Risk Adjustment and Sociodemographic Factors

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NATIONAL QUALITY FORUM

NQF: What We Do

NQF's work catalyzes healthcare improvement through quality measurement and reporting.

- Gold standard for quality measures – consensus-based standard setting organization
- An essential forum-- >400 members and >800 volunteer leaders across multiple stakeholders
- Quality Leadership—convenes private and public sectors to reach consensus on healthcare's complex & controversial issues in measurement (e.g., SES & risk adjustment, linking cost & quality)

Background

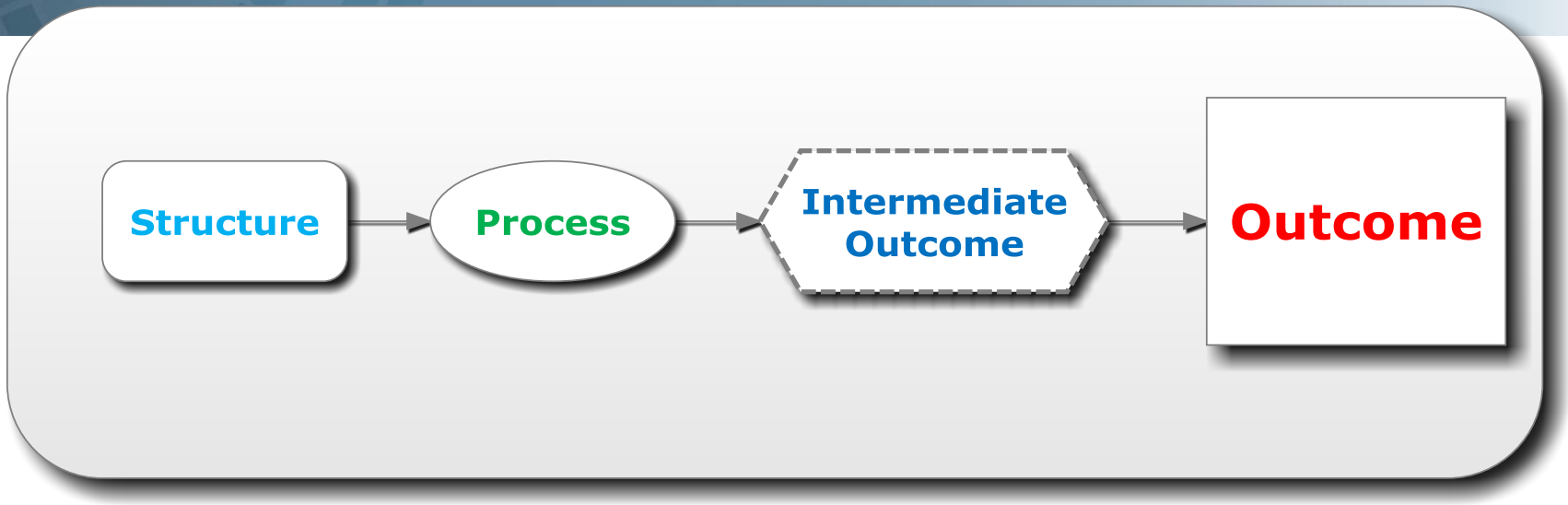
- Patient sociodemographic factors influence outcomes through a variety of pathways
- Sociodemographic factors may also be related to disparities in health and healthcare
- NQF policy to date has prohibited consideration of sociodemographic factors in risk adjustment
  - Sociodemographic factors =
    - » Socioeconomic (e.g., income, education, occupation)
    - » Demographic factors (e.g., age, race, ethnicity, primary language)*

*Race/ethnicity should not be used as a proxy for SES.

Why Consider SDS Adjustment Now?

- Overall quality has improved, but disparities have not
- Growing evidence regarding role of SDS factors on many outcomes
- Evidence-based interventions that could help close the gap require additional resources
- Stratification has largely failed to materialize
- Shift from process to outcomes reporting
- Higher financial stakes has heightened concern, especially for safety net providers

Preference for Outcomes



- **Hierarchical preference for:**
  - Outcomes linked to evidence-based processes/structures
  - Outcomes of substantial importance with plausible process/structure relationships
  - Intermediate outcomes
  - Processes/structures (most closely linked to outcomes)

Key Questions Explored by Expert Panel

- Does adjustment mask disparities or meaningful differences in quality?
- Does adjustment create different standards?
- Are sociodemographic factors different than clinical or health status factors?

