# Accounting for Social Risk Factors in Medicare Payment
## Dissemination Meeting

On June 13, 2017, the Board on Population Health and Public Health Practice and the Board on Health Care Services of the National Academies of Sciences, Engineering, and Medicine's Health and Medicine Division held a 1-day event titled "Dissemination Meeting on the Report Series *Accounting for Social Risk Factors in Medicare Payment*." The goals of this meeting were to discuss the implications for providers, policy makers, and patients/enrollees of addressing social risk factors in Medicare payment programs; examine the strengths and limitations of data on social risk factors and the methods for applying them to Medicare payment; and to hear about existing and planned research on this topic by the U.S. Department of Health and Human Services Office of the Assistant Secretary for Planning and Evaluation (ASPE) and others. Participants included members of the Committee on Accounting for Socioeconomic Status in Medicare Payment Programs, which authored the five reports in the series,[1] representatives from ASPE (the sponsor of the report series), and relevant stakeholders. The meeting featured a brief presentation on the report series and presentations on two related ASPE studies. It also included four panel discussions, each of which was moderated by a committee member and featured presentations from four panelists. The presentations were followed by in-depth discussions among presenters and audience members. The meeting sessions were:

- Overview of the *Accounting for Social Risk Factors in Medicare Payment* report series,
- ASPE Improving Medicare Post-Acute Care Transformation (IMPACT) Act Study A overview,
- Measuring and reporting social risk factors,
- Measuring and reporting health equity,
- Approaches for incorporating social risk measures into Medicare value-based payment policy,
- Strategies for supporting better outcomes for beneficiaries with social risk factors, and
- ASPE IMPACT Act Study B overview.

This document presents highlights from the presentations and key points made during the discussions that followed. It should not be seen as conclusions or recommendations from the meeting. Statements, recommendations, and opinions expressed are those of individual presenters and participants and are not necessarily endorsed or verified by the National Academies of Sciences, Engineering, and Medicine, nor should they be construed as reflecting any group consensus.

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[1] More information about the report series can be found at nationalacademies.org/MedicareSocialRiskFactors (accessed July 19, 2017).

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## OVERVIEW OF THE *ACCOUNTING FOR SOCIAL RISK FACTORS IN MEDICARE PAYMENT REPORT SERIES*

Committee member Melinda Buntin, of the Vanderbilt University School of Medicine, set the stage for the following presentations and discussions by briefly describing the five reports in the series *Accounting for Social Risk Factors in Medicare Payment*. She then highlighted a few key aspects of the committee's work. She said that the committee chose to use the term "social risk factors" instead of "socioeconomic status" and defined the term as capturing the following factors: socioeconomic position; race, ethnicity, and cultural context; gender; social relationships; and residential and community context. She explained that the committee decided that although health literacy and disability are critical issues, they did not meet the committee's criteria for social risk factors in the context that the committee was considering, and they were therefore not included in the list. Although extremely important, the committee considered these factors more proximal risk factors for poor health outcomes that are influenced by more distal social risk factors, and which can be addressed by the health care system more directly than social risk factors.[2] She stated that the committee also considered data sources at length, discussing both sources that the Centers for Medicare & Medicaid Services (CMS) already uses as well as other potentially useful sources. She reiterated the care with which the committee tried to avoid unintended consequences that might result from its recommended strategies for data collection and accounting for social factors.

## ASPE IMPACT ACT STUDY A OVERVIEW

Karen Joynt, of the Harvard T.H. Chan School of Public Health and a former ASPE staff member, opened her presentation on Study A by noting that understanding the relationships between social risk factors and the care that beneficiaries receive is critical to aligning payments and ensuring that value-based purchasing programs achieve their goals. Study A examined the impact of social risk factors on quality and resource use, using existing data sources, and provided empirical analysis and considerations for policymakers. The social risk factors examined include dual enrollment in Medicare and Medicaid, residence in a low-income area, black race, Hispanic ethnicity, and rural residence; although not a social risk factor, ASPE also included disability. The study, she explained, had two major findings. First, beneficiaries with social risk factors had worse outcomes on average on quality and resource use measures, regardless of provider and dual enrollment status was the most powerful predictor of outcome. Second, providers who disproportionately served beneficiaries with social risk factors tended to have worse performance on quality and resource use measures. These findings, she said, led to a suggested three-part strategy for accounting for social risk factors in Medicare payment programs: Measure and report quality for beneficiaries with social risk factors; set high and fair quality standards for all beneficiaries, using measures that are examined and evaluated on their own merits (not adjusted); and harness value-based payment to reward and support better outcomes for beneficiaries with social risk factors.

