Physician-Focused Payment Model Technical Advisory Committee

Committee Members

Paul N. Casale, MD, MPH, *Chair* Lauran Hardin, MSN, FAAN, *Vice Chair* Jay S. Feldstein, DO Joshua M. Liao, MD, MSc Terry L. Mills Jr., MD, MMM Angelo Sinopoli, MD Bruce Steinwald, MBA Jennifer L. Wiler, MD, MBA December 9, 2021 Xavier Becerra, Secretary U.S. Department of Health and Human Services 200 Independence Avenue, SW Washington, DC 20201

Dear Secretary Becerra:

On behalf of the Physician-Focused Payment Model Technical Advisory Committee (PTAC), I am pleased to submit PTAC's report on the role of efforts to address social determinants of health (SDOH) and equity in optimizing health care delivery and value-based care transformation in the context of Alternative Payment Models (APMs) and physician-focused payment models (PFPMs). Section 1868(c) of the Social Security Act directs PTAC to: 1) review PFPMs submitted to PTAC by individuals and stakeholder entities; 2) prepare comments and recommendations regarding whether such models meet criteria established by the Secretary of Health and Human Services (HHS); and 3) submit these comments and recommendations to the Secretary.

Within this context, from time to time, it may be beneficial for PTAC to reflect on proposed PFPMs that have been submitted to the Committee to provide further advisement on pertinent issues regarding effective payment model innovation in APMs and PFPMs. In some cases, the importance of an emerging topic may lead PTAC to consider how proposals the Committee has reviewed in the past may inform that emerging topic. For example, PTAC may wish to assess information in previously submitted proposals and other sources that could serve to further inform the Secretary, as well as PTAC itself on these topics. This is the case regarding the topics of SDOH and equity.

From 2016 to 2020, PTAC received 35 proposals for PFPMs and voted on the extent to which 28 of these proposals meet the Secretary's 10 regulatory criteria. While SDOH and equity are not specifically identified by the Secretary as criteria used in PTAC's evaluation of proposed PFPMs, several proposals that were submitted to PTAC incorporated elements related to SDOH and equity (including health disparities) in the context of care delivery, performance measurement, and payment methodology. Given this, PTAC now sees value in reviewing SDOH-and equity-related elements within these proposals, along with current information on SDOH, equity, and value-based care transformation. To ensure

that the Committee was fully informed, the September 2021 public meeting included a themebased discussion on the role that efforts to address SDOH and equity can play in improving health care delivery and value-based care transformation, and how these efforts can be further optimized in the context of APMs and PFPMs. The theme-based discussion included listening session presentations by a PTAC member, a previous submitter, and several subject matter experts (SMEs), as well as a panel discussion with other SMEs on SDOH and equity. PTAC also requested public input during the public meeting and through a Request for Input (RFI).

This report provides PTAC's findings and valuable information on best practices for optimizing patient-centered health care delivery to address SDOH and equity. The information that PTAC has gleaned from a review of previous PFPM proposals and other literature that addressed this important topic, as well as input received during the theme-based discussion, will help to inform PTAC in its review of future proposals. This material has informed the Committee's comments, which are summarized in the following broad topic areas in this report:

- Category 1: Optimizing Patient-Centered Care Delivery;
- Category 2: Balancing Provider Accountability with Burden;
- Category 3: Improving Data Collection on SDOH- and Equity-Related Factors;
- Category 4: Measuring the Quality and Effectiveness of Efforts to Address SDOH and Equity; and
- Category 5: Addressing Payment Issues: Role of APMs and PFPMs.

Key highlights include:

- It is important to adopt a holistic view of health and health care that includes addressing
 patients' medical and non-medical needs. This can include using a broad multidisciplinary,
 cross-sector care delivery team; facilitating greater engagement and support of patients,
 their caregivers and families; and partnering with community-based organizations (CBOs).
- There is a need for greater collaboration between health care providers and CBOs in implementing SDOH- and equity-related initiatives. This would reduce burden on providers and help to leverage CBOs' familiarity with and networks within their communities. However, sustainability and durability of funding streams will affect the ability to encourage greater CBO involvement with both service delivery and the associated data collection.
- Value-based payment models can help to incentivize care transformation by providing
 adequate upfront and ongoing funding to support a range of SDOH- and equity-related
 activities, such as screening and providing referrals and/or services to assist in meeting
 patients' social needs. Within this context, it will be important to determine how best to
 allocate funding across providers in order to maximize value including whether funding
 should be targeted to a subset of providers who are likely to have the most impact.

- Other examples of innovations that could be embedded into future payment models include adjusting payments for social risk factors, incorporating SDOH- and equity-related performance metrics, expanding participation criteria, and consideration of the potential value of hybrid and/or multi-payer approaches within the same model.
- There are opportunities to further advance equity by considering a broader set of factors that can contribute to disparities (e.g., ageism and hearing impairment) in addition to those that are usually considered (such as race/ethnicity, housing stability and food insecurity).
- Consensus is needed on the most important SDOH- and equity-related indicators that
 providers and their partners should collect data on, and which of these indicators are most
 important to include in performance measurement (based on their ability to yield
 meaningful information about progress in addressing patients' social needs and reducing
 disparities). Potential data may include process measures (such as documenting screenings
 and referrals) as well as performance metrics (such as stabilization of housing).
- It will be important to avoid creating silos in data collection by incentivizing the development of partnerships, identifying how data collection will be distributed across and used by the participating entities, and ensuring interoperability and appropriate funding to facilitate data sharing.
- Since it may be difficult to collect individual-level data on sensitive health-related social needs (HRSNs), it will be important to consider how area-level and individual-level factors can be combined within a risk adjustment framework. For example, it may be desirable to explore whether the Medicare Geographic Practice Cost Index (GPCI) could be expanded to adjust for SDOH.

In addition to summarizing the Committee's findings and comments related to these topics, the report also identifies areas where additional research is needed, issues for policymakers and some potential next steps.

The members of PTAC appreciate your support of our shared goal of improving the Medicare program for both beneficiaries and the providers who care for them. PTAC members would be happy to discuss any of these observations with you. However, the Committee appreciates that there is no statutory requirement for the Secretary to respond to these comments.

Sincerely,

//Paul Casale//

Paul N. Casale, MD, MPH Chair

Attachment

REPORT TO THE SECRETARY OF HEALTH AND HUMAN SERVICES

Addressing Social Determinants of Health and Equity in Alternative Payment Models and Physician-Focused Payment Models

December 9, 2021

About This Report

The Physician-Focused Payment Model Technical Advisory Committee (PTAC) was established by the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) to: 1) review physicianfocused payment models (PFPMs) submitted by individuals and stakeholder entities; 2) prepare comments and recommendations regarding whether such models meet criteria established by the Secretary of Health and Human Services (HHS); and 3) submit these comments and recommendations to the Secretary. PTAC reviews submitted proposals using criteria established by the Secretary in regulations at 42 CFR §414.1465.

Within this context, from time to time, it may be beneficial for PTAC to reflect on proposed PFPMs that have been submitted to the Committee to provide further advisement on pertinent issues regarding effective payment model innovation in Alternative Payment Models (APMs) and PFPMs. Given that, in the past, several proposals that were submitted to PTAC incorporated elements related to social determinants of health (SDOH) and equity in the context of care delivery, performance measurement, and payment methodology, PTAC now sees value in reviewing these elements within these proposals, along with current information on SDOH and equity and value-based care transformation. To ensure that the Committee was fully informed, PTAC's September 2021 public meeting included a theme-based discussion on SDOH and equity in the context of APMs and PFPMs.

This report summarizes PTAC's findings and comments regarding the role efforts to address SDOH and equity can play in optimizing health care delivery and value-based care transformation within APMs and PFPMs. This report also includes: 1) areas where additional research is needed and some potential next steps; 2) a summary of the characteristics related to SDOH and equity from proposals that have previously been submitted to PTAC; 3) an overview of key issues relating to SDOH and equity and value-based care transformation; and 4) a list of additional resources related to this theme-based discussion that are available on the Office of the Assistant Secretary for Planning and Evaluation (ASPE) PTAC website.

Table of Contents

SUMMARY STATEMENT1			
١.	PTAC REVIEW OF SDOH AND EQUITY IN THE CONTEXT OF APMS AND PFPMS		
II.	DEFINITIONS OF SDOH, EQUITY, AND RELATED TERMS4		
	II.A. Social Determinants of Health (SDOH) 4		
	II.B. Health-Related Social Needs (HRSNs)5		
	II.C. Equity		
	II.D. Health Disparities		
	II.E. Behavioral Health6		
	II.F. Relationship Between Equity, SDOH, and HRSNs6		
III.	EVIDENCE OF EFFECTIVENESS OF SDOH AND EQUITY INITIATIVES8		
IV.	TRENDS IN REIMBURSEMENT MECHANISMS FOR SDOH AND EQUITY INITIATIVES8		
ν.	CHARACTERISTICS OF PTAC PROPOSALS RELATED TO SDOH AND EQUITY		
VI. TRA	KEY ISSUES RELATED TO OPTIMIZING SDOH AND EQUITY FOR VALUE-BASED CARE NSFORMATION IN THE CONTEXT OF APMs AND PFPMs11		
	VI.A. Role of Technology in Value-Based Care		
	VI.B. Importance of a Team-Based, Person-Centric, and Holistic Approach to Care		
	VI.C. Considerations for Improving SDOH- and Equity-Related Data Collection		
	VI.D. Opportunities for Better Advancing Equity		
	VI.E. Role of APMs or PFPMs in Addressing SDOH and Equity15		
VII.	COMMENTS FOR CONSIDERATION BY THE SECRETARY15		
	VII.A. Category 1: Optimizing Patient-Centered Care Delivery		
	VII.B. Category 2: Balancing Provider Accountability with Burden19		
	VII.C. Category 3: Improving Data Collection on SDOH- and Equity-Related Factors		
	VII.D. Category 4: Measuring the Quality and Effectiveness of Efforts to Address SDOH and Equity		
	VII.E. Category 5: Addressing Payment Issues: Role of APMs and PFPMs		
VIII.	CONCLUSIONS		
APP	ENDIX 1. COMMITTEE MEMBERS AND TERMS		
	ENDIX 2. CHARACTERISTICS OF SELECTED PTAC PROPOSALS IDENTIFIED AS BEING RELEVANT TO TH AND EQUITY, DECEMBER 2016 – SEPTEMBER 2020		
	ENDIX 3. ADDITIONAL RESOURCES RELATED TO PTAC'S THEME-BASED DISCUSSION ON IMIZING SDOH AND EQUITY IN APMs AND PFPMs44		
	ENDIX 4. SUMMARY OF PTAC COMMENTS ON OPTIMIZING SDOH AND EQUITY IN THE CONTEXT APMS AND PFPMS		

SUMMARY STATEMENT

From 2016 to 2020, the Physician-Focused Payment Model Technical Advisory Committee (PTAC) received 35 proposals for physician-focused payment models (PFPMs) and voted on the extent to which 28 of these proposals meet the Secretary's 10 regulatory criteria.ⁱ While social determinants of health (SDOH) and equity are not specifically identified by the Secretary as criteria used in PTAC's evaluation of proposed PFPMs, several proposals that were submitted to PTAC incorporated elements related to SDOH and equity (including health disparities) in the context of care delivery, performance measurement, and payment methodology. Given this, PTAC now sees value in reviewing SDOH- and equity-related elements within these proposals, along with current information on SDOH and equity and value-based care transformation. To ensure that the Committee was fully informed, the September 2021 public meeting included a theme-based discussion on the role that efforts to address SDOH and equity can play in improving health care delivery and value-based care transformation, and how these efforts can be further optimized in the context of APMs and PFPMs. The theme-based discussion included listening session presentations by a PTAC member, a previous submitter, and several subject matter experts, as well as a panel discussion with other subject matter experts on SDOH and equity. PTAC also requested public input during the public meeting and through a Request for Input (RFI).

This report provides PTAC's findings and valuable information on best practices for optimizing patient-centered health care delivery to address SDOH and equity. The information that PTAC has gleaned from a review of previous PFPM proposals and other literature that addressed this important topic, as well as input received during the theme-based discussion, will help to inform PTAC in its review of future proposals. This material has informed the Committee's comments, which are summarized in the following broad topic areas in this report:

- Category 1: Optimizing Patient-Centered Care Delivery;
- Category 2: Balancing Provider Accountability with Burden;
- Category 3: Improving Data Collection on SDOH- and Equity-Related Factors;
- Category 4: Measuring the Quality and Effectiveness of Efforts to Address SDOH and Equity; and
- Category 5: Addressing Payment Issues: Role of APMs and PFPMs.

Key highlights include:

• It is important to adopt a holistic view of health and health care that includes addressing patients' medical and non-medical needs. This can include using a broad multidisciplinary,

ⁱ The remaining seven proposals were withdrawn prior to the Committee's deliberation.

cross-sector care delivery team; facilitating greater engagement and support of patients, their caregivers and families; and partnering with community-based organizations (CBOs).