Types of Potential Patient-Related Risk Factors

- Genetics (e.g., predisposition to conditions)
- Demographic characteristics (e.g., age, sex, ethnicity, language)
- Clinical factors (e.g., diagnoses, conditions and severity)
- Psychosocial factors, socioeconomic, and environmental factors
- Health-related behaviors and activities (e.g., tobacco, diet)
- Quality of life, attitudes, and perceptions

NQF Expert Panel Members

- **Kevin Fiscella, MD, MPH (U Rochester)**
- **David Nerenz, PhD (Henry Ford)**
- Jean Accius, PhD (AARP)
- Alyce Adams, MPP, PhD (Kaiser)
- Mary Barger, PhD, MPH, CNM (UCSD)
- Susannah M. Bernheim, MD, MHS (Yale)
- Monica Bharel, MD, MPH (HC Homeless)
- Mary Beth Callahan, ACSW/LCSW (Dallas
- Lawrence Casalino, MD, PhD (Cornell)
- Alyna Chien, MD, MS (Boston Children's)
- Marshall Chin, MD, MPH (U of Chicago)
- Mark Cohen, PhD (ACS)
- Norbert Goldfield, MD (3M)
- Nancy Garrett, PhD (Hennepin County)
- Atul Grover, MD, PhD (AAMC)
- David Hopkins, PhD (PBGH)
- Dionne Jimenez, MPP (SEIU)
- Steven Lipstein, MHA (BJC)
- Eugene Nuccio, PhD (U of Colorado)
- Sean O'Brien, PhD (Duke)
- Pam Owens, PhD (AHRQ)
- Ninez Ponce, MPP, PhD (UCLA)
- Thu Quach, PhD, MPH (Asian Health)
- Tia Goss Sawhney, DrPH, FSA (Illinois)
- Nancy Sugg, MD, MPH (Harborview)
- Rachel Werner, MD, PhD (Penn)

At Least Two Divergent Views

- Adjusting for sociodemographic factors will mask disparities

- Adjusting for sociodemographic factors is necessary to avoid making incorrect inferences in the context of comparative performance assessment

