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Research Article

Risk Adjustment with Social Determinants of Health and Implications for Federally Qualified Health Centers under the Affordable Care Act

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Abstract

Adjustments for the underlying differences in risks among patients in payment approaches has been widely used and accepted; yet current risk adjustment approaches are limited because they do not account for the various social determinants of health (SDH) that can also influence health outcomes. This can have implications for providers serving disadvantaged populations. This article discusses why the inclusion of SDH in the formulas for risk adjustment is important for federally qualified health centers (FQHCs) under the Patient Protection and Affordable Care Act (ACA) and recommends ways in which FQHCs can be leaders in informing payment reform policies.

Policy Context

The National Quality Forum (NQF) conducts evidence-based reviews and endorsements of standards for performance in health care that inform provider payments (National Quality Forum 2014a). The Department of Health and Human Services' Centers for Medicare and Medicaid Services (CMS), which is a dominant player in how hospitals and providers are reimbursed for qual-

ity, has in the past heavily considered NQF-endorsed measures of quality. Risk adjustment is a technique used to account for differences in patient health status and clinical factors (e.g., severity of illness and comorbidities) that are present at the start of care. Higher risk is associated with higher cost and has been operationalized through the use of risk models that rely on age, sex, and diagnostic codes. Adjustments for the underlying differences in risks among patients in payment approaches has been widely used and accepted (Centers for Medicare and Medicaid Services 2014).

In March 2014, however, an NQF expert panel released a controversial report that recommended including various other socioeconomic and other demographic factors that can also influence health outcomes, and that are not accounted for by the current measures of age, sex, and comorbidities, as risk adjusters for measuring provider performance in delivering quality care. While the NQF board of directors did not immediately adopt the recommendations, they did endorse the need for a robust trial to investigate the quality and payment equity implications of the expert panel's recommendations (National Quality Forum 2014b). This policy note discusses why the method of risk adjustment is important for federally qualified health centers (FQHCs) under the Patient Protection and Affordable Care Act (ACA) and recommends ways in which FQHCs can be leaders in informing policy during this trial period.

Social Determinants of Health as a Risk Adjuster

Critics of current risk adjustment models recommend the development and use of new measures that include nonclinical factors (Rosen et al. 2003; Yi and Laurent 2010), including social determinants of health (SDH). SDH consist of a wide array of social and economic factors, such as low income, lack of health insurance, low health literacy, and language barriers, (National Association of Community Health Centers (NACHC) 2012a), which can have a tremendous impact on individual and population health outcomes, as well as health care costs (Ghosh 2003). Without adjustment for SDH, the current method of risk adjustment can affect disparities in the following ways: 1) indirectly encouraging providers to avoid serving disadvantaged populations because they are afraid of being labeled a "poor performer," 2) encouraging consumers and payers

to avoid providers who serve disadvantaged populations because they are perceived as "poor performers," and 3) unintentionally penalizing safety-net providers serving disadvantaged patients as these patients are less likely to perform as well given the underlying social penalties (e.g., lower income, limited English proficiency [LEP]) that affect their access, utilization, and quality.

The issue of adequate adjustments that can capture the different dimensions of risk is critical for FQHCs in particular as they would otherwise be penalized given that the vast majority of their patients have a greater burden of social factors that affect their health care access, utilization, and quality of care. FQHCs that serve predominantly minority populations also attract patients with a greater need for cultural and linguistic services that address SDH. According to the 2012 Uniform Data System Report, FQHCs serve over 21 million patients annually. Sixty-two percent of patients are racial/ethnic minorities, 23% have LEP, 93% live at or below 200% federal poverty level (FPL), and 36% are uninsured (Health Resources & Services Administration 2012).