## MEASURING AND REPORTING SOCIAL RISK FACTORS

David Nerenz, of the Henry Ford Health System, opened the panel by focusing on the importance of area- or community-level variables. Using the examples of Detroit and St. Louis, he suggested that "city stress" indicators—crime, poverty, unemployment, poor housing—can be correlated to hospital performance on a range of metrics. For example, he noted that all hospitals in Detroit had high readmissions rates, despite different organizational structures and profit models, and suggested that their universally poor performance may be attributed to common community characteristics such as those captured by measures of "city stress." He also used the example of the Henry Ford clinic system in the Detroit Metropolitan Area to illustrate how disparity can be reflected differently using process and outcome measures. He explained that efforts to reduce differences in hemoglobin A1c testing across high, middle, and low income clinics in the system have been successful, eliminating disparities across this process measure. Even so, he said, disparities persist in the outcome measure of hemoglobin A1c control, suggesting a need to clearly distinguish these two types of measures.

Beth Feldpush, of America's Essential Hospitals, explained that this network of 300 hospitals cares for many patients from disadvantaged communities. Based on her experience, she encouraged participants to disregard concerns that risk adjustment newly propagates a two-tiered system of care, because under the current system, patients

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[2] For discussion of the placement of health literacy and disability in the committee's social risk factor framework, see pages 69–71 of the report: National Academies of Sciences, Engineering, and Medicine. 2017. *Accounting for social risk factors in Medicare payment*. Washington, DC: The National Academies Press. doi: https://doi.org/10.17226/23635. Available at: https://www.nap.edu/23635 (accessed July 20, 2017).

with social risk factors already receive lower quality care on average. She also pushed back on the idea that because some hospitals that treat many low income patients do well on quality measures, they all can. She stated that patients with social risk factors face different kinds of challenges than do patients without them, and that risk adjustment for socioeconomic factors is necessary because it helps ensure that hospitals have incentives to be successful in treating all patients, irrespective of social risk factors.

Christie Tiegland, of Avalere Health, described how her company used a Medicare Advantage dataset along with data from the Area Health Resource file to conduct analyses of how income, education, and poverty affect health outcomes. She said that the analysis was conducted at the nine-digit zip code level. At this level, she explained, the data provided 30 million data points, compared to 250,000 data points at the American Community Survey block level, allowing Avalere to examine these factors more precisely. She used several examples related to medication adherence to illustrate how findings from this analysis varied depending on the variables that are adjusted for and how that can affect conclusions about performance.

Lisa Iezzoni of Harvard Medical School, expressed her strong support for the five social risk factors selected by the committee. However, she stated that disability also should be included as a social risk factor. To support this point, she explained a number of attributes that disability shares with some of the selected social risk factors, namely race/ethnicity, gender, and sexual minority status. For example, she explained, people with disabilities continue to experience significant discrimination and stress-inducing barriers and challenges on a daily basis. Additionally, she noted that people with disabilities experience relatively high rates of domestic violence, have high rates of smoking, overweight and obesity, and experience stigma when attempting to access medical care and treatment.

During the discussion, which was led by committee member and panel moderator Mark Hayward, of the University of Texas at Austin, a question was raised about ways to encourage standardized data collection and whether data on immigrant status should be collected. Feldpush responded that tools do exist to help hospitals collect data in a standardized way and noted that hospitals do not routinely collect data on immigration status.[3] Tiegland emphasized that health plans, social service agencies, community health centers, and other groups that have data on social risk factors must work together to break down barriers that inhibit information sharing. Iezzoni noted that given the diversity of disabilities, models should include various measures of this factor and that clinicians should ask about it. She recommended the six standard questions about disability the Office of Minority Health recommends to collect disability information and added that asking about disabilities also gives providers the information they need to appropriately accommodate their patients during visits.

Lee Fleisher, of the University of Pennsylvania Health System, noted that the cost of rehospitalization has been calculated based on sociodemographic or social risk factors and asked the panel whether this had been done for initial hospitalizations. Nerenz responded that this type of analysis has not been done in a formal, publishable way, but that anecdotal information indicates that episodes of care, both inpatient and outpatient, for individuals with social risk factors are more expensive. In response to a question from Patrick Romano, of the University of California at Davis, about whether highly stressed cities have certain characteristics that account for the worse health outcomes of socioeconomically disadvantaged groups in those cities, Nerenz provided three examples from his experience in Detroit that could provide some insight: the relatively small number of community health centers in the city, the lack of public transportation, and the dearth of Meals on Wheels programs. He added that these factors are completely independent of individual patient's characteristics but can have a profound effect on a person's health outcomes. Hayward added that these types of characteristics are particularly relevant for rural areas as well, and that the committee discussed the challenges experienced by rural areas at great length.