Many factors lead to outcomes

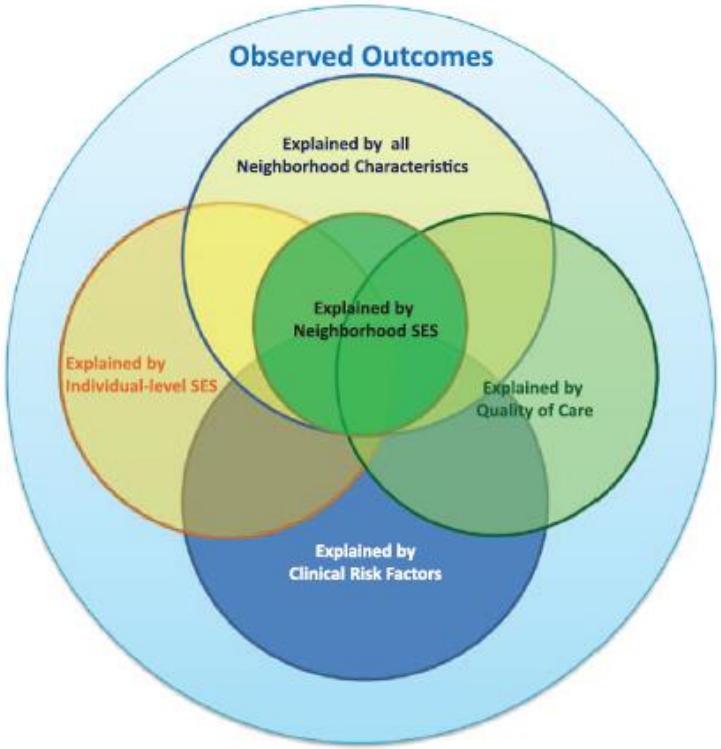
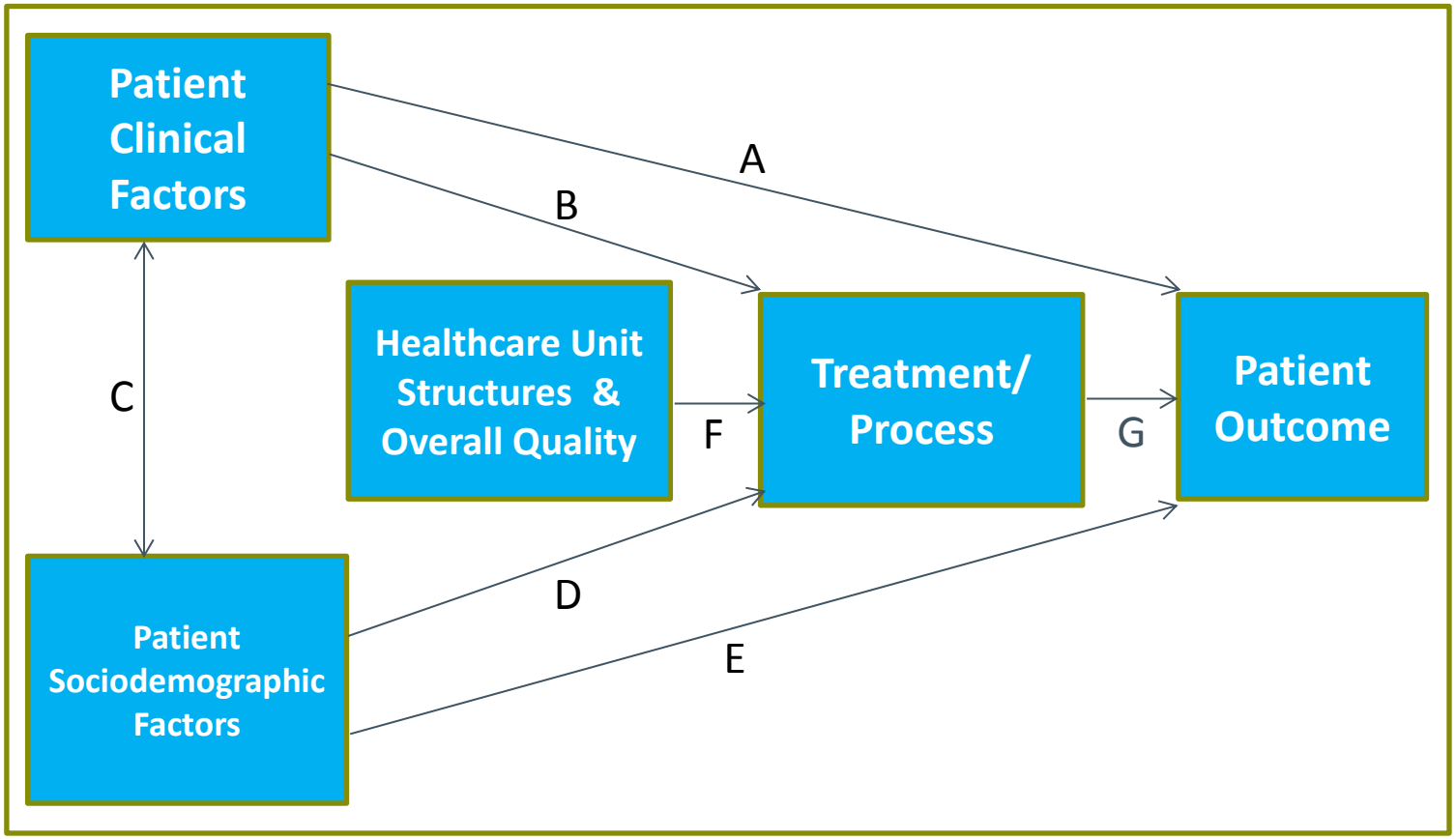


Figure 2. Proposed model for contribution of individual-level and neighborhood factors in disease outcomes. SES indicates socioeconomic status.

Bikdeli, B, et al, Place of residence and outcomes of patients with heart failure: Analysis from the telemonitoring to Improve heart failure outcomes trial. *Circulation – Carduivascular Quality and Outcomes*, 2014, ePub, August 6

Causal Paths



Oppose Adjustment for Sociodemographic Factors

- Some providers may deliver worse quality care to disadvantaged patients
- Adjustment could make meaningful differences in quality disappear
- Worse outcomes could be expected
  - No expectation to improve
  - Implies or sets a different standard
- Lack of adequate data for SDS adjustment
- Prefer payment approach to help safety net

Support Adjustment for Sociodemographic Factors

- Risk adjustment allows for comparative performance
- A performance score alone (whether or not adjusted for sociodemographic factors) cannot identify disparities.
- Hospitals caring for the disadvantaged are already being penalized.
- No evidence that disparities would be reduced through further negative financial incentives.
- Lack of adjustment would continue to create a disincentive to care for the poor.