Risk Adjustment, Federally Qualified Health Centers, and the Affordable Care Act

With the implementation of the ACA in 2014, there is an even greater need for health care providers, given the expanded care to previously uninsured populations. Under the ACA, many low-income individuals who are currently uninsured will be provided coverage through Medicaid expansion or through subsidies under the new Health Insurance Marketplaces. As FQHCs will continue to serve a disproportionately high number of populations that suffer health disparities, a key policy concern is ensuring that FQHCs will be equitably reimbursed under the ACA, since a majority of those qualifying for these new programs will continue to be the same populations at higher risk.

Since 2000, FQHCs have been paid through a Prospective Payment System (PPS) under the Medicare, Medicaid, and State Children's Health Insurance Program (SCHIP) Benefits Improvement and Protection Act (BIPA)[1], which requires states to reimburse FQHCs at a *minimum* rate. This rate takes into consideration some of the enabling services that FQHCs provide to address the SDH profile of their patients. Enabling services are defined as "non-clinical services that are specifically linked to a medical en-

counter or provision of medical services that aim to increase access to health care, and to improve health outcomes" (Medical Group Management Association 2000). As an important provider of care to racial/ethnic minority populations, FQHCs provide enabling services that are directly essential to overcoming many of the SDH-related barriers encountered by these low-income individuals. Through such services, patients are able to receive timely preventive care that can then help them avoid hospitalizations and other high-cost health care events (Rothkopf et al. 2011).

However, FQHC reimbursement methods appear to be different for patients covered through the Health Insurance Marketplaces compared to those covered through the Medicaid expansion. FQHCs will be paid by Qualified Health Plans (QHPs) that contract with the marketplace, but if the social complexity of the patients and the enabling services needed by the newly insured subsidy populations are not factored into the reimbursement formula, the reimbursements FQHCs will receive from QHPs will likely be insufficient to cover the actual costs of quality care. These disparate reimbursement mechanisms could impact the financial viability of FQHCs. Thus, a prominent policy question is whether reimbursement methodologies used by the Health Insurance Marketplace adequately compensate for the high numbers of SDH-vulnerable patients whom FQHCs serve (National Association of Community Health Centers (NACHC) 2012b). Otherwise, FQHCs may be underpaid for their services, risking their financial viability and potentially impacting their ability to serve more patients in the Marketplace and those with other payment sources.

Thus, if risk adjustment methods are to truly "level the playing field," they must include SDH, such as LEP and poverty, to ensure fair evaluation of provider performance, particularly for those facilities that provide care for disadvantaged populations. This is because the effect of many of these factors is beyond the control and responsibility of the health care system and should include social services, labor, housing, and transportation. The NQF report describes methods of risk adjustment that can be accomplished through the stratification of these factors and/or inclusion of these factors as risk adjusters in the modeling. However, there is very little data to date that demonstrates the application of SDH in real-world settings and, in particular, in safety-net settings that deliver primary and preventive care to vulnerable populations.

Real World Example of Risk Adjustment for Asian Americans, Native Hawaiians, and Other Pacific Islanders: A Proof-of-Concept

Asian Health Services (AHS) received funding from The California Endowment to work in collaboration with actuarial and other health economists to explore the feasibility of integrating FQHC data for risk adjustment models with SDH factors. AHS is a FQHC in Alameda County, California, serving more than 24,000 patients. As a national model for culturally and linguistically competent care among community health centers, AHS provides services in English and twelve different Asian languages, including Cantonese, Mandarin, Vietnamese, Korean, Tagalog, Mongolian, Mien, Lao, Khmer (Cambodian), Hmong, Karen, and Burmese. Over seventy-five percent of the AHS patient population fall into the LEP category, and a vast majority live at or below 200% of the FPL. Both LEP and poverty indicators were available at the patient level in AHS's encounter database and thus were selected as SDH factors to include in risk adjustment models.

