Lack of Insight Into Social Determinants of Health: Utilization, Health Outcomes and Costs

Presented By:

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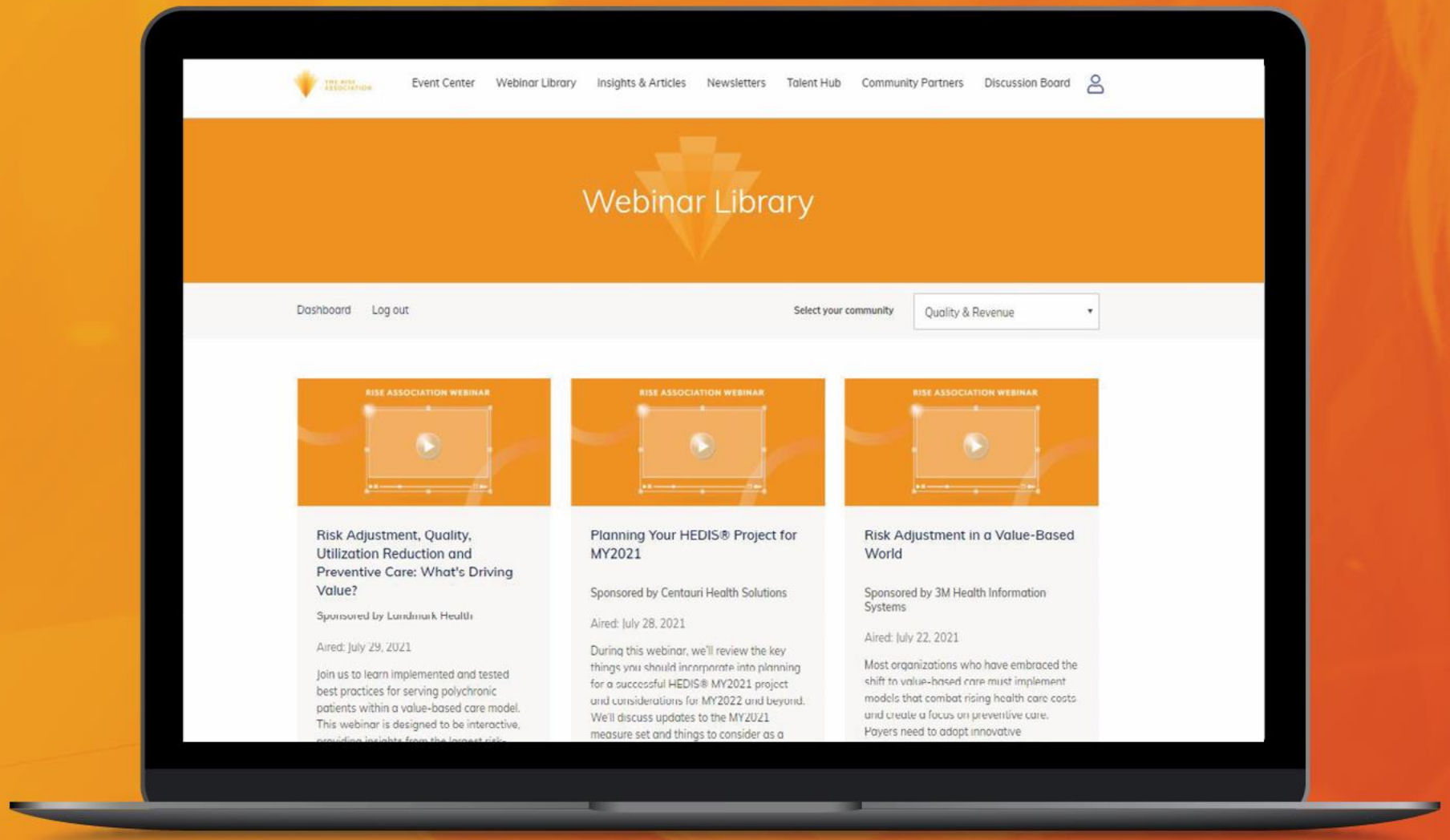

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Today's Speakers

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Why All the Commotion About Social Determinants of Health?