- There is a need for greater collaboration between health care providers and CBOs in implementing SDOH- and equity-related initiatives. This would reduce burden on providers and help to leverage CBOs' familiarity with and networks within their communities. However, sustainability and durability of funding streams will affect the ability to encourage greater CBO involvement with both service delivery and the associated data collection.
- Value-based payment models can help to incentivize care transformation by providing
 adequate upfront and ongoing funding to support a range of SDOH- and equity-related
 activities, such as screening and providing referrals and/or services to assist in meeting
 patients' social needs. Within this context, it will be important to determine how best to
 allocate funding across providers in order to maximize value including whether funding
 should be targeted to a subset of providers who are likely to have the most impact.
- Other examples of innovations that could be embedded into future payment models include adjusting payments for social risk factors, incorporating SDOH- and equity-related performance metrics, expanding participation criteria, and consideration of the potential value of hybrid and/or multi-payer approaches within the same model.
- There are opportunities to further advance equity by considering a broader set of factors that can contribute to disparities (e.g., ageism and hearing impairment) in addition to those that are usually considered (such as race/ethnicity, housing stability and food insecurity).
- Consensus is needed on the most important SDOH- and equity-related indicators that
 providers and their partners should collect data on, and which of these indicators are most
 important to include in performance measurement (based on their ability to yield
 meaningful information about progress in addressing patients' social needs and reducing
 disparities). Potential data may include process measures (such as documenting screenings
 and referrals) as well as performance metrics (such as stabilization of housing).
- It will be important to avoid creating silos in data collection by incentivizing the development of partnerships, identifying how data collection will be distributed across and used by the participating entities, and ensuring interoperability and appropriate funding to facilitate data sharing.
- Since it may be difficult to collect individual-level data on sensitive health-related social needs (HRSNs), it will be important to consider how area-level and individual-level factors can be combined within a risk adjustment framework. For example, it may be desirable to explore whether the Medicare Geographic Practice Cost Index (GPCI) could be expanded to adjust for SDOH.

In addition to summarizing the Committee's findings and comments related to these topics, the report also identifies areas where additional research is needed and some potential next steps.

I. PTAC REVIEW OF SDOH AND EQUITY IN THE CONTEXT OF APMS AND PFPMS

Background information was provided to PTAC on the role of SDOH and equity in the context of APMs and PFPMs, and issues and opportunities associated with optimizing efforts to address SDOH and equity in APMs and PFPMs. PTAC formed a Preliminary Comments Development Team (PCDT) consisting of four PTAC members (Jay Feldstein, DO; Lauran Hardin, MSN, FAAN; Angelo Sinopoli, MD; and Jennifer Wiler, MD, MBA). (See <u>Appendix 1</u> for a list of the Committee members.) The PCDT reviewed the background information and delivered a summary presentation to the full Committee during the September 2021 theme-based discussion. The theme-based discussion also included two listening sessions – the first with a PTAC member, and the second with a previous submitter and a diverse group of subject matter experts; a panel discussion with additional subject matter experts; and an opportunity for public comments to be included in the report to the Secretary (RTS).ⁱⁱ

Supplemental background information was developed to provide context based on additional reports and topics published and mentioned during the public meeting that were not addressed in the original background information provided to PTAC. Additionally, PTAC received nine public comments in response to an RFI that was posted in September 2021. The PCDT provided feedback on the supplement to the background information and a draft summary of the Committee's comments from the public meeting.

The remaining sections of this report provide information on the definitions of SDOH and equity and related concepts that have been used to inform the theme-based discussion; a summary of the characteristics of proposals that were previously submitted to PTAC and were determined to be relevant based on having substantial information related to SDOH and equity (see <u>Appendix 2</u>); an overview of key issues relating to SDOH, equity, and value-based care transformation; and a summary of PTAC's findings and comments, as well as areas where additional research is needed and potential next steps. <u>Appendix 3</u> provides a list of additional resources related to PTAC's SDOH and equity theme-based discussion that are available on the Office of the Assistant Secretary for Planning and Evaluation (ASPE) PTAC website. Finally, <u>Appendix 4</u> provides a tabular summary of PTAC's comments on optimizing SDOH and equity in the context of APMs and PFPMs.

ⁱⁱ Paul Casale, MD, MPH; and Lauran Hardin, MSN, FAAN were not in attendance at the September 27, 2021, public meeting.

II. DEFINITIONS OF SDOH, EQUITY, AND RELATED TERMS

Various public agencies and research organizations define the concepts of SDOH and equity in different ways, and there is no consensus on how to define these terms. For purposes of conducting the September 2021 theme-based discussion and producing supporting materials, PTAC used the definitions noted below for SDOH and equity, and their related concepts of HRSNs, health disparities, and behavioral health.

II.A. Social Determinants of Health (SDOH)

PTAC used a working definition of SDOH drawn from the Agency for Healthcare Research and Quality (AHRQ), as follows:

"SDOH, although experienced by individuals, exist at the community level. Healthcare systems that learn about the communities their patients live in, and the community-level barriers members can face to becoming and staying healthy, can better adapt their recommendations to people's lives. SDOH can be categorized into five key areas: social context, economic context, education, physical infrastructure, and healthcare context."¹

Exhibit II.1 outlines the factors associated with each of the five SDOH key areas included in AHRQ's definition. Health care providers can address SDOH in different ways depending on the key area. Interventions that address patients' SDOH in the *health care context* are ones that can be reasonably designed and implemented by health care providers themselves (e.g., to ensure that the care they provide is culturally and linguistically appropriate). In the *physical infrastructure* key area, health care providers can help patients gain access to social supports like food or transportation. In general, even though health care providers may not be able to directly address all of the SDOH key areas or all factors within a given key area, they can still engage with community leaders to advocate for policies and interventions that would address community-level SDOH and improve population health (e.g., anti-poverty interventions or improved environmental conditions).

SDOH Key Area	Related Factors
Social context	Demographics, social networks, and supports; social cohesion; racial, ethnic, religious, and gender discrimination; community safety; criminal justice climate; and civil participation.
Economic context	Employment, income, and poverty.
Education	Quality of day care, schools, and adult education; literacy and high school graduation rates; and English proficiency.
Physical infrastructure	Housing, transportation, workplace safety, food availability, parks and other recreational facilities, environmental conditions, and sufficiency of social services.

Exhibit II.1. AHRQ's Five Key Areas of SDOH

SDOH Key Area	Related Factors
Health care context	Access to high-quality, culturally and linguistically appropriate, and health- literate care; access to insurance; health care laws; health promotion initiatives; supply side of services; attitudes toward health care; and use of services.

II.B. Health-Related Social Needs (HRSNs)

Although all people who live in the same community experience common community-level SDOH as part of the policies, practices, culture, infrastructure, and other traits that make up their environment, individuals have different physical, social, and emotional needs. These individual HRSNs are *"non-medical patient needs that impact health (such as housing instability, food insecurity, and exposure to interpersonal violence)."*² Generally, health care systems and providers are equipped to assess and address individual patient needs, rather than community-level SDOH.

II.C. Equity

PTAC used a working definition of equity drawn from the Centers for Disease Control and Prevention (CDC), as follows:

"Health equity is achieved when every person has the opportunity to attain his or her full health potential and no one is disadvantaged from achieving this potential because of social position or other socially determined circumstances."³

Health inequities are reflected in differences in length of life; quality of life; rates of disease, disability, and death; severity of disease; and access to treatment. Differences in health are striking in communities with poor SDOH, such as unstable housing; low-income, unsafe neighborhoods; or substandard education.

II.D. Health Disparities

PTAC used a working definition of health disparities drawn from Healthy People 2020's description of health disparities, according to which:

"[Health disparities are] a particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage. Health disparities adversely affect groups of people who have systematically experienced greater obstacles to health based on their racial or ethnic group; religion; socioeconomic status; gender; age; mental health; cognitive, sensory, or physical disability; sexual orientation or gender identity; geographic location; or other characteristics historically linked to discrimination or exclusion."⁴ Healthy People 2020 specifies that a phenomenon needs to be linked to a systematic disadvantage or injustice in order to be considered a health disparity and not a health difference. For example, the higher rates of breast cancer among women compared to men and health advantages for foreign-born Hispanics in the United States over U.S.-born Hispanics are identified as health differences, not health disparities.^{5,6}

II.E. Behavioral Health

Behavioral health describes the link between behaviors and a person's physical, mental, and spiritual health and well-being. PTAC used a working definition drawn from AHRQ, according to which behavioral health is:

"An umbrella term that includes mental health and substance abuse conditions, life stressors and crises, stress-related physical symptoms, and health behaviors. Behavioral health conditions often affect medical illnesses."⁷

II.F. Relationship Between Equity, SDOH, and HRSNs

Addressing SDOH and its various key areas is an approach that can be used to improve equity and reduce disparities. As shown in Exhibit II.2, equity exists at the system level, SDOH exist at the community level, and HRSNs exist at the individual level. Yet addressing SDOH at the community level can reduce the number of HRSNs that individuals experience. Finally, not all methods of improving equity involve addressing SDOH. Examples of additional ways to advance equity objectives include improving access to and quality of care, and collecting the data needed to track outcomes for different groups.





II.G. Role of Efforts to Address Social Needs in Care Coordination and Value-Based Care

As shown in Exhibit II.3, some estimates suggest that health care only contributes 20 percent to patients' health, while socioeconomic factors and the physical environment contribute 50 percent.^{8,9} This emphasizes the importance of coordinating among all providers and community-based organizations (CBOs) that are involved in the patient's clinical, behavioral health, and SDOH-related needs, and managing key transitions within the context of care coordination and value-based care. Care coordination is viewed as a means of achieving the overall objective of coordinated care – improving health outcomes by providing high-quality care and eliminating redundant health care system costs. Some of the functions that the Agency for Healthcare Research and Quality has identified as being important for care coordination, depending on patient needs, include assessing patient needs and goals (including clinical, behavioral health and SDOH needs), and linking patients with community resources.¹⁰

Participating entities in some CMMI models have included performance metrics related to improving provider accountability and motivate physicians and other care providers to address issues related to SDOH and equity. For example, the Multi-Payer Advanced Primary Care Practice demonstration stratified health service utilization data by race, income, geographic location, and other socioeconomic factors that underpin SDOH and health-related disparities.

Exhibit II.3. Estimated Relative Contributions to Health



What Goes Into Your Health?

Note: Genetic factors were not included in estimates.

Source: Hussein T, Collins M. The Community Cure for Health Care. Standford Social Innovation Review. 2016. https://ssir.org/articles/entry/the community cure for health care

III. EVIDENCE OF EFFECTIVENESS OF SDOH AND EQUITY INITIATIVES

A range of SDOH and equity interventions have been shown to improve health outcomes, including some that are appropriate for direct implementation by providers. For example, health care providers may be well-positioned to directly implement interventions that address patients' SDOH in health care contexts. Culturally and linguistically competent care and tailored educational sessions have been associated with improvements in chronic disease, psychosocial, and patient and provider behavior outcomes.^{11,12,13} Programs that aim to reduce out-of-pocket costs, such as patient assistance programs, community paramedicine, and expanding access to Medicaid and Accountable Care Organizations (ACOs), have improved chronic disease outcomes, medication adherence, and quality of care, as well as reduced costs.¹³ Similarly, health literacy and health education interventions have improved chronic and infectious disease outcomes and pain management.¹³

Health care providers may be well-positioned to support individual patients in dealing with unmet social needs (e.g., transportation barriers, food insecurity, housing insecurity) by screening for such needs, and then helping their patients to access community-based benefits and support services. For example, research indicates that interventions to minimize transportation barriers reduced medically unnecessary emergency department (ED) visits.^{13,14} Similarly, housing interventions were associated with positive outcomes for HIV-related clinical outcomes, hospital utilization, and birth weight, and interventions to improve food security were associated with improved diabetes and dietary outcomes.^{15,16,17,18}

Finally, at a broader level, health care providers can engage with local community leaders to advocate for policies and interventions toward addressing community-level SDOH and improving population health. For example, anti-poverty interventions (e.g., minimum wage increases) were associated with improved birth outcomes, maternal mental health outcomes, and perceptions of health and reduced problem behaviors among children.^{19,20,21} Interventions targeting environmental conditions (e.g., smoke-free space policies, built environment strategies to promote safety) showed beneficial effects on respiratory health, injury, and smoking behaviors.¹³

IV. TRENDS IN REIMBURSEMENT MECHANISMS FOR SDOH AND EQUITY INITIATIVES

To date, many payment model structures have been used to address SDOH, including ACOs, bundled payments, capitation, and global budgets. However, while many organizations and payers are working to incorporate social risk, there has been limited empirical research assessing which strategies are the most effective, replicable, and scalable.^{22,23}

Federal Payers. In traditional Medicare fee-for-service (FFS), there is no broad or central mechanism to pay for services that are "not reasonable and necessary" for the diagnosis or treatment of illness or injury or to improve functioning. However, the Center for Medicare and

Medicaid Innovation (CMMI) has explored and tested alternative payment approaches that address SDOH services for Medicare FFS beneficiaries. For example, the Accountable Health Communities Model systematically identifies and addresses HRSNs for Medicare and Medicaid beneficiaries through screening, referrals to CBOs, and community navigation services.²⁴ Additionally, under the Round 2 State Innovation Models (SIM) Initiative, all 11 states that received grants had plans to establish connections between primary care and CBOs or social services organizations. The Centers for Medicare & Medicaid Services (CMS) has also created policy options that include coverage for non-health care services under Medicare Advantage (MA), and since 2018, MA plans have been offering non-medical supplemental benefits, including meal delivery and transportation, in addition to the types of supplemental benefits that they were already providing, such as lower cost sharing or lower premiums. Research has shown that between 2018 and 2020, the number of MA plans offering non-medical supplemental benefits doubled. However, some services were offered at a higher rate than others (e.g., meal services and transportation services were offered more frequently relative to home modification services).²⁵