Helen Burstin, of the National Quality Forum (NQF), asked the panel to comment on ways to account for clinical and social complexity, and the challenges of measuring complexity in a claims-based payment environment. Feldpush and Nerenz agreed this was challenging, and Nerenz noted that his electronic medical record system has the potential to be used in this way. Meeting participants and panel members also talked about the challenge of distinguishing between a disadvantaged neighborhood and a patient who is disadvantaged and the difficulties of capturing social risk factors at the individual level and at the ecological level. Arlene Ash, of the University of Massachusetts, noted that clinicians are reluctant to be asked to collect data on issues they are unable to address. The ability to link an action

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[3] For a discussion on collecting data on immigration status, see the section on nativity, immigration history, and acculturation on pages 375–376 and the section on nativity on page 500 of the report: National Academies of Sciences, Engineering, and Medicine. 2017. *Accounting for social risk factors in Medicare payment*. Washington, DC: The National Academies Press. doi: https://doi.org/10.17226/23635. Available at: https://www.nap.edu/23635 (accessed July 20, 2017).

that can be taken on a problem to the collection of data about that problem is critical, she said. A final comment from Neil Calman, of the Institute for Family Health (a network of community health centers in New York City), focused on the disparity between the profits gained by academic medical centers and the financial losses experienced by public hospital systems, and that these disparities would persist until the core issue of accounting for social risk factors in payment policy is addressed. Feldpush agreed that affecting underlying payment disparities is challenging in the current disjointed payment system.

## MEASURING AND REPORTING HEALTH EQUITY

Philip Alberti, of the Association of American Medical Colleges, began by defining health equity as a state where everyone has an equal opportunity to achieve his or her full health potential and is not hindered by a set of socially derived circumstances. He then noted that measuring equity is different from measuring disparities. In a state of equity, he said, people might make varying choices, which might result in disparities, but that unjust differences would be minimized. He then reiterated Nerenz's point that distinguishing between process and outcome metrics is important, as is clarity between measuring patients versus communities. Process measures for patients can include accessibility, language services, adherence to clinical guidelines without bias, and identification and amelioration of inequities in healthcare processes. For health care entities, metrics might include authentic partnerships and collaborations with community groups, geographic location of services, transportation, and access. He concluded by noting that community engagement—how communities and patients can be authentically engaged—can influence both process and outcome measures.

Alan Zaslavsky, of Harvard Medical School, began by noting a distinction between health equity and health care equity. Many things, he said, influence individuals' health, including individuals affected by social risk factors, but these things are not part of the health care system. The practical implication, he explained, is that it is not possible to isolate everything that affects health and attribute the cause of each to the health care system. He then noted that measures can be used for a number of purposes, including policy development, research, and quality improvement. In conclusion, Zaslavsky raised the issue of accountability and the notion that hospitals should have broad accountability. He noted that if the hospital is going to be held accountable for what happens to the patient after discharge, then one could argue that it must be in control of those forces. However, he stated his belief that hospitals should not be responsible for fixing these larger forces, such as school systems, or transportation systems, or home health services. Rather, he stated, that it is important to look for other ways of controlling for all those factors and consider them part of a large system that has many intersecting parts.

Shantanu Agrawal, of NQF, explained that NQF is focusing on three issues in its work to incorporate social risk factors into measure development: how social risk factors affect measurement, how incentives and reimbursement influence measurement, and ways to consider best practices that providers can undertake to address social risk factors. He then described two broad areas of ongoing work. The first is a disparities committee that is helping NQF establish a roadmap for future work in this arena. The second is a 2-year trial that is seeking to incorporate social and other risk factors into measurement. Major conclusions from the trial to date, he said, were the real gap between the conceptual basis for risk adjustment and the ability to identify impact from that risk adjustment (this gap is tied to lack of sufficient data). The second is strong agreement about the need for risk adjustment to account for social risk factors. The third is continuing questions about when stratification by social risk factors is relevant versus including social risk factors in the risk adjustment.

Donna Zimmerman, of HealthPartners, discussed the organization's journey from looking at equitable care to holistically measuring health equity. This journey began in 2004, she explained, when all of HealthPartners' clinics launched an electronic health record system that allowed them to collect data on race, country of origin, and language. An important lesson, she said, was the need to ask these questions directly and in the same way at every interaction with patients. Additionally, she noted that it is important to providers that if they ask for information from patients, they should ask about issues that they can actually address. To that end, HealthPartners is doing some work to address food security, but other social risk factors are more difficult for the health system to address. She echoed Nerenz's experience at Henry Ford that virtually no disparities exist in process measures within the hospital. However, when drilling down into specific health disparities measures, where the clinics have somewhat less control, greater disparity exists. She noted that for HealthPartners, the biggest disparities are not by race, but by income. From her experience, other important messages are that health equity does not have one measure but is a set of measures and that transparency in reports and engaging with the community are critically important.