There is a **growing consensus** among healthcare stakeholders that social determinants of health (SDOH) are powerful influencers of health outcomes, utilization, and cost

But there is **less of a consensus** about how to use this information to improve access to care, patient care and outcomes, performance measurement, and payment systems.

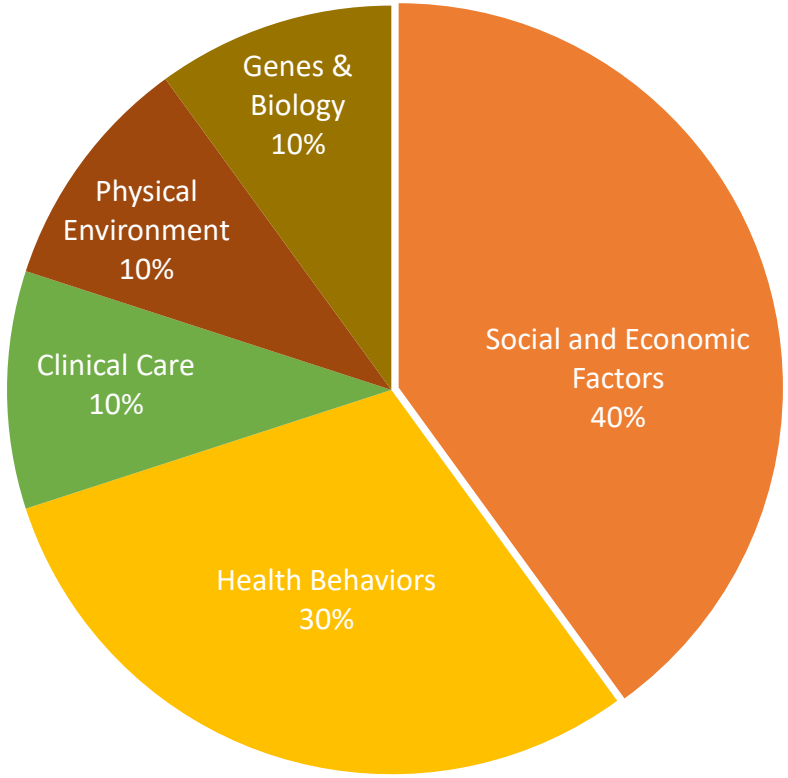
Specifically, there is fierce debate over when it is appropriate to adjust quality measures for SDOH.

*"What is clear at this point in time is that…**social risk factors** have been shown to influence **health care use, costs, and outcomes**…"*

–National Academies of Medicine[1]

What Contributes to Overall Health?

Clinical care contributes only **10%** to overall health while **SDOH, Health Behaviors, and Environment contribute 80%** to overall health.[1]



SDOH in Context: Drug Adherence

Access limitations caused by **social and economic barriers** can lead to poor medication management of chronic conditions and severe complications

> *"**Interventions to improve medication adherence** could be more effective if patient's health literacy, cultural background, and language preference and proficiency are taken into account."*
> Centers for Disease Control and Prevention[1]

Example: Risk Adjustment of PQA Medication Adherence Measures

Dual eligible status alone increased likelihood of being non-adherent to medications. When other SDOH factors were included in the risk adjustment model, such as income and education, members who were ***dual eligible were actually more likely to be adherent than members who were low income*** but not dual eligible.

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SDOH: Social Determinants of Health

1: CDC. *CDC Grand Rounds: Improving Medication Adherence for Chronic Disease Management — Innovations and Opportunities.* 2017. Available at https://www.cdc.gov/mmwr/volumes/66/wr/mm6645a2.htm
2: World Health Organization. *Adherence to Long-Term Therapies: Evidence for action.* 2003. Available at https://www.who.int/chp/knowledge/publications/adherence_full_report.pdf

Risk Adjustment Basics

Risk adjustment accounts for factors affecting a quality measure that *do not reflect the quality of care*.

- For example, if older patients have poorer outcomes for reasons not involving the quality of care, adjusting outcome measures for age produces fairer "apples to apples" comparisons across entities being assessed (e.g., health plans, hospitals).

Indeed, there is widespread consensus that it is appropriate to adjust quality measures for demographic and clinical factors such as age, comorbidities, and disease severity.