State Payers. A recent analysis found that 18 states and Washington, D.C., have begun taking steps toward establishing statewide SDOH initiatives for Medicaid enrollees, although most states did not explicitly require or provide financial resources for SDOH services. State Medicaid agencies can cover SDOH-related services using home- and community-based services (HCBS) Section 1915 waivers, Section 1115(a) demonstration waivers, and Delivery System Reform Incentive Payment (DSRIP) initiatives under Section 1115 demonstration waivers. Increasingly, state-based Medicaid Managed Care Organizations (MCOs), which receive capitated payments, are also engaging in activities to address SDOH, such as coordinating with CBOs to link members to needed services, assessing social needs, and maintaining community resource databases. In a 2020 report published by Manatt Health, researchers found that 38 of 39 states and territories included in their analysis had at least one contractual requirement for Medicaid MCO plans related to SDOH.²⁶

Commercial Payers. In recent years, there has been growing interest from commercial insurers in integrating activities to address SDOH. For example, Aetna has created an SDOH index that includes measures of total family income, poverty, disability, education, family structure, and employment.²⁷ However, SDOH efforts through commercial insurers to date are primarily carried out by their philanthropic arms and do not involve changes in benefit designs or reimbursement policies.²⁸

V. CHARACTERISTICS OF PTAC PROPOSALS RELATED TO SDOH AND EQUITY

Between 2016 and 2020, PTAC received 35 proposed PFPMs submitted by stakeholders.ⁱⁱⁱ Of the proposal submissions that were reviewed by PTAC, nine were identified as having substantial information related to SDOH, and therefore, were also relevant to equity.^{iv} As shown in <u>Appendix 2</u>, the nine proposals differed along the dimensions of their SDOH- and equity-related objectives, AHRQ's SDOH key areas addressed, SDOH-related functions, targeted patient needs, and payment approaches:

- SDOH- and equity-related objectives or requirements: All nine proposed PFPMs included an SDOH, equity, or behavioral health model objective or requirement. Three of the PTAC proposal submissions sought to address HRSNs to support beneficiaries' optimal well-being through care coordinators or multidisciplinary care teams that included social workers. Other proposal submissions incorporated social factors into risk adjustment and risk stratification methodologies to avoid adverse selection and to promote equity and access.
- **AHRQ's SDOH key areas addressed:** All nine proposal submissions addressed some factors in the *health care context* and *social context* key areas identified by AHRQ.
- SDOH-related functions: All nine proposed models had a basic structure in place to monitor progress and follow up on HRSNs, and usually, a medical provider or similar professional was available to provide this support; six of the nine PTAC proposals models proposed using interdisciplinary teams to address HRSNs. In seven of the nine PTAC proposals, providers or care coordinators also provided referrals to behavioral health or social services resources in the community to address patients' unmet needs. A few proposed models engaged in SDOH-based performance measurement, provided a patient-centered care experience that considers social and demographic factors, and shared information with other CBOs on clinical and non-clinical factors.
- **Targeted social, behavioral health, and physical wellness needs of patients:** Even though each of the nine PTAC proposals generally described screening efforts to address HRSNs, most of the proposed models did not provide any specific information on the types of social and/or behavioral health needs they proposed addressing. A few proposals noted physical wellness needs of patients, such as supporting behavior change related to diet, physical activity, obesity prevention, and weight management.

ⁱⁱⁱ The 35 proposals submitted to PTAC represent an unduplicated count (i.e., proposals with multiple submissions are counted only once) of the number of proposals; 28 proposals were voted and deliberated on by the Committee, and seven proposals were withdrawn by submitters prior to deliberation, including one proposal that was withdrawn prior to any review by the Committee.

^{iv} SDOH was prioritized for this determination since addressing SDOH is considered to be a necessary condition for advancing equity. The determination of "substantial information related to SDOH" was made on the basis of a keyword search approach, wherein searches on various proposal-related documents were conducted using "social," "SDOH," "SDH," "social needs," "risk factors," "support services," and other similar terms.

Proposals also addressed behavioral health needs such as psychosocial needs, mental health and stress, and interpersonal safety. One proposal mentioned targeting financial strain for social needs.

• **Payment approaches for SDOH and equity:** The nine proposed PFPMs varied widely in how they structured payments to encourage addressing SDOH and equity. Per beneficiary per month (PBPM) payments that reimbursed providers for SDOH and equity efforts, at least in part, were the most common payment model methodology. All of the proposed models included adjustments for clinical risk factors, and five also proposed adjustments for social risk factors. Other proposed payment approaches included providing monthly or quarterly capitated payments, performance-based payments where providers were evaluated on SDOH- and equity-related measures, and population-based payments.

VI. KEY ISSUES RELATED TO OPTIMIZING SDOH AND EQUITY FOR VALUE-BASED CARE TRANSFORMATION IN THE CONTEXT OF APMs AND PFPMs

This section describes key issues related to optimizing SDOH and equity for value-based care that were discussed by a previous submitter, subject matter experts (SMEs), and public commenters during the September 2021 theme-based discussion. Additional information about these issues can be found in the materials listed in <u>Appendix 3</u>.

VI.A. Role of Technology in Value-Based Care

SMEs noted that technology is a key enabler for addressing SDOH and equity in value-based care. Drawing from their own experiences, a few SMEs identified a **Health Information Exchange (HIE)** as one mechanism for efficiently addressing SDOH on a broad scale. HIEs typically include patient-level clinical information from all points of care in a state or region. While HIEs usually include data from health care providers, data related to other kinds of services may be included as well. One SME highlighted how during the COVID-19 public health emergency, an HIE helped to create and mobilize a network of community health workers (CHWs), which helped to develop a pandemic-support program that provided income support and supplies to individuals experiencing social isolation. It was emphasized that, as HIEs are created, it is crucial to work closely with CBOs so that data can be shared quickly and efficiently across care teams. Suggestions were made regarding developing mechanisms that would allow CBOs, especially smaller ones, to contribute information into the HIE and for larger MCOs to aggregate and "democratize" access to data to improve access to different kinds of support.

SMEs noted that providers and practices do not currently capture individual-level SDOH data on a widespread basis. One SME suggested that if individual-level data are not available or are challenging to collect, then an alternative is for providers to **link neighborhood and clinical data in a single or shared platform**, for example, via the Population Health Assessment Engine (PHATE). The PHATE can geospatially identify high-risk communities where patients reside based on the degree of social deprivation in those communities. Geographic-level data can be useful for patient-centered care because patients will be impacted by the health of their community even if they do not experience all of the community-level risks. The same SME further noted that a physician practice area mapped using the PHATE tool could also be used to assign CHWs to patients. For example, a residency practice in Lawrence, Massachusetts, used the tool not only to define its service area but also to identify patients in that area who had been screened for food insecurity. The practice then worked in specific neighborhoods to create mobile food pantries to which appropriate patients could be referred.

VI.B. Importance of a Team-Based, Person-Centric, and Holistic Approach to Care

Several individuals across the listening session, panel discussion, and public comment session expressed that a **broad and diverse care delivery team is essential** for effectively addressing SDOH and advancing equity. Additionally, a public commenter noted the value of having a care team that includes a social worker who can help to look at SDOH directly. A previous submitter and some SMEs offered the following examples of team-based approaches to care delivery:

- The Community Aging in Place-Advancing Better Living for Elders (CAPABLE) program, which
 was established (initially in Baltimore, Maryland) as a client-centered home-based
 intervention with the objective of increasing mobility, functionality, and capacity for lowincome older adults to age-in-place. CAPABLE services are delivered in the home over a
 four-month period by a team including a registered nurse, occupational therapist, and
 handy worker;
- The Healthy Alliance Independent Practice Association (IPA), a program that was created from a Section 1115 waiver that was granted to New York in 2015. The Alliance is comprised of a regionally shared network of organizations in the state's Capital Region that provide social care services which are currently not billable to Medicaid; and
- The Healthcare in Action (HIA) program, a mobile physician unit scheduled to be launched on January 1, 2022, by the SCAN Health Plan. HIA will use a street medicine model to address health disparities among California's older adult homeless population. While a nurse practitioner and physician assistant will be the main primary care clinician team, HIA will also hire individuals with lived experience with homelessness as an additional peer resource for patients.

Many participants in the theme-based discussion noted that a **shared commitment and engagement with the community** is key to meeting the needs and goals of patients holistically and for co-creating solutions. In this regard, one SME emphasized the importance of providers engaging with communities on a routine and frequent basis. She indicated that legislation passed in New Jersey in February 2020 allowed the Camden Coalition to work with state, county, and community partners to develop a Regional Health Hub that enables multiple sectors to meet regularly to address state priorities and pressing health concerns, including COVID-19. Another SME suggested that provider organizations hire a chief community officer to serve as a community liaison and a chief primary care officer who is well-informed about primary care resources available in the community. Having the right infrastructure in place to ensure that individuals across sectors have a mechanism for communicating and sharing information is central to facilitating collaboration. One SME noted that it is especially important to harness the infrastructure that grassroots organizations bring, and provide funding and support to build the capacity of these organizations. Public commenters noted the unique position of ACOs to address social needs and the need for improving their access to care coordination data, and the importance of exchanging experiences so that organizations can learn from one another.

SMEs also discussed the **need for more engagement with patients and their families**. One highlighted the term "personal determinants of health" as referring to the unique needs, skill sets, and characteristics of individual patients. Others emphasized the importance of keeping patients at the center of intervention design efforts. The previous submitter's proposed model – CAPABLE – included a patient-centered approach that was designed to maximize patients' independence and self-efficacy. One SME indicated that while building patient engagement, there should be more focus on health literacy, and greater efforts to provide information to patients in simple, clear terms so that instructions are easy to understand, and patients are not inappropriately labeled as noncompliant. Additionally, a SME suggested that, in addition to a focus on person- or patient-centered care, it is important to acknowledge the role and burden of caregivers.

VI.C. Considerations for Improving SDOH- and Equity-Related Data Collection

Participants in the theme-based discussion also addressed some issues related to the collection of SDOH- and equity-related data. They broadly shared the view that when it comes to screening for social needs, it is important to have a **common screening tool across all participating partners**. SMEs mentioned the *Health Leads Screening Toolkit* and the *Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences (PRAPARE)* tool as two specific examples. Another example that was provided related to the North Carolina-based network called NCCARE360, where standardized screening questions are used throughout the state both in the health care and CBO settings. SMEs also emphasized that when screening for social needs, it is important that medical providers have the infrastructure and resources needed to be able to take action based on findings, including having the ability to share social needs data captured in their electronic health records (EHRs) with CBOs and CHWs.

SMEs noted that **providers should be adequately trained to collect sensitive data from their patients.** They indicated that a key first step involves establishing a trusting relationship early on between the patient and provider, to reduce barriers to gathering important information. One SME noted that providers face challenges in asking sensitive questions relating to race/ethnicity or interpersonal safety, and training providers on trauma-informed approaches can help to ensure that they are comfortable asking these types of questions. Another SME suggested the use of technology-enabled screening approaches because they may remove the perception of judgment in some situations.

Finally, some suggestions were offered regarding the **types of data that should be more routinely collected**, including:

- At the practice level, data on no-shows, to highlight where patients may be facing problems and barriers to accessing care;
- Community-level data related to social and mental health care needs; and
- Equity-related data such as patient demographics; however, aSME noted the importance of streamlining this data collection across partners so that patients are not burdened by being asked the same questions at different points of care.

VI.D. Opportunities for Better Advancing Equity

While awareness about the vulnerabilities of older adults and marginalized communities continues to be raised in the context of value-based care, SMEs discussed the importance of **additional efforts related to achieving health equity**, as follows:

- Considering ageism in discussions around inequities, in addition to other factors such as race/ethnicity (for example, related to the ability to use virtual technology);
- Acknowledging and accommodating the needs of the hearing-impaired in virtual care delivery or telehealth (for example, via free captioning services); and
- Implementing broader care delivery mechanisms, for example, by providers accepting walkins, child and parent visits at the same time, parent and elder visits at the same time, and caretaker and elder visits at the same time; and conducting visits in the community.

Participants in the theme-based discussion also agreed that **while it is important to screen individual patients for HRSNs, it is also important to improve the health of communities**. For example, one SME noted the role that large health care systems and institutions can play in improving the welfare of their lowest paid workers, such as by paying living wages and supporting educational opportunities for employees and their children. Other suggestions offered by SMEs included advocating for a (minimum) level of insurance coverage that is needed for all people to have equitable opportunities to be healthy, and making greater investments in addressing behavioral health, since behavioral health often presents barriers to accessing care. A public commenter suggested that one approach to delivering services in a more inclusive manner could involve targeting them to the entire population in a high-needs geographic area, rather than to only those living in poverty, which can also help to reduce stigma associated with the take-up of such services. One SME provided the example of the Health Care Collaborative (HCC) of Rural Missouri, whose focus is on developing and implementing programs that are responsive to documented health needs of rural county residents. However, she noted that a lack of broadband access posed some barriers to the collaborative's use of health information technology.

VI.E. Role of APMs or PFPMs in Addressing SDOH and Equity

SMEs made remarks related to **performance measures relevant for addressing SDOH and equity**. Some SMEs suggested that there may not be a need for new measures to be developed, given the existence of measure sets such as the Healthcare Effectiveness Data and Information Set (HEDIS), which can be stratified by patient characteristics. However, it was noted that any measures selected for performance reporting should be disparities-sensitive measures, and appropriate target levels should be set for measuring progress. One SME suggested that performance measurement could incorporate both individual- and area-level deprivation measures. For example, area-based performance measurement could assess the degree to which health care systems were using data to identify where the highest-need patients reside.

Participants in the theme-based discussion also discussed opportunities for creating **payment approaches that can support and incentivize care transformations** for addressing SDOH and equity. One SME suggested that funders should predefine the goals of reduced total cost and improved patient health outcomes at the outset, and anchor not only funding amounts to these goals but also accountability mechanisms for how the funds are used and the consequent results that are achieved. Specific payment approaches that were suggested included the following:

- Providing flexible funding to both providers and their community partners, specifically to support ACOs in expanding the provision of social services;
- Recognizing that area-level deprivation indices are a viable, reliable, and sustainable mechanism for payment adjustments (based on evidence from international contexts such as the United Kingdom and New Zealand);
- Enabling upfront investments, especially for smaller or mid-sized practices, that can help to incentivize partnerships between the health care and social services sectors; and
- Implementing a needs-based capitation payment approach that can support all aspects of care.