The discussion, which was led by panel moderator and committee member Darrell Gaskin, of the Johns Hopkins Bloomberg School of Public Health, began with a comment by Calman about a slide on social determinants of health that Zaslavsky presented. Calman noted that the arrows pointed in only one direction—from social determinants toward health and the health care system—but that a consensus is growing, at least among community health centers, that the arrows are bidirectional. Calman also had another perspective on Zaslavsky's point about hospitals not having responsibility for community-related institutions over which they have no control. He said he thought it is not so much about control but whether the hospital has influence over that institution. Zaslavsky amplified his point by saying that it is difficult for hospitals to address social risk factors without the collaboration and engagement of a robust public health infrastructure, and that it is difficult because public health is underfunded. Alberti commented that the two elements are not mutually exclusive—hospitals or health systems have control over some aspects of community health and they can engage in partnerships on other aspects.

Committee member John Ayanian, of the University of Michigan School of Public Health, asked the panel to comment on reporting health equity in ways that are useful to consumers and that helps them make informed choices. Panel members had several responses. Alberti noted the importance of developing a good understanding of patients' current experience in a health care setting and what it means for them to feel as though they have a full menu of choices and opportunities. Agrawal and Zaslavsky both mentioned that this is a challenge because health literacy is an enormous stumbling block for many patients that reduces their ability to make health care choices. Zimmerman noted that public reporting of patient experience scores, which give patients information about what their health care experience would be like, is still a valuable activity.

The conversation turned to the issue of how payment programs can be used to encourage improvements in health, not merely to maintain the existing players in their current roles. Committee member Daniel Polsky, of the University of Pennsylvania Leonard Davis Institute of Health Economics, suggested that effort should be put into designing a health care system and promoting existing opportunities to improve health through investment in the community. Randy Ellis, of Boston University, asked panel members to comment on the primary feature of social risk factors that are of concern in payment: Is it that social risk factors can cause too few diagnoses to be recorded, or that they can cause difficulties in treatment for a diagnosed condition, or that models cannot capture the costs that providers should be getting for a diagnosis? Gaskin replied that it is probably all three of those things, plus the fact that social risk factors also influence the effectiveness of the treatment itself. He added that the effort to consider social risk factors in payment programs is an effort to talk about fairness within value payment because when value-based payment is executed, it is clear that social risk factors could put some providers and some patients at a disadvantage. Ellis noted that he thought this effort was focused on more than just fairness, but it also had incentive effects that were intended to change provider behavior. Zimmerman agreed, noting that commercial payment policy pays on value, which incorporates quality, experience, and total cost, and this model has driven considerable change in medical practice and in the way hospitals and physicians work together.

## APPROACHES FOR INCORPORATING SOCIAL RISK MEASURES INTO MEDICARE VALUE-BASED PAYMENT POLICY

Arlene Ash described how Massachusetts Medicaid implemented some of the first social determinants of health variables in a payment model. She said that they first derived a neighborhood stress score from Census data, using address information, a new variable for housing instability, and several markers for disability. Second, she said that Massachusetts Medicaid has a new Section 1115 waiver that is helping managed care organizations improve the way they use their funds for long-term support services. Third, she articulated a need to identify programs that actually fix the problems associated with social risk factors. She said that the lack of successful models of social interventions is perhaps the major barrier to progress.

Randall Ellis, from Boston University, began by noting that it is important to be careful when including social risk factors in payment models to ensure that the money goes where it is intended to go, because inclusion of a certain social risk factor in a risk adjustment model does not necessarily lead to fairer payment for providers. He then described constrained regression, a promising approach that is being used successfully in the Netherlands to avoid the unintended effect of current risk models that undercompensate for particular risks. This is accomplished by identifying groups of patients who are likely to have high levels of need that are not fully captured by the available data and including a constraint in the regression model that ensures a particular group receives a fixed amount of additional compensation. Even more exciting, he said, was that the Netherlands has used this method for metrics that were calculated using

survey-based information and found they could correct for underpayments for some vulnerable groups. He concluded this example by noting that many social risk factors are closely correlated, especially at a geographic or plan level, and once several factors are included in the model, they may account well enough for the overall effect of social risk factors on quality scores and payment that not all social risk factor variables need to be included.