However, adjusting for patient social risk factors (e.g., poverty) or area SDOH (e.sg., neighborhood poverty)—*even when such adjustments are found to affect health care outcomes with same quality of care*—remains controversial.

Evolution of Risk Adjusting Quality Measures for SDOH

2014:

NQF Expert Panel Report called *for risk adjustment for SDOH* under defined circumstances. NQF board adopted recommendations and changed prior policy that had forbidden adjustment for SDOH.[1]

2020:

DHHS Office of the Assistant Secretary (ASPE) Report to Congress recommended *against adjusting for social risk factors* in quality measures used in public reporting and value-based purchasing programs.[2]

2021:

NQF Risk Adjustment Guidance Technical Expert Panel in partnership with the Centers for Medicare and Medicaid Services (CMS) convened to provide *further technical guidance on SDOH risk adjustment in quality measures* and develop recommendations on best practices.[3]

1. National Quality Forum. Risk adjustment for socioeconomic status or other sociodemographic factors: technical report [Internet]. Washington (DC): NQF; 2014 [cited 2021 Feb 19]. Available from: https://www.qualityforum.org/Publications/2014/08/Risk_Adjustment_for_Socioeconomic_Status_or_Other_Sociodemographic_Factors.aspx

2. Office of the Assistant Secretary for Planning and Evaluation. Second report to Congress on social risk and Medicare's value-based purchasing programs [Internet]. Washington (DC): ASPE; 2020 [cited 2021 Jan 21]. Available for download from: https://aspe.hhs.gov/pdf-report/second-impact-report-to-congress

3. National Quality Forum. Developing and Testing Risk Adjustment Models for Social and Functional Status-Related Risk Within Healthcare Performance Measurement - Final Technical Guidance, August 2021. Available from: https://www.qualityforum.org/Publications/2021/08/Developing_and_Testing_Risk_Adjustment_Models_for_Social_and_Functional_Status-Related_Risk_Within_Healthcare_Performance_Measurement_-_Final_Technical_Guidance.aspx

"First, do no harm"

A Response to ASPE Report to Congress

I collaborated with several colleagues and experts in SDOH to co-author an article that was published in **Health Affairs** in April 2021 titled *"Adjusting Quality Measures for Social Risk Factors Can Promote Equity in Healthcare."* [4]

- Reviewed arguments for and against social risk adjustment
- Proposed questions to address when considering whether to adjust for social risk
- Offered a set of recommendations on when to adjust for social risk

The article concluded that social risk adjustment should be the *default option* when there are valid empirical arguments for and against adjustment to avoid worsening inequity in the health care system.

- Main rationale was the expansion of value-based payment programs exacerbates concerns about the adverse effects of SDOH on provider payments
- Providers with the fewest resources often serve the most vulnerable people, and without appropriate risk adjustment, these providers are most likely to be penalized

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4. Nerenz D, Austin JM, Deutscher D, Joynt Maddox K, Nuccio E, Teigland C, Weinhandl E, Glance L, Adjusting Quality Measures for Social Risk Factors Can Promote Equity in Healthcare, Health Affairs, April 2021 40:4.

Best Practices for Developing and Testing Risk Adjustment Models

Presented By:

Matthew K. Pickering , PharmD

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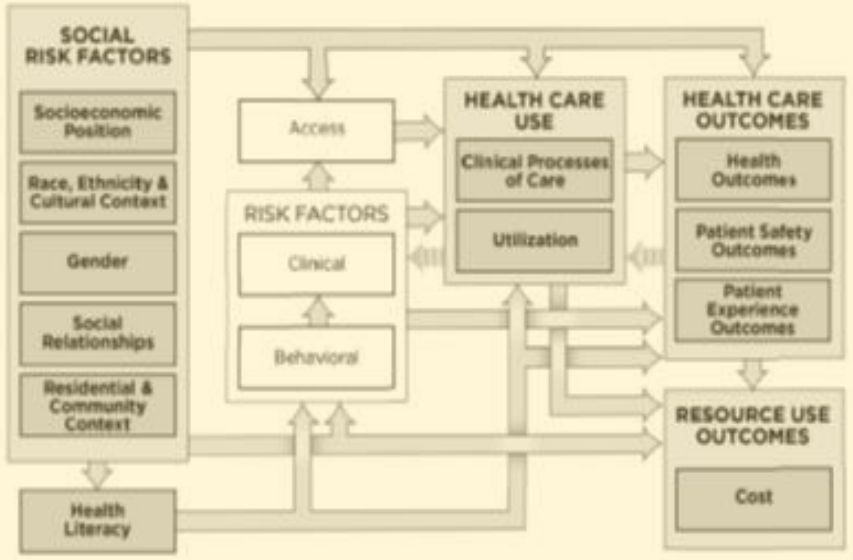
NQF Activities in Multiple Measurement Areas