VII. COMMENTS FOR CONSIDERATION BY THE SECRETARY

Based on findings from the Committee's analysis of SDOH- and equity-related components in PTAC proposals; information in the literature; listening session presentations by a PTAC member, a previous submitter, and SMEs; and a panel discussion with additional SMEs on SDOH and equity, this section summarizes PTAC's comments regarding the role efforts to address SDOH and equity can play in optimizing health care delivery and value-based care

transformation, and how these efforts can be further optimized in the context of APMs and PFPMs. PTAC's comments are organized in five categories:

- Category 1: Optimizing Patient-Centered Care Delivery;
- Category 2: Balancing Provider Accountability with Burden;
- Category 3: Improving Data Collection on SDOH- and Equity-Related Factors;
- Category 4: Measuring the Quality and Effectiveness of Efforts to Address SDOH and Equity; and
- Category 5: Addressing Payment Issues: Role of APMs and PFPMs.

For each topic, relevant issues are highlighted, followed by a summary of PTAC's comments. Additionally, the Committee has identified areas where additional research is needed and potential next steps related to each topic. <u>Appendix 4</u> includes a complete list of the Committee's comments.

VII.A. Category 1: Optimizing Patient-Centered Care Delivery

Committee members have identified the following activities as being particularly important for optimizing patient-centered care delivery in the context of APMs:

- Taking a holistic view of health and health care that includes addressing patients' clinical/physical wellness needs, behavioral health needs, and social needs; and
- Eliminating population-specific barriers for advancing health equity.

Taking a holistic view of health and health care that includes addressing patients' clinical/physical wellness needs, behavioral health needs, and social needs. There is growing recognition that health outcomes are affected not only by medical care received, but also by other individual- and community-level non-medical factors that impact patients' health and health care experiences, including their physical and behavioral health status. Research has shown that addressing HRSNs can have positive impacts on health outcomes; for example, interventions to minimize transportation barriers reduced medically unnecessary ED visits. Even among adults aged 60+, assistance primarily provided to alleviate food insecurity has been shown to result in reduced cost-related medication nonadherence, hospitalizations, ED visits, and overall health care costs.^{29,30,31} Some health care providers have collected data on patients' SDOH and HRSNs and used this information to assist in referring patients to additional resources to address these needs.

To encourage more efforts and solutions to address the association between non-medical factors and health outcomes, it is important to find a way to incorporate SDOH into the medical lexicon so that it is not perceived as being outside of the scope of standard medical care. Despite available evidence regarding the value of multidisciplinary teams working together across the health care and social services sectors, the uptake of such teams has been limited,

largely due to insufficient reimbursement. There is a need to acknowledge the importance of coordination among traditional and non-traditional care team members and provide for adequate reimbursement for the full range of activities related to improving patients' health. It will also be important to incentivize partnerships so that the various members of a multidisciplinary, cross-sector care delivery team do not operate in a siloed fashion, and to avoid duplication of activities (and therefore, funding).

Finally, the importance of family and other caregivers is often overlooked in the provision of patient-centered care. Despite playing a critical role in care coordination and delivery for many patients, particularly those with complex health care needs, the caregiver population has not received adequate recognition and support for their efforts. In addition to the physical and mental toll associated with caregiving, caregivers can incur substantial costs related to looking after their loved ones and patients. It will be important to start quantifying the financial burden experienced by caregivers of various types of patients with SDOH-related needs and identifying options for assisting them in providing care.

Eliminating population-specific barriers for advancing health equity. While SDOH and HRSNs may independently affect health outcomes, in many circumstances they are also a product of structural factors that contribute to disparities and inequities. Moreover, these factors may affect individuals throughout their lives and even have intergenerational impacts. While there has been progress toward identifying factors that can contribute to health disparities, not all factors have received appropriate attention.

For example, ageism in health care (whether implicit or explicit) is an important concern. Certain perceptions relating to older adults – such as assumptions about their ability to use technology and therefore, benefit from telehealth – can limit their access to technologydependent services and create barriers to achieving health equity. Given that older adults are one of the largest groups of health care users, efforts are needed to address ageism in the health care and related sectors.

Similarly, while the use of telehealth has surged in the wake of the COVID-19 public health emergency, it has also exacerbated health disparities given the "digital divide" that exists across patient populations along dimensions such as age, race, geographic location, and socioeconomic status. However, equitable access to technology alone is not sufficient to remove disparities in telehealth; there is also a need for providing accommodations to assure accessibility. As health care delivery continues to shift toward increased use of virtual modalities, it is critical that tools and services account for barriers faced by certain populations. For example, use of translation and closed captioning may be important for ensuring access to services for the hearing-impaired population.

PTAC's comments, areas where additional research is needed, issues for policymakers, and next steps regarding optimizing patient-centered care delivery are included in Exhibit VII.1.

Exhibit VII.1: PTAC Comments, Areas for Additional Research, and Potential Next Steps

Category 1: Optimizing Patient-Centered Care Delivery

Comment 1A. There is increasing recognition of the importance of taking a holistic view of health care that includes addressing individual- and community-level non-medical factors that can have an impact on patients' health. However, there is a need to incorporate social determinants into the medical lexicon, so that efforts to address these issues will no longer be perceived as being outside of the scope of standard medical care.

Comment 1B. *Studies have shown that efforts to address patients' HRSNs can reduce hospitalizations and ED visits, as well as overall health care costs.*

Comment 1C. *Multidisciplinary teams are central for addressing the association between non-medical factors and health outcomes. However, there is a need to acknowledge the importance of coordination among traditional and non-traditional care team members and provide adequate reimbursement for the full range of patient-centered activities.*

Comment 1D. While there has been significant progress toward identifying factors that can contribute to health disparities, additional focus is needed on issues related to ageism and hearing-impaired patients.

Comment 1E. There is a need to begin quantifying the financial burden experienced by caregivers of various types of patients with SDOH-related needs and to identify options for assisting caregivers in providing care.

Areas Where Additional Research Is Needed

- What are best practices for addressing SDOH, HRSNs, and equity in the clinical setting, and how do they vary by type of setting and context?
- How many patients are currently being cared for by multidisciplinary, cross-sector teams that address their clinical, behavioral health and social needs?
- What are best practices for leveraging multidisciplinary and cross-sector teams to optimize patient-centered care, including health care, behavioral health, and social services?
- What types of funding streams and reimbursement are available to support the provision of patient-centered care? What infrastructure and funding needs exist related to improving the uptake of multidisciplinary and cross-sector teams?
- How can medical training be improved to encourage and enable all providers to implement efforts to address SDOH and equity?
- What financial and other burdens are experienced by caregivers, and how do they vary by patient population? How can payment and care delivery models support caregivers?
- What are examples of equitable telehealth approaches that have been effective at supporting care for beneficiaries in their home (e.g., remote patient monitoring)?

Key Issues for Policymakers

• What SDOH and equity-related initiatives are likely to be most effective in increasing access to multidisciplinary, cross-sector teams to address the needs of the most vulnerable patient populations?

Potential Next Steps

- Consider partnering with a diverse array of stakeholders to begin developing standards for patient-centered care that include addressing SDOH and equity.
- In the context of APMs, consider including incentives for the formation of multidisciplinary teams and providing infrastructure support and ongoing funding for various participating entities to engage in SDOH- and equity-related efforts.

VII.B. Category 2: Balancing Provider Accountability with Burden

The following considerations were identified as being important for alleviating burden on providers while also holding them responsible for addressing SDOH and equity:

- Clarifying the role of health care providers and reducing burden; and
- Encouraging shared responsibility with communities by providing needed support.

Clarifying the role of health care providers and reducing burden. While the health care industry has made progress toward acknowledging and addressing patients' non-medical needs, particularly during the COVID-19 public health emergency, it is not feasible for health care providers to bear all of the responsibility related to addressing these needs. In the context of efforts to address SDOH and equity, health care providers are often subject to expectations related to screening patients for HRSNs, being aware of and referring patients to community-based resources, monitoring and following up with their patients to ensure that they are using community resources, and collecting related data to support measurement of outcomes. While these dimensions of providing holistic care are important, additional support for coordination and partnership is needed. Health care providers need reliable funding to support their participation in initiatives related to addressing SDOH and equity, including data collection and related care coordination. They also need the necessary data infrastructure, and well-trained and well-compensated staff. Additionally, there is a need to reduce the administrative burden associated with collecting these types of data and coordinating care between health care and social services providers.

Encouraging shared responsibility with communities by providing needed support.

Collaboration between providers and CBOs is a key component for ensuring the sustainability of SDOH- and equity-related initiatives. To reduce burden on health care providers, more responsibility could be shared by CBOs – including organizations known as community collaboratives that seek to foster collaboration between health care providers and multiple

community organizations to address issues related to SDOH – to engage in service delivery, service coordination, and the associated data collection. These organizations are often better positioned to assist in addressing patients' non-medical needs, given their familiarity with and networks within their communities. However, appropriate incentives, supports, and other related infrastructure need to be in place to facilitate the provision of services related to addressing patients' non-medical needs by CBOs. Payment sustainability and durability will affect CBOs' willingness and ability to work with health care providers in coordinating care for patients. In addition to reimbursement for ongoing activities, CBOs also need adequate resources to set up the operational and data infrastructure required to support activities like screening for patient needs, receiving referrals and serving patients or making referrals to other social services organizations if needed, and monitoring the uptake of those services.

PTAC's comments, areas where additional research is needed, issues for policymakers, and next steps regarding balancing provider accountability with burden are included in Exhibit VII.2.

Exhibit VII.2: PTAC Comments, Areas for Additional Research, and Potential Next Steps

Category 2: Balancing Provider Accountability with Financial and Overall Burden

Comment 2A. Providers need reliable funding to support their increased participation in initiatives related to addressing SDOH and equity, including data collection and care coordination. Providers also need the right infrastructure, and appropriately trained and compensated staff. Additionally, there is a need to reduce the administrative burden associated with collecting these types of data, and coordinating care between health and social services providers.

Comment 2B. It is unrealistic to expect health care providers to bear all of the responsibility for ensuring that screening for non-medical needs, necessary referrals, and follow-up occur.

Comment 2C. One way to reduce provider burden associated with implementing SDOH- and equity-related interventions could involve encouraging greater involvement of CBOs, with both service delivery and the associated data collection. This may also be beneficial given their familiarity with networks within their communities. However, payment sustainability and durability will affect CBOs' ability to work with health care providers in coordinating care for patients.

Areas Where Additional Research Is Needed

- What are best practices for cross-sector and multidisciplinary care coordination?
- How many providers are currently participating in multidisciplinary, cross-sector initiatives related to addressing SDOH and equity? What challenges are these providers experiencing? What funding streams are currently available to support these activities? What resources are needed to support increased provider participation in these initiatives.
- What data are necessary for health care providers to effectively manage and address their patients' social needs? How can health care providers form partnerships to collect and monitor these data?
- What are other best practices for reducing burden on health care providers related to addressing the non-medical needs of their patients?
- What are the infrastructure needs of CBOs and community collaboratives associated with setting up operational- and data-related processes for coordinating patient care with health care providers? What are their funding needs for other activities that are ongoing or recurring?
- What are best practices for screening for social needs, making referrals, monitoring patient utilization of supportive services, and collecting and sharing related data, including data related to outcomes?

Key Issues for Policymakers

• Determining resource needs for supporting increased participation by health providers and CBOs in initiatives related to addressing SDOH and equity?

Potential Next Steps

- Consider strategies for reducing the administrative burden on health care providers associated with their engagement in SDOH- and equity-related efforts.
- Consider supporting the development of toolkits that identify cost-effective strategies for health care providers to coordinate with CBOs, essential activities that each participating entity can be expected and equipped to implement, and best practices for sharing information across the participating entities.

VII.C. Category 3: Improving Data Collection on SDOH- and Equity-Related Factors

Committee members have identified the following considerations for improving data collection around SDOH- and equity-related factors, including:

- Prioritizing what data to collect and track; and
- Leveraging multiple sources of data to support patient-centered care.

Prioritizing what data to collect and track. Challenges related to standardizing and increasing SDOH data collection include a lack of consensus on the most important indicators to collect data on and monitor, and the assessment tools to use for that data collection. When prioritizing the information to be collected by health care providers and other stakeholders that they partner with, it will be important to identify the data elements that can be readily provided by patients at the point of contact with minimal patient burden; are most likely to provide actionable information, rather than capturing data that are not likely to be used; and can be easily shared among partner organizations and payers.

It is also important to consider the best approach for collecting data by selecting the most appropriate screening tool for uniform use by all participating entities and identifying standardized approaches for collecting and storing data on referrals and follow-ups. Finally, health care providers and their community-based partners need to have the necessary infrastructure and funding to support collecting and sharing data, including having appropriate data security and privacy safeguards in place.

Leveraging multiple sources of data to support patient-centered care. As the momentum toward providing holistic and multidisciplinary patient-centered care grows within the health care system, it will be important to recognize going forward that not all patient-level data have to be sourced from within the health care system, as has been the case traditionally. For example, some state and local health departments have used SDOH-related data, including data

that are reported by race/ethnicity, to predict community risk, identify disparities, and improve care coordination during the COVID-19 public health emergency. Such types of third-party data can be very useful to health care providers and organizations for improving chronic disease management and maximizing patient engagement and satisfaction.