NQF Risk Adjustment and SES Expert Panel: Key Points

- Each measure must be assessed individually to determine if SDS adjustment appropriate.
- Not all outcomes should be adjusted for SDS factors (e.g., central line infection would not be adjusted)
  - Need conceptual basis (logical rationale, theory) and empirical evidence
- The recommendations apply to any level of analysis including health plans, facilities, and individual clinicians.

Guidelines for Selecting Risk Factors

- ✓ Clinical/conceptual relationship with the outcome of interest
- ✓ Empirical association with the outcome of interest
- ✓ Variation in prevalence of the factor across the measured entities
- ✓ Present at the start of care
- ✓ Is not an indicator or characteristic of the care provided (e.g., treatments, expertise of staff)
- ✓ Resistant to manipulation or gaming
- ✓ Accurate data that can be reliably and feasibly captured
- ✓ Contribution of unique variation in the outcome (i.e., not redundant)
- ✓ Potentially, improvement of the risk model (e.g., risk model metrics of discrimination, calibration)
- ✓ Potentially, face validity and acceptability

Final NQF Recommendations (1)

- NQF will conduct a two-year trial period comparing SDS-adjusted and non-SDS adjusted (clinically adjusted only) prior to a permanent change in NQF policy.
- During the trial period if SDS adjustment is determined to be appropriate for a given measure, NQF will endorse one measure with specifications to compute:
  - SDS-adjusted measure
  - Non-SDS version of the measure (clinically adjusted only)
  - Stratification of the non-SDS-adjusted version

Final NQF Recommendations (2)

- NQF will convene a new NQF Standing Disparities Committee to monitor implementation of the revised policy as well as ensure continuing attention to disparities
- NQF and others such as CMS, ONC, and AHRQ should develop strategies to identify a standard set of sociodemographic variables (patient and community-level) to be collected and made available for performance measurement and identifying disparities.

Trial Period: Evaluation of SDS-Adjusted Measures

- CMS has committed to working with NQF to identify appropriate measures for consideration
- Key questions:
  - Do SDS factors have a significant effect?
  - What measures demonstrate differences for certain sub-groups?
  - If a strong conceptual relationship exists, does the analysis with specific SDS variables demonstrate an empirical relationship between those variables and performance?
  - What critical data gaps were identified for SDS variables?
  - Are endorsed SDS-adjusted measures recommended or implemented in public reporting and pay-for-performance programs?

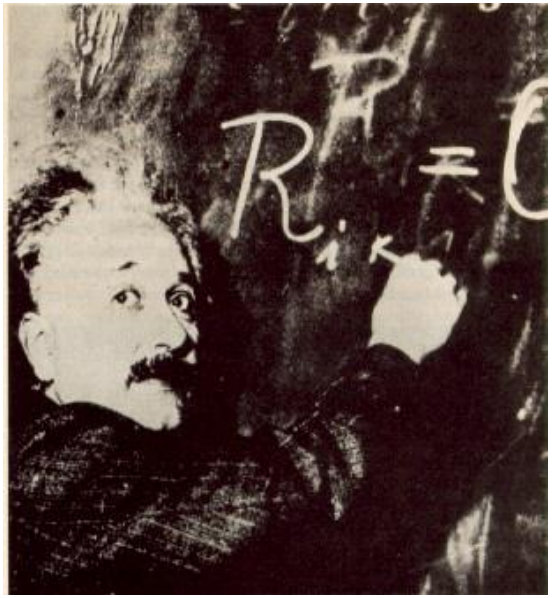
Longer Term Considerations

- If SDS-adjusted measures are used:
  - How do healthcare entities react to SDS-adjusted scores and stratified data for improvement?
  - How do purchasers and payers use SDS-adjusted scores for rewards and penalties?
  - Do the SDS measures and stratified results have an impact on disparities?
- These longer-term issues will be tracked by the Disparities Standing Committee.

The Measurement Imperative

Not everything that counts can be counted,
and not everything that can be counted counts

~Albert Einstein



But…..

You can't improve what you don't measure

~ W. Edwards Deming

Discussion

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