NQF is serving as the consensus-based entity (CBE). NQF brings together public and private sector stakeholders to reach consensus on healthcare performance measurement. The goal is to make healthcare in the U.S. better, safer, and more affordable.

Performance Measure Endorsement	Measure Applications Partnership (MAP)	Measurement Science
• 600+ NQF-endorsed measures across multiple clinical areas • 15 empaneled standing expert committees	• Advises HHS on selecting measures for 20+ federal programs	• Convenes private and public sector leaders to reach consensus on complex issues in healthcare performance measurement

The Importance and Challenges of Adjusting for Social and Functional Risk Factors

Figure 1. Health Care Access Conceptual Model



National Academies of Sciences, Engineering and Medicine 2016 report

- Fair and meaningful quality and resource measures are the foundation for value-based care
- Quality measurement can be a lever for advancing health equity and improving healthcare disparities.
- Social and functional risk factors can directly affect outcomes and/or indirectly do so through behavioral or clinical factors
- However, ***when and how*** to adjust for social and functional factors for fair comparisons and for promoting health equity remains inconsistent with limited consensus

Base Period Accomplishments

Convened a multistakeholder TEP to provide expertise and guidance towards major project components.

Conducted an environmental scan of data sources used for risk adjustment, functional or social risk factors available for testing, and approaches to conceptual and statistical methods for risk adjustment. The environmental scan informed aspects of the Technical Guidance.

Developed Technical Guidance for measure developers that includes emerging best practices on when and how to adjust for functional and social risk factors in measure development.

- The intent of this guidance is to further support NQF-endorsement considerations, in which there has been a perceived need for clarity in the evaluation of these risk models.
- Furthermore, this work may have implications for the review and consideration of measures for use within public reporting and accountability applications.

Technical Guidance Overview

Introduction

- Background and Purpose
- Core Principles

Technical Guidance

- Conceptualizing the Model
- Identifying and Selecting Potential Data Sources and Variables
- Empirically Testing Risk Factors
- Empirically Testing the Adequacy of the Risk Model
- Considerations for Determining the Final Risk Adjustment Model

Conclusion

- A Path Forward

Appendices

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- Conceptualizing the Model
- Identifying and Selecting Potential Data Sources and Variables
- Empirically Testing Risk Factors
- Empirically Testing the Adequacy of the Risk Model
- Considerations for Determining the Final Risk Adjustment Model

NQF Minimum Standards for Social and/or Functional Risk Adjustment

1. A conceptual model is required and should illustrate the pathway between the social and/or functional status-related risk factors, patient clinical factors, quality of care, and the measured healthcare outcome.
2. Developers should consider age, gender, race/ethnicity, urbanicity/rurality, Medicare and Medicaid dual-eligibility, indices of social vulnerability (such as the Area Deprivation Index, AHRQ SES Index score for the analysis) and markers of functional risk (such as frailty, ADLs, IADLs) in the conceptual model.
3. If social and/or functional status risk factors are not available, but included in the conceptual model, the developer should describe the potential bias that may exist and the direction and magnitude of that bias as a result of not including the risk factor(s) in the model. The developer should also provide a justification of why the measure still has validity even in this circumstance.
4. Document and fully disclose data sources, including the dates of data collection, any data cleaning and manipulation, and the data's assumed quality (Table 1). Developers can cite other research to show data quality of those variables. Developers should also provide a description of the populations covered within that dataset.
5. Developers should provide descriptive statistics on how the risk variables identified from the conceptual model are distributed across the measured entities.
6. Calibration should be conducted not just with the overall population, but also with the subpopulations. All risk models should be tested and vetted to examine to what extent do they under or over-predict in a substantial way for important subgroups with social or functional risk. If a risk factor is not included in the model, the developer should, at a minimum, provide evidence that its removal does not create a misprediction for that group or subgroup. Developers should be transparent about their approach and their interpretation of the results.
7. Risk stratification should be conducted in conjunction with risk adjustment to ensure that the risk-adjusted measure to identify healthcare disparities.