Community partners and EHR vendors can play a role in centralizing the collection of SDOHrelated data, particularly if insurers can address this need through reimbursement. CBOs are in a unique position to collect data related to patients' SDOH and HRSNs, potentially on a more frequent and consistent basis. Additionally, various insurance and EHR companies have created SDOH indices to assess both individual- and population-level factors; these indices have enhanced physicians' understanding of individual patients' social determinants of health while also allowing for more effective population-level risk adjustment.

It is critical to ensure that the various participating entities do not collect data in a siloed fashion. In addition to identifying the most important data to collect and addressing the question of which parties are best suited to collect which data, there needs to be sufficient infrastructure, interoperability, and effective channels for facilitating information-sharing across the health care and related sectors. Given their important roles in facilitating interoperability and third-party data sharing, insurers and EHR companies may be key to centralizing cross-sector data collection, management, and analysis.

PTAC's comments, areas where additional research is needed, issues for policymakers, and next steps regarding improving data collection on SDOH- and equity-related factors are included in Exhibit VII.3.

Exhibit VII.3: PTAC Comments, Areas for Additional Research, and Potential Next Steps

Category 3: Improving Data Collection on SDOH- and Equity-Related Factors

Comment 3A. There is a current lack of consensus on the most important SDOH- and equityrelated indicators to collect data on and monitor, as well as on the assessment tools to use for that data collection. It is important to focus on collecting data that are most relevant and actionable for facilitating patient-centered care. Additional priorities include minimizing patient and provider burden, and standardizing data collection and sharing across multidisciplinary partners and payers.

Comment 3B. There may be opportunities for health care providers to use third-party data from additional sources, such as state and local health departments or CBOs, to improve chronic disease management and maximize patient engagement and satisfaction.

Comment 3C. It will be important to avoid the creation of silos in data collection by incentivizing the development of partnerships, identifying how data collection will be distributed across and used by the participating entities, ensuring interoperability, and

facilitating data sharing. It will also be important to consider the potential for insurers and EHR companies to play a role in centralizing cross-sector data collection.

Areas Where Additional Research Is Needed

- What are the best practices for incentivizing health care providers and their community partners to collect SDOH- and equity-related data? What types of data can potentially be more effectively collected by community partners and other third parties (such as state and local health departments or CBOs)?
- What are some successful models of data sharing that work for health care providers in different environments and settings?
- To what extent are health care providers already collecting data on social needs? How does this vary by context (such as managed care or provider type) or by geographic area?
- What are the most commonly tracked SDOH and HRSNs in patient-centered interventions or health care programs that have been implemented thus far?
- What are the types of SDOH-related indicators that have been found to be most strongly related to health care outcomes? What indicators have been found to be most actionable by health care providers?
- What are the various assessment tools for screening for HRSNs? Are some tools preferred over others or used more commonly?
- When screening for HRSNs, what are the benefits of questions tailored at the community level compared to universal use of a standard screening tool? At what geographic level should a screening tool be selected?
- What are best practices on how to distribute SDOH- and equity-related data collection across multidisciplinary teams that leverages entities' relative strengths and addresses data security and privacy concerns?
- How have third-party data (such as those from state and local health departments or CBOs) been used by health care providers to improve the quality of care provided to patients, and maximize patient satisfaction and engagement?
- What is the degree to which EHRs and insurers capture SDOH-related data? To what extent has there been take-up by providers regarding conducting screenings for HRSNs in EHRs?
- To what extent have SDOH-related data been validated for pay-for-performance and risk adjustment? Which data measures are being used in these contexts?

Key Issues for Policymakers

• Determining which data are most important for SDOH- and equity-related initiatives, and how to incentivize the collection and sharing of that data.

Potential Next Steps

- Consider supporting efforts aimed at reaching consensus on a common set of SDOH- and equity-related indicators that can be universally collected, or collected for specific types of patients.
- Consider supporting efforts aimed at identifying an optimal assessment tool, or set of tools, that can be used on a widespread basis for collecting SDOH- and equity-related data in a standardized way.
- Consider supporting efforts aimed at collecting SDOH- and equity-related data in electronic or claims-based tools for health care providers to support local care coordination and closed loop referrals, including efforts that improve data validity.
- Consider providing resources for health care providers to take part in implementation research to identify and document best practices in SDOH- and equity-related data collection and sharing.

VII.D. Category 4: Measuring the Quality and Effectiveness of Efforts to Address SDOH and Equity

Committee members discussed some opportunities for improving efforts to measure the quality and effectiveness of initiatives to address SDOH and equity, including:

- Prioritizing the most relevant SDOH- and equity-related measures for performance measurement; and
- Adjusting existing measures to account for SDOH and equity.

Prioritizing the most relevant SDOH- and equity-related measures for performance measurement. Performance incentives currently provided under APMs often focus on improving medical health and cost outcomes, without emphasis on addressing patient-specific social needs or reducing disparities. While cost and utilization measures are important, they are insufficient for assessing the full benefits associated with patient-centered multidisciplinary, cross-sector care.

As part of the Committee's Report to the Secretary on *The Role of Care Coordination in Optimizing Health Care Delivery and Value-Based Care Transformation within Alternative Payment Models and Physician-Focused Payment Models*, PTAC discussed the importance of developing appropriate process measures, and identifying the level of performance on these metrics that would be consistent with providing effective patient-centered care coordination. Measures that account for screenings and referrals, and follow-up are particularly important within the context of care coordination and value-based care. These kinds of measures can play an important role in managing care transitions and reducing health care costs. ³² There will be a need for similar performance measures that incentivize coordination across providers who are working to address patients' clinical, behavioral health, and SDOH needs and disincentivize the development of silos.

Going forward, it will be important to include well-designed SDOH- and equity-sensitive measures in pay-for-performance models, to appropriately reward providers who are caring for a disproportionate number of higher-risk patients and providers who are improving outcomes related to addressing patients' social needs. In addition to developing process measures, there is also a potential for developing performance metrics related to addressing patients' social and behavioral health needs such as stabilization of housing, improvement of financial security, improvement of employment, control of mental health conditions and substance abuse, and self-reported substance abuse rates. Not only is consensus needed on the most important SDOH- and equity-related indicators that providers and their partners should collect data on (as noted earlier), but policy decisions will also be needed regarding which of these indicators are most appropriate to include in performance measurement. Given that patient populations can experience a wide range of HRSNs, any measures selected should be flexible, evaluable, and able to yield meaningful information about progress on addressing patients' social needs and reducing disparities. Providing clarity on reporting requirements can also ensure that data collection used for performance measurement is standardized across various cross-sector participants.

Adjusting existing measures to account for SDOH and equity. Given the plethora of measurement tools that currently exist, it may be possible to work toward consensus to identify and adjust the most important SDOH- and equity-focused quality measures from existing tools and instruments, thereby eliminating the need to develop new measures. Since many organizations already collect patient-level data relevant for tracking disparities, it may be desirable to adjust existing measures to account for these issues.

PTAC's comments, areas where additional research is needed, issues for policymakers, and next steps regarding measuring the quality and effectiveness of efforts to address SDOH and equity are included in Exhibit VII.4.

Exhibit VII.4: PTAC Comments, Areas for Additional Research, and Potential Next Steps

Category 4: Measuring the Quality and Effectiveness of Efforts to Address SDOH and Equity

Comment 4A. Currently, APMs generally do not link performance incentives with SDOH- and equity-related efforts. However, in the future, it will be important to include well-designed SDOH- and equity-sensitive measures in pay-for-performance models, to appropriately reward providers caring for higher-risk populations and providers who are improving outcomes related to addressing patients' needs.

Comment 4B. Not only is consensus needed on the most important SDOH- and equity-related indicators that providers and their partners should collect data on, but policy decisions will

also be needed regarding which of these indicators are most appropriate to include in performance measurement, based on their ability to yield meaningful information about progress on addressing patients' social needs and reducing disparities. Potential data may include process measures (such as documenting screenings and referrals) as well as performance metrics (such as stabilization of housing).

Comment 4C. It may not be necessary to develop entirely new performance measures related to addressing SDOH and equity; instead, it may be desirable to work toward consensus to identify and adjust the most important measures across existing tools and instruments to account for these issues.

Areas Where Additional Research Is Needed

- What types of performance metrics are most appropriate for measuring the impact of efforts to address SDOH on individual and population health? Are there any conditions or outcomes that are sensitive to SDOH screening and provision of related resources (such as avoidable emergency department visits)?
- What types of SDOH- and equity-related performance measures are currently being used, and may be relevant to include in payment models? To what extent have these measures been validated?
- To what extent can existing measures be adjusted to account for SDOH and equity? Is there a need for new measures, and if so, in what contexts? What efforts are underway to develop new SDOH- and equity-related performance measures for payment models?
- To what degree are SDOH- and equity-related indicators incorporated into payment models for performance measurement?
- How can achievement of patient and caregiver goals be measured?
- How can SDOH- and equity-related factors be incorporated into health care benchmarking to measure quality improvement?

Key Issues for Policymakers

• What metrics related to SDOH and equity are most appropriate to include in performance measurement, based on their ability to yield meaningful information about progress on addressing patients' social needs and reducing disparities?

Potential Next Steps

- Consider developing definitions and operational requirements for measures of quality and effectiveness related to SDOH and equity.
- Consider supporting efforts to develop performance measures that are SDOH- and equityrelated, either selecting and adjusting measures from existing sets or developing new ones.
- In the context of APMs, consider incorporating patient experience measures into quality and evaluation measures.

• In the context of APMs, consider incorporating process measures related to screening, referrals (preferably closed-loop referrals), monitoring, and equity into quality and evaluation measures.

VII.E. Category 5: Addressing Payment Issues: Role of APMs and PFPMs

APMs can help incentivize changes in the patient care paradigm through the use of prospective payments. Committee members discussed some payment-related considerations for better incentivizing efforts to address SDOH and equity, including:

- Providing adequate financial resources to address patients' HRSNs;
- Targeting funds to maximize effectiveness;
- Achieving diversity in payment models for supporting SDOH- and equity-related efforts;
- Minimizing selective provider participation in models and addressing equity intentionally;
- Adjusting payments for social risk factors; and
- Considering the potential benefits of using a multi-payer approach.

Providing adequate financial resources to address patients' HRSNs. As noted previously, flexible, upfront infrastructure investments are needed to support and incentivize SDOH- and equity-related initiatives such as screening patients for social needs, providing or referring patients to community-based supportive services to address unmet needs, and monitoring patient utilization of such services. However, it will be important to establish criteria for such upfront and flexible funding to ensure that investments are made in a sound way and with some ability to monitor the results. For example, potential criteria could include performance measurement and/or available evidence on evaluations of model effectiveness. Additionally, while it may be desirable to make financial resources available to address "upstream" SDOH and patient needs that can affect patient health, addressing these kinds of issues can go beyond traditional health care spending. In addition to initial investments, it will be important to consider what might constitute a sustainable revenue stream for covering ongoing upstream services (e.g., to provide funding for non-clinical staff). Options include the potential for self-financing by health care providers and practices through cost savings or assessing how dollars should be allocated between traditional health care services and social services.

Targeting funds to maximize effectiveness. Research has shown the effectiveness of health care providers' efforts to screen for unmet social needs and assisting their patients in accessing community-based services. Within this context, it will be important to ensure that funds are targeted in a way that maximizes the effectiveness of efforts to address patients' social needs. For example, as discussed earlier, it will be important to ensure that the various members of a care delivery team do not operate in a siloed fashion in order to avoid duplication of SDOH and equity-related activities and funding. Additionally, it will be important to determine if certain

parts of the care delivery team may be more appropriate for performing certain activities related to addressing patients' social needs. For example, some primary care providers have included screening for patients' social needs as part of their overall screening process. However, some CBOs may also collect data about patients' social needs.

Achieving diversity in payment models for supporting SDOH- and equity-related efforts. There may be limits to what can be accomplished within the context of FFS models regarding designing reimbursement mechanisms to address SDOH and equity. Even within APMs, it is

unlikely that there will be a one-size-fits-all payment model for providing patient-centered care that accounts for addressing medical and non-medical needs. This implies a need to diversify funding to support SDOH- and equity-focused initiatives. For example, an APM could provide for a hybrid approach of care coordination fees coupled with prospective payments.

Another approach could involve uniting multiple funding streams via braiding or blending funds from different sources to achieve greater flexibility not just to finance federal or state SDOHand equity-relevant initiatives but also to improve sustainability of community health improvement efforts. The concept of braiding involves using multiple funding streams to support the total cost of a common goal, but each source keeps track of its "own" funds. Whereas in blending, funds from different sources or agencies are pooled together without needing to be tracked or allocated by specific funds. However, more policy guidance on braiding and blending is needed to clarify the types of activities that may require funds to be braided or blended, and how various sources of funds can be combined.

Minimizing selective provider participation in models and addressing equity intentionally.

While there has been a shift toward value-based care, the corresponding improvements in care delivery have not necessarily translated into progress in addressing health disparities. There are reasons to worry that APMs could perpetuate or worsen existing disparities experienced by marginalized groups. For example, organizations may choose to participate only in select geographic regions, which may be a greater issue in mandatory participation models; even among organizations that do participate, there may be selection of patients based on patients' relative degree of risk. A study examining the Comprehensive Joint Replacement (CJR) model showed that markets with greater social risk factor burden were less likely to be selected to participate. While mandating participation based on factors such as historical volumes is important, efforts to minimize selective participation could include using broader participation criteria, including area-level socioeconomic and other factors.