Mat Reidhead, from the Missouri Hospital Association, described how the Association has been working to account for social risk factors as they relate to readmission and the impact that these factors have on Association members participating in the Medicare Hospital Readmissions Reduction Program. He explained that Missouri has been enriching the risk adjustment models CMS uses to report hospital readmission rates with social risk factors, using hospital discharge data. First, he said, they have added Medicaid status and the poverty rate of the patient's Census tract to the standard demographic information and the patient's clinical comorbidities already included in CMS's models. Second, he stated that they account statistically for clustering of patients with similar levels of disadvantage at the census-tract level. He explained that this reflects the Association's assumption that the patient's community risk is a more powerful predictor of readmissions than the place at which the patient received the initial care. He then went on to describe results from changing the model. First, he said the Association has seen a huge reduction in variance in terms of the assessed risk-standardized readmission ratios, reflecting significant changes in and more accurate quality scores. Moreover, he said, the safety-net hospitals have seen the greatest changes. Across all hospitals, he stated that the Association has seen a clear relationship between hospital-level values of the social risk factors included in the enriched model (e.g., Medicaid status and poverty rates for the hospital's patients and their communities) and improvement in the resulting risk-standardized readmission ratios. He noted that the models also help to more accurately predict which patients have higher risk of readmissions.

Akin Demehin, of the American Hospital Association (AHA), stated that he would comment on four key policy challenges that arise when accounting for social risk factors. The first challenge, he noted, is finding the right data to account for these factors. The data must be consistently collected, the definitions must be clear, and a conceptual relationship must be established between the proxy chosen and the outcome that is being measured. He said that the proxy that the AHA has chosen is dual eligible status. The second policy challenge, he said, is figuring out the risk scoring approach. This approach has evolved to a more direct form of risk adjustment, when the proxy is actually placed into the risk model. A factor like dual eligibility is challenging, he said, because it is sensitive to differences in the design and relative generosity of state Medicaid programs. This means, he noted, that careful thought must be given to how the factor plays out in the model over time. The third challenge is the scoring approach and the use of peer grouping. He said that he supports the peer grouping approach but it will be important to recognize that hospitals will have questions about the cut points between groups and how they are assigned, how decisions are made about which groups receive penalties, and how the process can be as fair and objective as possible. The fourth challenge, he states, is the number and variety of pay-for-performance programs. Trying to manage the complexity of all these programs is a challenge for hospitals, he said, and developing ways to provide more consistency to the hospitals would be of great assistance.

Committee member and panel moderator Meredith Rosenthal, of the Harvard T.H. Chan School of Public Health, opened the discussion by asking the panelists to comment on the tension between payment systems that adjust for elements that providers cannot control so that incentives to not serve high-risk patients are diminished, while trying to keep incentives for quality improvement as high as possible. Reidhead responded by noting that the tension reinforces the importance of community, which is a very difficult construct to measure. Ash stated that the larger goal of trying to build models that recognize social risk factors is to reveal the high cost of failing to pay for anything unless it brings a person to the hospital. She added that researchers could help public payers understand that shifting resources between health care and social programs are worth the investment because they could lead to systemic solutions that address safety-net issues as well as hospital care. Ellis noted that a number of payment system innovations are trying to give primary care practices or accountable care organizations some ability to choose to spend money on things like an air conditioner for a patient with asthma or a life coach to help with behavioral change. Though they are promising, Ellis cautioned that health care payment systems are a blunt tool for these types of strategies.

The discussion shifted to risk adjustment and stratification, with panel members agreeing that stratification may be the best way to help providers understand the differences within their own populations and that these analyses can be part of a broader conversation about identifying gaps in community resources. Committee member Marc Elliott, of the RAND Corporation, noted that stratification can be used in two ways—stratification by individual characteristics to illustrate disparities, and stratification that groups institutions or providers based on their characteristics. These two types of stratification may also point to the need for different kinds of solutions.

Rosenthal then asked panel members to comment on how systems of accounting for social risk factors should be evaluated and updated. Reidhead explained that Yale Center for Outcomes Research & Evaluation (CORE) convenes a group of experts to confer and run various possibilities though bootstrap stepwise regressions. He also suggested that idea of creating a clearinghouse, which could be used to evaluate conditions and outcomes and social factors as they emerge. Ash noted that Massachusetts will be conducting an independent evaluation of the Massachusetts Medicaid Section 1115 waiver program, which should provide useful information.

Romano commented on previous discussions of using administrative, or coded, data to capture social risk factors. He reminded participants that conditions only get coded if they have an impact on the care that is provided to the patient. That becomes problematic for social risk factors, like homelessness. Some rethinking of coding rules may be necessary, he said if risk adjustment is to be changed to incorporate social risk factors. Demehin added that researchers may have to start thinking differently about how to overcome the practical barriers to incorporating data other than Medicare claims data and administrative data. Following on this conversation, Ash expressed her opinion that it would be good for the research community to settle on one excellent data collection instrument and decide on a certain number of core questions that everyone would be asked. Reidhead countered with a caution against a one-size-fits-all approach. Demehin noted that a number of variables that can be applied to a number of different measures but that each measure should be evaluated on a case-by-case basis.