A Path Forward

- The intent of this guidance is to further support NQF-endorsement considerations, in which there has been a perceived need for clarity in the evaluation of these risk models.
- This work will also help to identify levers in support of priority efforts by NQF and CMS to promote health equity and reduce disparities.
- Furthermore, this work may have implications for the review and consideration of measures for use within public reporting and accountability applications.
- NQF will continue to seek to advance measurement science by engaging relevant stakeholders to garner feedback on the feasibility and utility of this guidance. Medically underserved populations will be solicited for their input and feedback on this work.
- This feedback will be instrumental in updating the guidance and subsequent NQF measure evaluation criteria and policies to reflect the ever-changing healthcare landscape.

Calls to Action for Addressing SDOH Factors

Presented By:

Brigit Kyei-Baffour

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Utilizing SDOH Data to Reduce Disparities

Avalere has engaged with key stakeholders to address SDOH barriers to care and identified several solutions which stakeholders can utilize access to SDOH data to tackle disparities.

Patient Population Mapping	Stakeholder Partnerships	Community Based Resources
Understanding variations in treatment patterns and health outcomes among specific patient populations via assessment of race, income, and other SDOH factors	Expanding stakeholder partnerships beyond traditional engagements and piloting interventions; leveraging digital health partnerships	Connecting patients to tailored community resources and benefits or developing portals that connect patients to social solutions such as transportation, lodging, and meals

Call to Action: Patient Mapping

Avalere has partnered with stakeholders to address SDOH barriers to care through development of patient population mapping by social risk factors such as:

- Lodging and transportation needs
- Access to food/meals
- Language and literacy (e.g., health literacy)
- Income

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Avalere analyzes claims that capture non-medical risk factors most prevalent within a specific patient population that can impact health outcomes and healthcare costs

Leveraging ICD-10-CM Z-codes that capture SDOH data help quantify non-clinical needs and outcome risks that contribute to barriers to access and reflect gaps in treatment journey

Analysis helps quantify issues related to adherence and lack of follow up in receiving care, as well as helps care team initiate and track referrals to necessary social services

Insight into SDOH factors allows stakeholders to deploy targeted support and identify most prevalent risk factors within a population to improve health outcomes and quality of care

Call to Action: Stakeholder Partnerships

Findings from a September 2021 virtual health equity summit convened by Eli Lilly and NEHI in partnership with Avalere Health were published the Equity in Health and Healthcare: A Roadmap to Collaborative Action.

The Roadmap served as a guide on tackling health disparities by leveraging stakeholder partnerships to innovate and collaborate across three primary domains digital health, data and analytics, and healthcare access.

5. Network for Excellence in Health Innovation. Equity in Health and Health Care: A Roadmap to Collaborative Action. Posted December 13th, 2021. Available from: https://www.nehi-us.org/publications/92-equity-in-health-and-health-care-a-roadmap-to-collaborative-action/view

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- The Roadmap emphasized developing standards and engaging communities in the collection and sharing of SDOH data, including improving the collection of individual SDOH data to improved health disparities

- Stakeholders continue to conduct widespread efforts to address SDOH and improve disparities such as transportation to medical services, and access to food, nutrition, nutrition, fitness and digital needs

- Collection and analysis of patient health data and access to services can facilitate conversations around securing coverage for SDOH support. Current methods of collecting data lack standardization for measuring improvement

- The Roadmap serves as a call to action to develop processes for expanding SDOH data collection efforts to help holistically address medical and non-medical drivers of health

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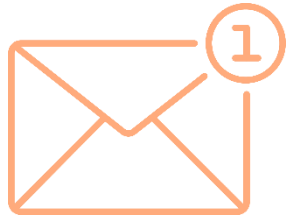

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