Using the Chronic Illness and Disability Payment System (CDPS) (University of California San Diego (UCSD) 2012), a risk adjustment software program (available at: http://cdps.ucsd.edu), AHS examined the inclusion of LEP and poverty through stratification and risk adjusters in the modeling. For the stratification approach, the LEP and non-LEP groups were analyzed separately, and each was compared to a standard population (i.e., the national Medicaid population). For the approach in which LEP status was added as a risk adjuster, the statistical model was conducted in such a way that the LEP was compared directly to the non-LEP as a comparison group. Similar approaches were taken with poverty status (≤100% federal poverty level (FPL), 101-200% FPL, 151-200% FPL; > 200% FPL). The analytic sample consisted of 16,909 members who were enrolled for over six months (per year) in one health plan membership group during the time period of 2011–12.

Preliminary findings showed that inclusion of LEP and poverty status in risk adjustment changes the patient risk scores (where a higher risk score signifies a sicker population) in a statistically significant way. For example, the LEP patient risk score is lower than the non-LEP patient risk score as well as that of the national bench-

mark (the national Medicaid population). This is unexpected, and very likely due to the enabling services AHS provides, specifically language interpretation that addresses the LEP barrier. For poverty status, the results are more mixed, with some of the disabled and elderly having higher risks than the national benchmark comparison, which is the national Medicaid population with similar FPL cutoffs. Interestingly, the lowest income group (≤100% FPL) has the lowest risk scores among adult patients at AHS, which may suggest that this group may be receiving a higher volume and intensity of enabling services (e.g., health insurance counseling/navigation). These findings warrant further investigation, particularly given the limited sample size, the need to account for the contribution of enabling services (e.g., language interpretation) provided by FQHCs to address LEP, and the need to address data gaps. Furthermore, these findings are based on AHS patient data and may not be representative of other Asian American, Native Hawaiian, and Other Pacific Islander patients across the nation. This proof-of-concept study showed the value of using SDH data from FQHCs and other sources for risk adjustment modeling. Overall, these findings underscore the importance and feasibility of the inclusion of these factors in risk adjustment, while highlighting the need for collecting enabling services data to account for built-in services at safety-net providers to address SDH.

Authors' Recommendations

The information presented in this report indicates that this an unprecedented point in time for FQHCs serving a Health Insurance Marketplace population under the ACA to explore ways to show the advantage for and necessity of adjusting for SDH. The summary results shown here also emphasize the necessity of enhancing data collection on patients to capture SDH.

As noted, the NQF board of directors has approved a trial period to inform lifting their restriction on sociodemographic adjustment. Thus, we recommend several ways in which FQHCs can be leaders in informing policy during this trial period:

- FQHCs should consult the NQF expert panel report as a resource for risk adjustment strategies. The report also made specific recommendations for operationalizing potential sociodemographic adjustment, including guidelines for selecting risk factors.

- Data quality and availability are critical to these discussions. Therefore, it is imperative that FQHCs are aware that the recommended approach to include SDH in risk adjustment should not be hindered by the feasibility of data collection.
- That said, often the limiting step to operationalizing SDH risk adjustment is the available data from patient records. As demonstrated by AHS, foresight enabled the collection of key data elements that affect Asian American, Native Hawaiian, and other Pacific Islander patients, such as LEP and poverty. Thus, these data are available to be entered and explored in risk adjustment models, and ensuring the consistent collection of these variables makes these various risk adjustments with SDH possible.
- SDH factors could also be community-level data, such as the percent of adults with less than a high school education in a patient's zip code. To facilitate a linkage with area-level variables, FQHCs should routinely ensure populating the address and zip code fields to geocode data to other data sources, such as the U.S. Census and the American Community Survey.
- While there are no clear guidelines from the NQF report on how to incorporate enabling services into risk adjustment models (as demonstrated in the AHS project), enabling services, by definition, are excellent indicators of the more salient SDH for the populations served by that agency and would be indicated in models that include SDH adjustment. FQHCs should ensure adequate documentation/coding of these services as part of their data collection system.
- Some emerging efforts by the National Association of Community Health Centers (NACHC), the Association of Asian Pacific Community Health Organizations (AAPCHO), and other partners are underway to expand the collection of SDH in the electronic health records system (National Association of Community Health Center 2013). Sharing risk adjustment practices with this effort would enhance the knowledge base.