## STRATEGIES FOR SUPPORTING BETTER OUTCOMES FOR BENEFICIARIES WITH SOCIAL RISK FACTORS

Marshall Chin, of the University of Chicago, stated that he would cover three main points. The first, he said, was that a fair amount is already known about what types of care transformation and interventions can reduce disparities. However, much of that knowledge is not being applied. He referred to a Robert Wood Johnson-funded roadmap to reduce disparities and highlighted three principles from that report: (1) there is no magic bullet of a care transformation intervention to reduce disparities; (2) instead, change occurs through a systematic process involving an organization's recognition of, and commitment to, reducing disparities; (3) change has a better chance of occurring when a menu of evidence-based interventions tailored to the local context, the patient context, and the organizational context is provided. The second main point, he said, was that consensus is emerging that adjusting for social risk factors should be done only when it makes a difference. He cautioned that social risk factor data currently available are often crude and that may be a factor in the many studies showing no effect on quality scores or payment that are being published. He also noted that social risk factor adjustment is part of the solution but that it may not be the most important part, and that to achieve equity, the policy toolkit needs to be expanded. He then described his third main point, which concerns the need to align financial incentives. Tools to do this, he said, include paying to reduce disparities by including equity accountability measures in payment program, strengthening incentives for prevention and primary care through intersectoral partnerships, and taking care of safety-net providers through adequate payments, support for quality improvement, and risk adjustment to create a level playing field. He closed by noting that NQF is conducting similar work in this area to lay out a framework in which disparities are identified through stratified measures, a quality improvement process is developed that allows organizations to take action, and these actions are linked to payment.

Kelly Doran, of the New York University School of Medicine, noted that her work every Saturday night as an emergency department physician in a safety-net hospital brings home the reality of her research on homelessness. She explained that in her emergency department alone, one in five patients reports having been homeless in the past year and rates of other social needs are similarly high. She noted that focusing on homelessness may seem "pie in the sky" for safety-net hospitals who are struggling with basic decisions, such as whether they can have a social worker on staff 24 hours per day. These hospitals, she said, are likely to require robust technical assistance and sufficient resources in order to implement strategies to address patients' social risk factors. She described several promising new strategies, with the caveat that research on these strategies is still in its infancy. One of the best evidence-based interventions, she said, is supportive housing. Many studies, she noted, show that this program can permanently end a person's homelessness, and a small body of evidence shows that supportive housing also can reduce emergency department visits and hospitalizations. Another strategy is medical respite programs, which provide a bridge to supportive housing. She explained that these are programs for people who are homeless and too sick to be on the streets or in shelters but not sick enough to need a hospital. Evidence on the effectiveness of this strategy has been generated by a recent systematic review, she said, and the Center for Medicare & Medicaid Innovation is currently conducting a multi-site evaluation that should provide additional evidence. Finally, she mentioned the Bronx Health and Housing Consortium, which

includes hospitals, health centers, housing agencies, and community groups. These groups have worked together, she said, to identify the problem and population in need, conduct needs assessments, and collect data that inform their efforts. In conclusion, she reminded participants that the value of these strategies goes beyond their contributions to the health care system. Indeed, she noted that they provide a framework for incorporating social justice and human rights principles that can help to achieve health equity.

Joshua Sharfstein, of the Johns Hopkins Bloomberg School of Public Health, agreed with Doran, noting that a promising way forward is to think about paying health care providers in alignment with the overall problem, which means measuring the problem clearly and incorporating significant incentives for collaboration with other types of organizations to effectively address the problem. From a public health standpoint, he said, he does not think in terms of equity in patient outcomes but of equity in terms of actual health outcomes in communities. He explained further, stating that the financing of a health care system should be aligned with the health of its community. Some hospitals, he said, have begun to do this by taking over school health programs, getting involved in homelessness issues, and engaging in other kinds of efforts that are in their financial interest because they may be able to improve the health of the overall community. Another way that hospitals can align their efforts with the health of the community is how they use and share data. He explained that Maryland has a health information exchange that provides information about preventable outcomes at any level of geography. He cited the example of asthma, where the data in the exchange allow county health officers to consider the amount of preventable asthma in a community, rather than merely asthma quality scores or other measures of disparities. To do this, however, means looking at community-based outcomes measures, which can be done if hospitals are willing to share data. He also noted that public health has tools that clinical medicine does not have, and using hospital data as a way to learn about what is going on in communities can inform multi-sectoral partnerships and the application of those tools.