There are also insufficient data about how APMs impact disparities among their patient populations. Opportunities to advance equity include setting national policy intentions and goals, incorporating equity into APM evaluation, identifying changes needed in measurement and evaluation methods, implementing and evaluating APMs that use these new methods, and convening multi-stakeholder groups for achieving equity goals. Ultimately, it will be important to ensure that APMs include payment incentives that are designed to promote equity.

Adjusting payments for social risk factors. APMs can incorporate risk to align provider incentives with quality and cost outcomes. Despite the growing importance of risk adjustment, however, most current methodologies only account for demographic and clinical risk factors (for example, age and gender or diagnosis codes) without considering other factors that are outside the control of health care providers, such as patients' social needs or disease complexity. It will be important to have discussions around how SDOH and HRSNs can be incorporated into risk adjustment methods. Additionally, it will be important to ensure that smaller practices and safety-net practices are not harmed by underpayments.

Collecting individual-level data for risk adjustment can be challenging for health care providers, especially on sensitive issues that are faced by patient populations, such as food insecurity. Suggestions have been made to use area-level measures in health care payment formulas. For example, social deprivation indices can be used to quantify levels of disadvantage across communities and to adjust provider compensation accordingly. Within Medicare, specifically, a GPCI has been established to account for geographic variations in physician practice costs, and there may be opportunities to expand the GPCI to adjust for SDOH. However, there is a need for caution in using area-level measures for risk adjustment since not all patients who reside in a particular geographic area will exhibit the area-level risk factor. The agreement between area-and individual-level social determinants can be as low as 30 to 40 percent, so it will be important to consider how area- and individual-level factors can be combined within a risk adjustment framework to appropriately reflect patient-level health care needs.

Considering the potential benefits of using a multi-payer approach. Rather than redesigning care for specific patient populations, health care organizations typically redesign care around entire service lines, creating the potential for "spillover effects" that can have a broader effect across payers. For example, studies have shown that innovations related to the Bundled Payments for Care Improvement (BPCI) initiative in Medicare FFS have had a sizable spillover effect on MA patients and other commercially insured patients. Similarly, there is a potential for MA plans' innovative programs related to addressing SDOH to have spillover effects on health care providers' care delivery patterns, leading to market-wide improvements in quality and/or costs, particularly in areas with a higher penetration of MA plans. Therefore, it makes sense to be thinking about FFS alongside MA and other populations when developing APMs and considering how to fund efforts for addressing SDOH and equity. It will also be important to think about how to better engage future Medicare beneficiaries more effectively, including understanding the degree to which individuals know of and choose to participate in initiatives that seek to address SDOH and equity in APMs and MA.

PTAC's comments, areas where additional research is needed, issues for policymakers, and next steps regarding addressing payment issues and the role of APMs and PFPMs are included in Exhibit VII.5.
Exhibit VII.5: PTAC Comments, Areas for Additional Research, and Potential Next Steps

Category 5: Addressing Payment Issues: Role of APMs and PFPMs

Comment 5A. The provision of upfront, flexible, and sustainable funding is needed to support infrastructure investments and the ability to address upstream SDOH and patient needs. However, it will be important to ensure that these investments are made in a sound way based on available evidence on effectiveness of interventions. For example, it will be necessary to determine if funding should be targeted to a subset of providers who are likely to have the most impact. It will also be important to link funding and financial incentives with SDOH- and equity-relevant performance monitoring and outcomes.

Comment 5B. FFS models may be limited in their ability to reimburse SDOH- and equityrelated initiatives. Even within APMs, it may be necessary to diversify funding, for example, via a hybrid approach of care coordination fees coupled with prospective payments.

Comment 5C. More policy guidance on how multiple funding streams can be braided or blended to support SDOH- and equity-related initiatives would potentially improve sustainability of community-level initiatives.

Comment 5D. Selective provider participation in APMs may affect equity in how these models are experienced across communities. Lessons can be learned from prior payment models with mandatory participation, and efforts to minimize selective participation could include using broader participation criteria, including those based on historical volumes, as well as area-level socioeconomic and other factors. It will be desirable to set national goals and to incorporate equity in the evaluation of models.

Comment 5E. It will be important to ensure that smaller practices and safety-net providers are not harmed by underpayments in the context of efforts to address SDOH and equity. Most current risk adjustment methodologies account for only clinical risk factors, and it will be important to have discussions around how SDOH and HRSNs can be incorporated into risk adjustment. However, since individual-level data on sensitive HRSNs may be difficult to collect, it will be important to consider how area-level and individual-level factors can be combined within a risk adjustment framework. For example, it may be desirable to explore whether the GPCI could be expanded to adjust for SDOH.

Comment 5F. It may be worthwhile to consider using a multi-payer approach, when developing and considering how to fund SDOH- and equity-related initiatives. For example, research has shown that health care organizations typically redesign care around entire service lines, rather than for specific patient populations, creating the potential for innovative programs to have spillover effects that can have a broader effect across payers.

Areas Where Additional Research Is Needed

- What types of upfront investments are required for practices in different settings to develop the infrastructure necessary for implementing SDOH- and equity-related initiatives?
- How can APMs be used to reimburse SDOH- and equity-related initiatives in a sustainable and durable way? What types of incentives are required for providers and their partners?
- What types funding streams and reimbursement are available to support various types of SDOH- and equity-related activities, including screening for social needs; making referrals; monitoring patient utilization of supportive services; and collecting and sharing related data among members of the care team, including data related to outcomes?
- How can multiple funding streams be braided or blended to support SDOH- and equityrelated initiatives? What types of activities may benefit from braiding and blending, and what are the various types of funding streams that can be united?
- How can funding most effectively be distributed across health care providers and their community-based partners to address patients' social needs? How can funding mechanisms be designed to incentivize partnership and collaboration across various types of providers, and avoid silos in care delivery and data collection? What measures could be used for allocating funding?
- What are possible ways in which social risk factors can be incorporated into risk adjustment? What methods have been typically used?
- How can current APMs be improved to reduce disparities in access and quality?
- How can future APMs be designed to intentionally embed principles of equity? How should model participating criteria be designed so as to minimize selective provider participation?
- What are some lessons learned from MA plans related to addressing SDOH and/or equity that can be applied to APMs?
- What is the degree to which APMs exert market-wide spillover impacts related to broader care redesign changes? What implications does the potential for spillover effects across payers have on the ability to fully attribute outcome changes to a given payment model, and the expansion or sustainability of that model?
- Which types of entit(ies) could be held accountable for achieving value related to addressing SDOH and/or equity in APMs, such as primary care providers, specialty providers, hospitals, insurers, or accountable delivery organizations?
- Which types of providers or entities are likely to have the most impact related to addressing SDOH and equity issues?

Key Issues for Policymakers

• How should funding for SDOH- and equity-related initiatives be targeted? For example, should all providers receive financial incentives for engaging in SDOH- and equity-related activities, or should resources be targeted to certain types of providers who are likely to

have the most impact based on available evidence regarding effectiveness of interventions?

Potential Next Steps

- In the context of APMs, consider developing more models that align practices' financial incentives with SDOH- and equity-related goals.
- Consider exploring options for using area-wide indices to adjust payments for social risk factors.
- Consider testing a variety of payment model or funding structures that differ based on the distribution or allocation of funding across various types of health care providers and their community-based partners.
- Consider using a multi-payer approach involving Medicare FFS, MA, Medicaid, and commercial payers to develop and test strategies for addressing SDOH and equity that are relevant to all populations and for those patients with specific health conditions.

VIII. CONCLUSIONS

This report highlights key comments stemming from PTAC's assessment and public deliberation on the topic of the role that efforts to address SDOH and equity can play in optimizing health care delivery and value-based care transformation; and how efforts to address SDOH and equity can be further optimized in the context of APMs and PFPMs. Addressing SDOH and equity is fundamental to achieving optimal patient-centered care for Medicare beneficiaries. However, as demonstrated by PTAC's comments and the analysis provided in this report, the ideal model for addressing the HRSNs and inequities experienced by a given patient varies based on sociocultural and geographic context, care setting, and clinical focus. It is essential to ensure that all care providers, both medical and non-medical, understand the breadth of SDOH and manifestations of health-related inequities and how these factors impact health outcomes at the individual and community level.

Although approaches for addressing SDOH and advancing equity should remain flexible and informed by the needs of a given beneficiary or community, certain elements are essential for all payment models. First, APMs should take a holistic approach to health and health care that considers medical and non-medical factors influencing patient- and population-level health outcomes. Second, models should seek to strike a balance between accountability and burden for health care providers while supporting CBOs' ability to take on more responsibility for addressing SDOH and equity needs. Third, payment models should prioritize the collection of standardized, actionable data while ensuring that the assortment of entities working to gather, analyze, and operationalize SDOH- and equity-related data do not operate in silos. Fourth, policymakers should identify performance measures that can distill model benefits and outcomes with respect to SDOH and equitable access to care. Finally, it is important for

payment models to include payment structures that provide sufficient financial resources to address SDOH and equity both in terms of upfront investments that providers and their partners may need, and in terms of resources for ongoing activities.

Many exemplary successful models of addressing SDOH and advancing equity have been implemented across the U.S., with lessons learned that can be informative to current practices and new models being developed by CMS and other payers. Sharing insights from these areas of excellence can help to disseminate best practices. Findings from ongoing evaluations of models that incorporate elements related to addressing SDOH and equity can also be disseminated in a timelier manner to ensure that patient-centered care delivery efforts are applying the latest evidence. New and ongoing evaluations can focus on the value of addressing SDOH and equity beyond the typical metrics of utilization and cost impacts.

PTAC would be pleased to work with the Secretary to determine ways in which the information contained in this report might be used to ensure that efforts to address SDOH and equity will work to the advantage of the Medicare program and its beneficiaries. In particular, PTAC can draw on its experience and that of its stakeholders, including review of future proposals, to help to inform the incorporation of SDOH- and equity-related efforts within APMs and PFPMs.

APPENDIX 1. COMMITTEE MEMBERS AND TERMS

Paul Casale, MD, MPH, Chair Lauran Hardin, MSN, FAAN, Vice Chair

Term Expired October 2021

Jeffrey Bailet, MD *Altais* San Francisco, CA

Term Expires October 2022

Paul N. Casale, MD, MPH^v *NewYork-Presbyterian, Weill Cornell Medicine and Columbia University* New York, NY

Term Expires October 2023

Jay S. Feldstein, DO Philadelphia College of Osteopathic Medicine Philadelphia, PA

Lauran Hardin, MSN, FAAN^v

National Center for Complex Health and Social Needs, Camden Coalition of Healthcare Providers Camden, NJ

Term Expires October 2024

Angelo Sinopoli, MD Independent Consultant Greenville, SC Kavita K. Patel, MD, MSHS The Brookings Institution Washington, DC

Bruce Steinwald, MBA Independent Consultant Washington, DC

Joshua M. Liao, MD, MSc

University of Washington School of Medicine Seattle, WA **Terry L. Mills Jr.,** MD, MMM *CommunityCare* Tulsa, OK

Jennifer L. Wiler, MD, MBA UCHealth and University of Colorado School of Medicine Aurora, CO

^v Paul Casale, MD, MPH; and Lauran Hardin, MSN, FAAN were not in attendance at the September 27, 2021, public meeting.

APPENDIX 2. CHARACTERISTICS OF SELECTED PTAC PROPOSALS IDENTIFIED AS BEING RELEVANT TO SDOH AND EQUITY, DECEMBER 2016 – SEPTEMBER 2020

Submitter and Proposal	Clinical Focus, Setting, and Payment Mechanism	SDOH, Equity, and Behavioral Health Model Objectives and Requirements	AHRQ SDOH Key Areas Being Addressed	Targeted Social, Behavioral Health, and Physical Wellness Needs	SDOH-Related Functions
American Academy of Family Physicians (AAFP) Advanced Primary Care: A Foundational Alternative Payment Model (APC-APM) for Delivering Patient- Centered, Longitudinal, and Coordinated Care	 Clinical Focus: Primary care Setting: Primary care practices Payment Mechanism: Prospective, risk-adjusted primary care global payment for direct patient care Fee-for-service (FFS) for services not covered under global fee Prospective, population-based payment Performance-based incentive holding physicians accountable for quality and cost 	The proposed model attempts to address HRSNs to support beneficiaries' ability to achieve optimal well-being, and providers are required to make referrals to social services.	 Health care context Social context 	Social Needs: Not specified Behavioral Health Needs: Not specified Physical Wellness Needs: General lifestyle choices (not specified further)	 Screening for HRSNs Providing referrals to address HRSNs Monitoring progress and following up on identified HRSNs Engaging in SDOH- based performance measurement Supporting and sharing information on factors that contribute to health and success of treatment Improving integration of health care and social services and supports

Submitter and Proposal	Clinical Focus, Setting, and Payment Mechanism	SDOH, Equity, and Behavioral Health Model Objectives and Requirements	AHRQ SDOH Key Areas Being Addressed	Targeted Social, Behavioral Health, and Physical Wellness Needs	SDOH-Related Functions
American College of Physicians-National Committee for Quality Assurance (ACP-NCQA) <u>The "Medical</u> <u>Neighborhood" Advanced</u> <u>Alternative Payment Model</u> (AAPM) (Revised Version)	 Clinical Focus: Primary and specialty care integration Setting: Primary care and specialty practices Payment Mechanism: Two-track (Track 1: continued fee-for-service reimbursement; Track 2: Reduced FFS of 75 percent in exchange for quarterly prospective payments based on projected spending) Monthly care management fee per attributed patient Potential performance-based adjustment based on spending relative to financial benchmark, adjusted for quality and utilization performance 	Submitters note that the proposed risk stratification methodology is meant to prevent adverse selection of patients, ensuring equity of access. The proposed model also mandates adherence to Patient-Centered Specialty Practice (PCSP) criteria.	 Health care context Social context 	Social Needs: Not specified Behavioral Health Needs: Not specified Physical Wellness Needs: • Diet • Physical activity • Obesity prevention/weight management	 Screening for HRSNs Providing referrals to address HRSNs Monitoring progress and following up on identified HRSNs Improving integration of health care and social services and supports