In sum, SDH risk adjustment has financial sustainability implications for FQHCs and the quality of care delivered to their patients, many of whom face a host of social barriers. Our AHS work, along with the growing body of literature, has opened the dialogue

for operationalizing an expanded risk adjustment approach. Data collection and policy engagement of FQHCs is essential to build the evidence base needed to improve equity and provide stronger economic incentives for FQHCs to be able to care for health disparities populations and offer the enabling services required to provide quality care to their patient populations.

Notes

1. A section in the Medicare, Medicaid, and State Children's Health Insurance Program (SCHIP) Benefits Improvement and Protection Act of 2000 (BIPA) requires Medicaid programs to make payments for FQHCs and rural health clinic (RHC) services in an amount calculated on a per-visit basis that is equal to the reasonable cost of such services documented for a baseline period, with certain adjustments, or to use an alternative payment methodology to pay for FQHC and RHC services.

References

Centers for Medicare and Medicaid Services. 2014. "Medicare Advantage Rates and Statistics." http://www.cms.hhs.gov/MedicareAdvtgSpecRateStats/ (accessed October 15, 2014).

Ghosh, C. 2003. "Healthy People 2010 and Asian Americans/Pacific Islanders: Defining a Baseline of Information." American Journal of Public Health 93(12): 2093–8.

Health Resources & Services Administration. 2011. "National Uniform Data System Report." http://bphc.hrsa.gov/healthcenterdatastatistics/ (accessed October 15, 2014).

Medical Group Management Association Center. 2000. A Validation Study of the Methodology Used to Assign a Coding Structure and Relative Value Units to Currently Non-billable Services. Washington, DC: National Association of Community Health Centers.

National Association of Community Health Centers. 2013. *Organizations Launch Kresge-Funded Project to Assess and Address Patient Risk.* http://www.nachc.com/pressrelease-detail.cfm?pressreleaseID=887.

—. 2012a. *Issue Brief: Powering Healthier Communities: Community Health Centers Address the Social Determinants of Health.* http://www.nachc.com/client/documents/SDOH1.pdf (Accessed October 15, 2014).

—. 2012b. "Letter to Centers for Medicare and Medicaid Services (CMS)-9964-P: Proposed Rule, Patient Protection and Affordable Care Act; HHS Notice of Benefit and Payment Parameters for 2014." https://www.nachc.com/client/documents/12.12%20Comments%20on%20Benefit%20and%20Payment%20Parameters%20for%202014%20(Risk%20Adjustment).pdf (accessed October 15, 2014).

National Quality Forum. 2014a. "National Quality Forum." http://www.qualityforum.org/Home.aspx. (accessed October 15, 2014).

—. 2014b. "Risk Adjustment for Socioeconomic Status or Other Sociodemographic Factors." http://www.qualityforum.org/risk_adjustment_ses.aspx (accessed October 15, 2014).

Rosen, A. K., Reid, R., Broemeling, A. M., and C. C. Rakovski. 2003. "Applying a Risk-Adjustment Framework to Primary Care: Can We Improve on Existing Measures?" *Annals of Family Medicine* 1(1): 44–51.

Rothkopf, J., Brookler, K., Wadhwa, S., and M. Sajovetz. 2011. "Medicaid Patients Seen at Federally Qualified Health Centers Use Hospital Services Less Than Those Seen by Private Providers." *Health Affairs (Millwood)* 30(7): 1335–42.

University of California San Diego. 2012. *Chronic Illness and Disability Payment System (CDPS), Version 6.0*. http://cdps.ucsd.edu (accessed October 15, 2014).

Yi, R. and D. Laurent. 2010. "What Kind of Risk Adjustment Systems Are Necessary for Health Insurance Exchanges?" in *Milliman Health Care Reform Briefing Paper*, ed. I. Milliman http://www.milliman.com/uploadedFiles/insight/healthreform/what-kind-risk-adjustment.pdf (accessed October 20, 2014).

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