCOs, and healthcare delivery organizations, including novel partnerships and other investments. The phased roll out of social care performance measures can help to ensure stakeholders build capacity to advance work in this rapidly evolving field and can be responsive to emerging evidence. In the case of screening, for instance, Massachusetts' community health centers initially developed optional food security quality measures for reporting food security screening and only later phased in screening targets (e.g., 50% of population) once clinics' screening infrastructure (e.g., workflow, documentation platforms) had been developed.

The wide range of social care programs, system capacity, and effectiveness evidence makes it challenging to standardize structural, process, or outcome measures across states, regions, or even institutions. As an example, more evidence is needed on how specific Assistance strategies impact outcomes before establishing common measures of accountability. As both evidence and consensus grow around select social care tools and practices, measures adopted by individual organizations or agencies might eventually be aggregated to establish common metrics applied across multiple systems or geographic regions. Concerted efforts should be made to formalize and share learnings across regions, including through dedicated Medicaid social care learning collaboratives.

Finally, work to address socioeconomic adversity is one important component of a more multi-pronged strategy to address other deeply entrenched social forces—like racism and discrimination—that shape inequitable health outcomes targeted by many state Medicaid agencies. Beyond examining the implementation and effectiveness of social care programs in and across racial and ethnic populations (as highlighted in several examples above) ensuring that social care initiatives are centered on health equity goals, outcomes, and processes will require inviting a diverse set of stakeholders into the design of all measures and the interpretation of results (Humowiecki et al, 2018; American Institute for Research, 2021).

Activities to incorporate social care into healthcare delivery strategies should be guided by recognizable benchmarks that can support systems to establish needed infrastructure, gauge progress, and assess impacts. Despite their limitations, performance measures may be one useful lever for ensuring effective and sustained social care initiatives.

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