Submitter and Proposal	Clinical Focus, Setting, and Payment Mechanism	SDOH, Equity, and Behavioral Health Model Objectives and Requirements	AHRQ SDOH Key Areas Being Addressed	Targeted Social, Behavioral Health, and Physical Wellness Needs	SDOH-Related Functions
American Society of Clinical Oncology (ASCO) Patient-Centered Oncology Payment (PCOP) Model	 Clinical Focus: Oncology Setting: Oncology specialty practices Payment Mechanism: Two-track Monthly care management payments Performance incentive payments Adjusted FFS reimbursement 	Risk stratification takes into account health-related social needs.	 Health care context Social context 	Social Needs: Not specified Behavioral Health Needs: Psychosocial needs Physical Wellness Needs: Diet	 Screening for HRSNs Providing referrals to address HRSNs Monitoring progress and following up on identified HRSNs Improving integration of health care and social services and supports
Coalition to Transform Advanced Care (C-TAC) Advanced Care Model (ACM) Service Delivery and Advanced Alternative Payment Model	 Clinical Focus: Advanced illness Setting: All sites of care during treatment for advanced illness, including the home Payment Mechanism: Wage-adjusted PBPM payment of indefinite duration Downside risk for total cost of care and upside risk/bonus for quality performance 	The proposed model intended to apply to broad range of advanced illness beneficiaries, regardless of condition or socioeconomic background.	 Health care context Social context 	Social Needs: Not specified Behavioral Health Needs: Not specified Physical Wellness Needs: Diet	 Screening for HRSNs* Providing referrals to address HRSNs Monitoring progress and following up on identified HRSNs Using interdisciplinary teams to address HRSNs Improving integration of health care and social services and supports

Submitter and Proposal	Clinical Focus, Setting, and Payment Mechanism	SDOH, Equity, and Behavioral Health Model Objectives and Requirements	AHRQ SDOH Key Areas Being Addressed	Targeted Social, Behavioral Health, and Physical Wellness Needs	SDOH-Related Functions
Jean Antonucci, MD (Antonucci) <u>An Innovative Model for</u> <u>Primary Care Office</u> <u>Payment</u>	 Clinical Focus: Primary care Setting: Primary care practices Payment Mechanism: Monthly capitation payments (with risk adjustment) Performance-based payments 	SDOH metrics incorporated into risk adjustment, promoting access.	 Health care context Social context 	Social Needs: Financial strain Behavioral Health Needs: • Mental health (stress) • Psychosocial conditions • Interpersonal safety (exposure to domestic and community violence) • Network of social and emotional support Physical Wellness Needs: • Diet • Physical activity	 Screening for HRSNs Monitoring progress and following up on identified HRSNs Engaging in SDOH- based performance measurement Providing a patient- centered care experience

Submitter and Proposal	Clinical Focus, Setting, and Payment Mechanism	SDOH, Equity, and Behavioral Health Model Objectives and Requirements	AHRQ SDOH Key Areas Being Addressed	Targeted Social, Behavioral Health, and Physical Wellness Needs	SDOH-Related Functions
Johns Hopkins School of Nursing and the Stanford Clinical Excellence Research Center (Hopkins/Stanford) <u>CAPABLE Provider Focused</u> <u>Payment Model</u>	Clinical Focus: Home health, functional care for elders Setting: Home Payment Mechanism: • Partial bundled payment • Bonus for meeting quality metrics and eventually moving toward a fully capitated model (recommended among other proposed payment mechanisms)	The proposed model addresses patient functional needs in the home and includes principles defined as "connect cultures" and "assess the environment" in facilitating functional care that meets patient functional needs. It emphasizes cultural competency in health care, integrating functional care to increase quality of life for older adults, regardless of functional limitation.	 Health care context Physical infrastructure Social context 	Social Needs: Not specified Behavioral Health Needs: Not specified Physical Wellness Needs: Not specified	 Screening for HRSNs* Providing referrals to address HRSNs Monitoring progress and following up on identified HRSNs Using interdisciplinary teams to address HRSNs Improving integration of health care and social services and supports Providing a patient- centered-care experience

Submitter and Proposal	Clinical Focus, Setting, and Payment Mechanism	SDOH, Equity, and Behavioral Health Model Objectives and Requirements	AHRQ SDOH Key Areas Being Addressed	Targeted Social, Behavioral Health, and Physical Wellness Needs	SDOH-Related Functions
Large Urology Group Practice Association (LUGPA) LUGPA Advanced Payment Model for Initial Therapy of Newly Diagnosed Patients with Organ-Confined Prostate Cancer	 Clinical Focus: Urology/oncology (treatment of prostate cancer) Setting: Large and small urology and multispecialty practice Payment Mechanism: Monthly care management fee (\$75 per beneficiary for initial and subsequent 12-month episodes) Performance-based payment for enhancing utilization of active surveillance 	The proposed model intends to facilitate adoption of Active Surveillance (AS) in a more equitable context, aiming to reduce disparity in AS utilization based on socioeconomic status.	 Health care context Social context 	Social Needs: Not specified Behavioral Health Needs: Not specified Physical Wellness Needs: Not specified	 Screening for HRSNs* Providing referrals to address HRSNs Monitoring progress and following up on identified HRSNs Improving integration of health care and social services and supports
New York City Department of Health and Mental Hygiene (NYC DOHMH) <u>Multi-provider, bundled</u> episode of care payment model for treatment of chronic hepatitis C virus (HCV) using care coordination by employed physicians in hospital outpatient clinics	 Clinical Focus: Multispecialty, hepatitis C infection management Setting: Hospital-based outpatient clinics Payment Mechanism: Outpatient bundled payment Opportunity for shared savings 	The proposed model attempts to address HRSNs to support beneficiaries' ability to achieve optimal well-being with a care coordinator providing referrals for psychosocial needs.	 Health care context Social context 	Social Needs: Not specified Behavioral Health Needs: Psychosocial needs Physical Wellness Needs: Not specified	 Screening for HRSNs Providing referrals to address HRSNs Monitoring progress and following up on identified HRSNs Using interdisciplinary teams to address HRSNs Improving integration of health care and social services and supports

Submitter and Proposal	Clinical Focus, Setting, and Payment Mechanism	SDOH, Equity, and Behavioral Health Model Objectives and Requirements	AHRQ SDOH Key Areas Being Addressed	Targeted Social, Behavioral Health, and Physical Wellness Needs	SDOH-Related Functions
Personalized Recovery Care (PRC) <u>Home Hospitalization: An</u> <u>Alternative</u> <u>Payment Model for</u> <u>Delivering Acute Care in</u> <u>the Home</u>	 Clinical Focus: Internal medicine, cardiology, pulmonology, nephrology/urology, rheumatology, and orthopedics Setting: Home Payment Mechanism: Retrospective bundled payment, enabling episodes to be triggered by a non-facility claim Risk payment determined in comparison to targeted cost of care Per-episode payment for care in lieu of acute care hospitalization 	The proposed model attempts to address HRSNs to support beneficiaries' ability to achieve optimal well-being by using multidisciplinary care teams that include social workers and integrating social services and health care.	 Health care context Social context 	Social Needs: Not specified Behavioral Health Needs: Not specified Physical Wellness Needs: Not specified	 Screening for HRSNs Providing referrals to address HRSNs Monitoring progress and following up on identified HRSNs Using interdisciplinary teams to address HRSNs Improving integration of health care and social services and supports

* There was no explicit mention of screening in the proposal, but it was assumed that providers were screening for unmet needs given the mention of referrals and monitoring processes.

In addition to the above nine proposed PFPMs that were found to include substantial information related to SDOH and equity, four other proposed PFPMs did not explicitly focus on SDOH but addressed equity in some way:

- The Oncology Bundled Payment Program Using CNA-Guided Care, submitted by the American Society of Clinical Oncology, notes that the proposed model should be made available to all potential participants regardless of demographic, clinical, or geographic factors.
- The *Hospital at Home Plus Provider-Focused Payment Model*, submitted by the Icahn School of Medicine at Mount Sinai, specifically targets underserved patient populations, aims to provide culturally and ethnically sensitive health care, and strives to produce materials in multiple languages to promote inclusivity.
- Two other PTAC proposals, Annual Wellness Visit Billing at Rural Health Clinics^{vi} and ACCESS Telemedicine: An Alternative Healthcare Delivery Model for Rural Cerebral Emergencies, submitted by Mercy Accountable Care Organization and University of New Mexico Health Sciences Center (respectively), focus on rural settings where problems of health care access are more severe.

^{vi} This proposal was determined as being not applicable to the Secretary's proposal evaluation criteria.

APPENDIX 3. ADDITIONAL RESOURCES RELATED TO PTAC'S THEME-BASED DISCUSSION ON OPTIMIZING SDOH AND EQUITY IN APMs AND PFPMs

The following is a summary of additional resources related to PTAC's theme-based discussion on optimizing SDOH and equity in APMs and PFPMs. These resources are publicly available on the ASPE PTAC website at these links:

Environmental Scans and Reports

Social Determinants of Health and Equity Overview Document Social Determinants of Health and Equity Proposal and CMMI Model Analysis Social Determinants of Health and Equity Background Supplement (Forthcoming)

Request for Input (RFI)

Request for Input on PTAC's Review of Social Determinants of Health and Equity, and PFPMs

Topics included in the RFI:

- Relevant SDOH- and equity-related data
- Collecting and sharing data across multi-sectoral partners
- Potential unintended consequences
- Necessary investments and resources for different partners
- Relevant performance measures
- Incentives via APMs for addressing SDOH and advancing equity
- Unanswered questions

Public Input on PTAC's Review of Social Determinants of Health and Equity and PFPMs

Respondents as of November 15, 2021 (listed in the order in which their responses were received):

- American Academy of Family Physicians
- American Academy of Neurology
- National Association of ACOs
- American Nurses Association
- Ascension (faith-based nonprofit health system)
- Partnership to Empower Physician-Led Care
- Aunt Bertha, a Public Benefit Corporation
- 211 San Diego (steward for San Diego's Community Information Exchange)
- Pharmaceutical Research and Manufacturers of America

Materials from the Public Meeting on September 27, 2021

Presentation: An Overview of Social Determinants of Health and Equity in Proposals Submitted to the Physician-Focused Payment Model Technical Advisory Committee (PTAC) and Other Highlights from the Social Determinants of Health and Equity Scan Presentation: PTAC Member Listening Session

Presentations: Subject Matter Experts Listening Session

Panelist Biographies

Panelist Questions

Other Information Related to the Public Meeting on September 27, 2021

Public Meeting Minutes (to be posted with <u>PTAC's meeting materials)</u>

Public Meeting Transcript (to be posted with <u>PTAC's meeting materials)</u>

APPENDIX 4. SUMMARY OF PTAC COMMENTS ON OPTIMIZING SDOH AND EQUITY IN THE CONTEXT OF APMS AND PFPMS

The Committee's comments have been summarized in the following broad topic areas:

- Category 1: Optimizing Patient-Centered Care Delivery;
- Category 2: Balancing Provider Accountability with Burden;
- Category 3: Improving Data Collection on SDOH- and Equity-Related Factors;
- Category 4: Measuring the Quality and Effectiveness of Efforts to Address SDOH and Equity; and
- Category 5: Addressing Payment Issues: Role of APMs and PFPMs.

Cate	gory 1: Optimizing Patient-Centered Care Delivery
1A	There is increasing recognition of the importance of taking a holistic view of health care that includes addressing individual- and community-level non-medical factors that can have an impact on patients' health. However, there is a need to incorporate social determinants into the medical lexicon, so that efforts to address these issues will no longer be perceived as being outside of the scope of standard medical care.
1B	Studies have shown that efforts to address patients' HRSNs can reduce hospitalizations and ED visits, as well as overall health care costs.
1C	Multidisciplinary teams are central for addressing the association between non-medical factors and health outcomes. However, there is a need to acknowledge the importance of coordination among traditional and non-traditional care team members and provide adequate reimbursement for the full range of patient-centered activities.
1D	While there has been significant progress toward identifying factors that can contribute to health disparities, additional focus is needed on issues related to ageism and hearing-impaired patients.
1E	There is a need to begin quantifying the financial burden experienced by caregivers of various types of patients with SDOH-related needs and to identify options for assisting caregivers in providing care.
Cata	gory 2: Balancing Provider Accountability with Burden

Cale	gory z. balancing provider Accountability with burden
2A	Providers need reliable funding to support their increased participation in initiatives related to addressing SDOH and equity, including data collection and care coordination. Providers also need the right infrastructure, and appropriately trained and compensated staff. Additionally, there is a need to reduce the administrative burden associated with collecting these types of
	data, and coordinating care between health and social services providers.
2B	It is unrealistic to expect health care providers to bear all of the responsibility for ensuring that screening for non-medical needs, necessary referrals, and follow-up occur.

2C One way to reduce provider burden associated with implementing SDOH- and equity-related interventions could involve encouraging greater involvement of CBOs, with both service delivery and the associated data collection. This may also be beneficial given their familiarity with networks within their communities. However, payment sustainability and durability will affect CBOs' ability to work with health care providers in coordinating care for patients.