David Pryor, of Ascension Health, described the organization as the largest not-for-profit Catholic hospital system in the world, serving more than 2,500 locations, including 141 hospitals in 23 states and the District of Columbia. He stated that Ascension has a goal of eliminating all preventable outcome disparities in its facilities by 2022. He outlined a few key points Ascension has considered when trying to achieve this goal. The first, he explained, has been to develop a multi-faceted care model that has 12 to 15 clinical risk factors (e.g., complex chronic, frail elderly) and 12 to 15 social risk factors. This created a matrix of about 225 cells that provide a lens through which to gather information about patients and determine the principal issues to address for the patient. Data collected to date, he said, indicate that this model contributes to high-quality performance and substantial savings. He also noted that Ascension has trailing indicators for Medicaid and Medicare that have taken the system from a medical loss ratio from 93.1 percent to 81.7 percent in 18 months, while also showing improvements in quality metrics. Examples of these indicators include diabetes, obesity, food insecurity programs, and community participation. He noted that the partnerships that Ascension has in each community are different, which points to the value of first creating a framework to look deeply at, and understand, patient and community characteristics. He concluded by mentioning several other community-focused programs in which Ascension is involved, including housing programs, behavioral health efforts using tele-health strategies, initiatives to increase access to affordable medications, and dental health programs.

Ayanian, the panel moderator, opened the discussion by asking Chin about how the health care system can move efforts to reduce inequities from the early adopters, like Ascension and or HealthPartners, to the health care system more broadly and how it can make the business case that it should be part of the standard of practice in the American health care system. Chin agreed that making the moral case clear is part of the task but a business case also needs to be made. Even mission-driven organizations can only do so much if the finances do not align. The second element is providing a resource infrastructure that allows well-meaning people to provide the best possible care. Doran noted that it is important not to oversell the cost benefits and to also emphasize the human value associated with incorporating social risk factors. Sharfstein agreed, saying that in some cases it may not be possible to detail a compelling business case. Pryor added that in his opinion, the priority is to figure out the right care model and then determine how to make a business model to financially support it. He added that by learning how to deliver care to those who are most in need, the health care system will learn how to improve the quality of care delivered to everyone. Calman repeated Doran's point about safety-net hospitals' concerns about basic needs, such as sufficient social work staff, and noted if providers do not have the resources they need up front to do their work, then it is not possible to get to an equitable system. The reality is that the good outcomes that are possible may never actually justify from a business point of view the up-front resources that are necessary, and without recognizing the social value of those outcomes, the business value will never be a sufficient justification. Doran agreed, stating that serving people with complex social needs will always be expensive and that may be all right because it is important to provide high-quality health care to everyone.

Chin agreed with the importance of the moral mission and intrinsic motivation and said that payment systems must be carefully designed so that they do not destroy those motivations.

Committee member Robert Ferrer, of the University of Texas Health Science Center at San Antonio, noted how Section 1115 Medicaid waiver programs have allowed many institutions to collaborate regionally and institute programs that incorporate social risk factors. These programs have been useful, he said, but it does take several years to get everything possible out of the intervention. Sharfstein agreed about the value of statewide or regional collaborations and noted the fact that Maryland has real-time data from all the state's hospitals that has substantially improved their ability not only to provide care but to map the billing codes so that inequities can be tracked and addressed.

In the final moments of the discussion Zaslavsky asked about the level of evidence needed to show what works in incorporating social risk factors. Are randomized trials necessary or can a different level of evidence be gleaned from local initiatives and interventions? Doran stated that she would be happy with evidence from efforts that include control or comparison groups, as pre-post observational efforts have limitations. Pryor stated that the level of evidence required for an intervention to be accepted by a peer-reviewed journal is not the level of evidence that is generated in real-world contexts. In a real-world context, one might ask whether the intervention works in a pilot setting. If it does, the next step would be to transfer the intervention to a different place to see if could be replicated. A successful replication would then generate confidence in the results.