Category 3: Improving Data Collection on SDOH- and Equity-Related Factors

- 3A There is a current lack of consensus on the most important SDOH- and equity-related indicators to collect data on and monitor, as well as on the assessment tools to use for that data collection. It is important to focus on collecting data that are most relevant and actionable for facilitating patient-centered care. Additional priorities include minimizing patient and provider burden, and standardizing data collection and sharing across multidisciplinary partners and payers.
- 3B There may be opportunities for health care providers to use third-party data from additional sources, such as state and local health departments or CBOs, to improve chronic disease management and maximize patient engagement and satisfaction.
- 3C It will be important to avoid the creation of silos in data collection by incentivizing the development of partnerships, identifying how data collection will be distributed across and used by the participating entities, ensuring interoperability, and facilitating data sharing. It will also be important to consider the potential for insurers and EHR companies to play a role in centralizing cross-sector data collection.

Cate	gory 4: Measuring the Quality and Effectiveness of Efforts to Address SDOH and Equity
4A	Currently, APMs generally do not link performance incentives with SDOH- and equity-related efforts. However, in the future, it will be important to include well-designed SDOH- and equity-sensitive measures in pay-for-performance models, to appropriately reward providers caring for higher-risk populations and providers who are improving outcomes related to addressing patients' needs.
4B	Not only is consensus needed on the most important SDOH- and equity-related indicators that providers and their partners should collect data on, but policy decisions will also be needed regarding which of these indicators are most appropriate to include in performance measurement, based on their ability to yield meaningful information about progress on addressing patients' social needs and reducing disparities. Potential data may include process measures (documenting screenings and referrals) as well as performance metrics (such as stabilization of housing).
4C	It may not be necessary to develop entirely new performance measures related to addressing SDOH and equity; instead, it may be desirable to work toward consensus to identify and adjust the most important measures across existing tools and instruments to account for these issues.

Cate	gory 5: Addressing Payment Issues: Role of APMs and PFPMs
5A	The provision of upfront, flexible, and sustainable funding is needed to support infrastructure investments and the ability to address upstream SDOH and patient needs. However, it will be important to ensure that these investments are made in a sound way based on available evidence on effectiveness of interventions. For example, it will be necessary to determine if funding should be targeted to a subset of providers who are likely to have the most impact. It will also be important to link funding and financial incentives with SDOH- and equity-relevant performance monitoring and outcomes.
5B	FFS models may be limited in their ability to reimburse SDOH- and equity-related initiatives. Even within APMs, it may be necessary to diversify funding, for example, via a hybrid approach of care coordination fees coupled with prospective payments.
5C	More policy guidance on how multiple funding streams can be braided or blended to support SDOH- and equity-related initiatives would potentially improve sustainability of community-level initiatives.
5D	Selective provider participation in APMs may affect equity in how these models are experienced across communities. Lessons can be learned from prior payment models with mandatory participation, and efforts to minimize selective participation could include using broader participation criteria, including those based on historical volumes, as well as area-level socioeconomic and other factors. It will be desirable to set national goals and to incorporate equity in the evaluation of models.
5E	It will be important to ensure that smaller practices and safety-net providers are not harmed by underpayments in the context of efforts to address SDOH and equity. Most current risk adjustment methodologies account for only clinical risk factors, and it will be important to have discussions around how SDOH and HRSNs can be incorporated into risk adjustment. However, since individual-level data on sensitive HRSNs may be difficult to collect, it will be important to consider how area-level and individual-level factors can be combined within a risk adjustment framework. For example, it may be desirable to explore whether the GPCI could be expanded to adjust for SDOH.
5F	It may be worthwhile to consider using a multi-payer approach, when developing and considering how to fund SDOH- and equity-related initiatives. For example, research has shown that health care organizations typically redesign care around entire service lines, rather than for specific patient populations, creating the potential for innovative programs to have spillover effects that can have a broader effect across payers.

¹ Agency for Healthcare Research and Quality. Social Determinants of Health. Published January 2020. Accessed July 15, 2021, from <u>https://www.ahrg.gov/sdoh/about.html</u>

² Billioux A, Verlander K, Anthony S, Alley D. Standardized Screening for Health-Related Social Needs in Clinical Settings: The Accountable Health Communities Screening Tool. *NAM.edu/Perspectives*. 2017. Accessed July 19, 2021. <u>https://nam.edu/wp-content/uploads/2017/05/Standardized-Screening-for-Health-Related-Social-Needs-in-</u> <u>Clinical-Settings.pdf</u>

³ Centers for Disease Control and Prevention. Social Determinants of Health. Last updated 2021. Accessed August 31, 2021. <u>https://www.cdc.gov/socialdeterminants/about.html</u>

⁴ Healthy People 2020. Secretary's Advisory Committee on Health Promotion and Disease Prevention Objectives for 2020. Published 2014. Accessed August 31, 2021.

⁵ Martino SC, Sargeeta A, Harrison J, Kim A, & Elliot MN. *Developing Health Equity Measures*. RAND. 2021. Accessed July 19, 2021. https://aspe.hhs.gov/sites/default/files/private/pdf/265566/developing-health-equity-measures.pdf

⁶ Cantu PA, Hayward MD, Hummer RA, Chiu CT. New Estimates of Racial/Ethnic Differences in Life Expectancy with Chronic Morbidity and Functional Loss: Evidence from the National Health Interview Survey. *Journal of Cross-Cultural Gerontology*. 2013;28(3):283-297. doi:10.1007/s10823-013-9206-5 <u>https://doi.org/10.1007/s10823-013-9206-5</u>

⁷ Agency for Healthcare Research and Quality. What is Integrated Behavioral Health? Accessed July 15, 2021. <u>https://integrationacademy.ahrq.gov/about/integrated-behavioral-health</u>

⁸ Hussein T, Collins M. The Community Cure for Health Care. Standford Social Innovation Review. 2016. <u>https://ssir.org/articles/entry/the_community_cure_for_health_care</u>

⁹ Booske BC, Athens JK, Kindig DA, Park H, Remington PL. County Health Rankings Working Paper: Different Perspective for Assigning Weights to Determinants of Health. University of Wisconsin Population Health Institute. 2010.

https://www.countyhealthrankings.org/sites/default/files/differentPerspectivesForAssigningWe ightsToDeterminantsOfHealth.pdf

¹⁰ Physician Focused Payment Model Technical Advisory Committee (PTAC). *Report to the Secretary of Health and Human Services: The Role of Care Coordination in Optimizing Health Care Delivery and Value-Based Care Transformation within Alternative Payment Models and Physician-Focused Payment Models.* September 22, 2021. https://aspe.hhs.gov/sites/default/files/documents/977f6749b962680aee430b8da1f2eac2/RTSCareCoordination. pdf

¹¹ Lie DA, Lee-Rey E, Gomez A, Bereknyei S, Braddock CH. Does Cultural Comptency Training of Health Professionals Improve Patient Outcomes? A Systematic Review and Propose Algorithm for Future Research. *Journal of General Internal Medicine*. 2011;26(3):317–325. <u>https://doi.org/10.1007/s11606-010-1529-0</u>

¹² Tristão Parra M, Porfírio G, Arredondo EM, Atallah ÁN. Physical Activity Interventions in Faith-Based Organizations: A Systematic Review. *American Journal of Health Promotion*. 2018;32(3):677–690. https://doi.org/10.1177/0890117116688107

¹³ Williams MV, Perez L, Siddiqi S, Qureshi N, Sousa J, Huntington A. *Building the Evidence Base for Social Determinants of Health Interventions*. 2021. Manuscript in preparation. *This research was funded by the U.S.*

Department of Health and Human Services Office of the Assistant Secretary for Planning and Evaluation under Contract Number HHSP233201500038I and carried out by RAND Health Care.

¹⁴ Mohan G, Chattopadhyay S. Cost-effectiveness of Leveraging Social Determinants of Health to Improve Breast, Cervical, and Colorectal Cancer Screening: A Systematic Review. *JAMA Oncology*. 2020. <u>https://doi.org/10.1001/jamaoncol.2020.1460</u>

¹⁵ Aidala AA, Wilson MG, Shubert V, Gogolishvili D, Globerman J, Rueda S, Bozack AK, Caban M, Rourke SB. Housing Status, Medical Care, and Health Outcomes Among People Living With HIV/AIDS: A Systematic Review. *American Journal of Public Health*. 2016;106(1):e1–e23. <u>https://doi.org/10.2105/AJPH.2015.302905</u>

¹⁶ Slopen N, Fenelon A, Newman S, Boudreaux M. Housing Assistance and Child Health: A Systematic Review. *Pediatrics*. 2018;141(6). <u>https://doi.org/10.1542/peds.2017-2742</u>

¹⁷ McElfish PA, Purvis RS, Esquivel MK, Sinclair KA, Townsend C, Hawley NL, Haggard-Duff LK, Kaholokula JK. Diabetes Disparities and Promising Interventions to Address Diabetes in Native Hawaiian and Pacific Islander Populations. *Current Diabetes Reports*. 2019;19(5). <u>https://doi.org/10.1007/s11892-019-1138-1</u>

¹⁸ Rivera RL, Maulding MK, Eicher-Miller HA. Effect of Supplemental Nutrition Assistance Program-Education (SNAP-Ed) on food security and dietary outcomes. *Nutrition Reviews*. 2019;77(12):903–921. <u>https://doi.org/10.1093/nutrit/nuz013</u>

¹⁹ Spencer RA, Komro KA. Family Economic Security Policies and Child and Family Health. *Clinical Child and Family Psychology Review*. 2017;20(1):45–63. <u>https://doi.org/10.1007/s10567-017-0225-6</u>

²⁰ Silverman K, Holtyn AF, Subramaniam S. Behavior analysts in the war on poverty: Developing an operant antipoverty program. *Experimental and Clinical Psychopharmacology*. 2018;26(6):515–524. <u>https://doi.org/10.1037/pha0000230</u>

²¹ Pega F, Carter K, Blakely T, Lucas PJ. In-work tax credits for families and their impact on health status in adults. *Cochrane Database of Systematic Reviews*. 2013;2013(8). <u>https://doi.org/10.1002/14651858.CD009963.pub2</u>

²² Crook HL, Zheng J, Blesser WK, Whitakers RG, Mosand J, Saunders RS. How Are Payment Reforms Addressing Social Determinants of Health? Policy Implications and Next Steps. Milbank Memorial Fund. 2021. Accessed July 19, 2021. <u>https://www.milbank.org/wp-content/uploads/2021/02/Duke-SDOH-and-VBP-Issue-Brief_v3-1.pdf</u>

²³ State Health Access Data Assistance Center. *Risk Adjustment Based on Social Factors: State Approaches to Filling Data Gaps*. University of Minnesota State Health Access Data Assistance Center. 2020. <u>https://www.shvs.org/wp-content/uploads/2020/08/FINAL_SHVS-Risk-Adjustment-Brief.pdf</u>

²⁴ Bensken, WP, Alberti, PM, Koroukian, SM. Health-Related Social Needs and Increased Readmission Rates: Findings from the Nationwide Readmissions Database. *Journal of General Internal Medicine*. 2021;36:1173–1180. https://doi.org/10.1007/s11606-021-06646-3

²⁵ Kornfield T, Kazan M, Frieder M, Duddy-Tenbrunsel R, Donthi S, Fix A. Medicare Advantage Plans Offering Expanded Supplemental Benefits: A Look at Availability and Enrollment. *The Commonwealth Fund*. 2021. <u>https://www.commonwealthfund.org/publications/issue-briefs/2021/feb/medicare-advantage-plans-</u> <u>supplemental-benefits</u>

²⁶ Newman N, Ferguson M, Dutton MJ, Mann C. In Pursuit of Whole Person Health: Leveraging Medicaid Managed Care & 1115 Waivers to Address SDOH. Manatt. October 28, 2020. Accessed July 22, 2021.

https://www.manatt.com/insights/newsletters/manatt-on-health-medicaid-edition/in-pursuit-of-whole-person-health-leveraging-medic

²⁷ SDOH Provider Communication Commercial. Aetna Inc. 2020. Accessed November 5, 2021. <u>https://www.aetna.com/content/dam/aetna/pdfs/aetnacom/health-care-professionals/sdoh-provider-communication-commercial.pdf</u>

²⁸ Inserro A. Examining SDOH in a Commercially Insured Health Care Workforce. *AJMC.* 2021. <u>https://www.ajmc.com/view/examining-sdoh-in-a-commercially-insured-health-care-workforce</u>

²⁹ Pooler JA, Srinivasan M. Association Between Supplemental Nutrition Assistance Program Participation and Cost-Related Medication Nonadherence Among Older Adults With Diabetes. *JAMA Internal Medicine*. 2019;179(1):63– 70. <u>https://doi.org/10.1001/jamainternmed.2018.5011</u>

³⁰ Samuel LJ, Szanton SL, Cahill R, Wolff JL, Ong P, Zielinskie G, Betley C. Does the Supplemental Nutrition Assistance Program Affect Hospital Utilization Among Older Adults? The Case of Maryland. *Population Health Management*. 2018;21(2):88–95. <u>https://doi.org/10.1089/pop.2017.0055</u> ³¹ Thomas KS, Dosa D. Results from a Pilot Randomized Control Trial of Home-Delivered Meal Programs. Meals on Wheels America. 2015. Accessed August 25, 2021. <u>https://www.mealsonwheelsamerica.org/docs/default-source/News-Assets/mtam-full-report---march-2-2015.pdf?sfvrsn=6</u>

³² Physician Focused Payment Model Technical Advisory Committee (PTAC). *Report to the Secretary of Health and Human Services: The Role of Care Coordination in Optimizing Health Care Delivery and Value-Based Care Transformation within Alternative Payment Models and Physician-Focused Payment Models*. September 22, 2021. https://aspe.hhs.gov/sites/default/files/documents/977f6749b962680aee430b8da1f2eac2/RTSCareCoordination.pdf