## ASPE IMPACT ACT STUDY B OVERVIEW

Robin Yabroff, of ASPE's Office of Health Policy, opened by explaining that the IMPACT Act mandated that ASPE work on social risk factors and value-based payments in four arenas. The final report encompassing the four arenas is due October 2019. She said that she would discuss the second of these arenas, or Study B, which will examine social and clinical risk factors that are available in survey data that may not be fully, or at all, measured with current data sources. She stated that Study B will use the conceptual framework and recommendations from the National Academies reports on *Accounting for Social Risk Factors in Medicare Payment* to explore new survey-based measures of social risk, and to evaluate whether new measures can more precisely capture a beneficiary's clinical risks, thereby providing a more complete explanation of observed associations between high social risk and poor outcomes. She noted that ASPE would be using both the Medicare Current Beneficiary Survey (MCBS) and the American Community Survey (ACS) linked to Medicare claims data to conduct Study B. These two data sources will provide data both on the community and the individual level. This will allow ASPE to examine individual measures such as marital status, living alone, and social support, as well as community measures, such as area deprivation, food and housing security, and other environmental measures. Examining these factors, she said, will allow ASPE to achieve several goals, which are to assess which social factors are the strongest predictors of poor outcomes, explore interrelationships between individual and community measure of social risk and outcomes, and evaluate the association between social risk factors and provider performance.

The discussion opened with two questions from Ninez Ponce, of the University of California at Los Angeles Fielding School of Public Health. Ponce first asked whether Study B would consider using modeled estimates such as the big data from Acxiom to look at small area estimations. She also asked how Study B would assess acculturation, immigration status, and citizenship. Yabroff responded that Study B is an opportunity to explore many different area level measures and see how they perform. ASPE is beginning with the Area Deprivation Index. As to the second question, the available data are limited and they are looking to see how some standard measures might approximate the acculturation issues. Polsky then stated that he would like to see ASPE push the boundaries of incorporating social risk factor data even if they are not perfect. Yabroff responded that they will be looking at individual-level factors with the MCBS data and provider-level factors with the ACS data. She mentioned that the Medicare claims data will allow them to look at frailty-based measures. Joynt responded to a comment from Polsky about whether including social risk factors data that is available but may have limitations in adjustments moves scores and payment in the intended direction, saying that this was a smart way to think about the study. For example, knowing which measures always go together, or not, will be very valuable in determining priorities for measures to collect in future analyses. It will come down to determining what variables are worth examining for the costs required to include them.

Fleisher asked about the utility of using electronic health record (EHR) data to examine social risk factors. Yabroff responded that some of the factors are not well-reported in EHRs but the hope is that this technology will provide more information in the future. Joynt added that billing practices differ from institution to institution and that affect coding, which affects patient profiles. She also noted that EHR data currently have some specific challenges that diminish their usefulness, but the data may be helpful in the future.

Romano noted that he had been thinking about Iezzoni's remarks on disability and he asked how Study B was going to handle interactions between patient characteristics, social risk, and provider characteristics. Joynt and Zuckerman agreed that these were complicated interrelationships and that Study A had attempted to address them. John Shaw, of Next Wave, asked whether Study B would be looking at measures for informal or family caregiver support, especially for long-term services. Yabroff thanked Shaw for the excellent question and noted Study B has a number of questions about activities of daily living so it will be possible to explore it. In response to a question from Ellis about measures that change over time and those that do not, Yabroff said that Study B accounts for these and that they will be looking carefully at factors, like social support, that do change. Steve Jencks, an independent consultant, noted that collecting and analyzing the data will take a long time and suggested a different approach, which is to postulate several findings and then determine possible policy options in response. Joynt responded with thanks for the comment and stated that Study B is unlikely to reveal anything surprising but that it will spur necessary and valuable conversations that will move research and policy forward. Stefanie Schmidt, of the Mitre Corporation, asked about the extent to which Study B will examine how Medicaid policy has influenced Medicare policy for dual-eligibles, Joynt noted that this was an important issue to consider but that ASPE had not included it in the scope of the study.

Zaslavsky asked whether Study B planned to use indices like the Area Deprivation Index and also whether the Study specifically wants to be able to separate out social risk factors or merely add additional variables to obtain better prediction capabilities. Yabroff replied that they would be looking at indices like the Area Deprivation Index. She also said that Zaslavsky's second question relates to one of ASPE's charges, which is to make recommendations about the importance of additional data, and that they would be considering this as the study evolves. Joynt added that ASPE's goal is not to merely add more data if it can achieve the same outcome with less data.

## CONCLUDING REMARKS AND ADJOURNMENT

Nancy De Lew, of ASPE, thanked the presenters and the audience members for a stimulating and productive day. She stated that one of her goals for the day was to get a mix of participants and perspectives and the goal was achieved. She thanked the group for giving ASPE many good ideas to take forward and reiterated Yabroff's invitation to send ASPE material that might be useful in conducting Study B. Committee chair Donald Steinwachs, of the Johns Hopkins Bloomberg School of Public Health, echoed De Lew's thanks and stated on behalf of the committee that it was a pleasure to contribute to the important work of helping Medicare improve the future health of Americans.♦♦♦

## Health and Medicine Division

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