



Via Electronic Submission (ASPEImpactStudy@hhs.gov)  
November 16<sup>th</sup>, 2018  
Brenda Destro  
Deputy Assistant Secretary for Planning and Evaluation  
Hubert H. Humphrey Building  
200 Independence Avenue, S.W., Room 415-F  
Washington, D.C. 20201

**RE: Assistant Secretary for Planning and Evaluation (ASPE) Request for Information:  
IMPACT ACT Research Study: Provider and Health Plan Approaches to Improve Care  
for Medicare Beneficiaries with Social Risk Factors**

Dear Ms. Destro:

On behalf of the Virginia Commonwealth University Health System Authority (VCU Health System), I appreciate the opportunity to respond to ASPE's above-referenced request for information.

VCU Health System is a public body corporate, political subdivision, and instrumentality of the Commonwealth of Virginia. Our missions include, in part, providing indigent care for the citizens of Virginia, serving as an academic medical center, and acting as the principal training hospital for health care profession students of Virginia Commonwealth University. Within the overall system there are several hospitals: VCU Health System, also known as VCU Medical Center/MCV Hospitals, an acute care hospital and Level 1 Trauma Center located in the urban center of Richmond, Virginia; Children's Hospital of Richmond at VCU – Brook Road, a pediatric specialty hospital with long-term care beds and various outpatient clinics providing physical, occupational, and speech therapy; and Community Memorial Hospital, located in rural South Hill, Virginia with acute and long-term care beds.

Additionally, the system includes a faculty physician group (MCV Physicians) and a Managed Care Organization, Virginia Premier Health Plan, which currently covers Medicaid, Medicare and dual eligible lives in the Commonwealth of Virginia. As a quaternary care academic medical center, we provide care to high acuity patients with the most complex needs while serving as the largest safety net hospital in the Commonwealth.

As a safety net hospital, VCU Health System is acutely aware of the relationship between socioeconomic status (SES) factors and health outcomes. This comment includes a review of the activities VCU Health System has undertaken to incorporate SES factors into our delivery of services, VCU Health System's collection and use of data to address patients' SES factors, and ideas that may be useful as ASPE considers how the Medicare program can better account for SES factors in its value-based care programs.

### **Incorporating SES Factors into Delivery of Service**

The request for information asks providers to share how they target services to Medicare beneficiaries with social risk factors. Several VCU Health System initiatives meet this description. These initiatives are detailed below:

## *Accountable Health Communities*

VCU Health System's participation in the Center for Medicare and Medicaid Innovation's (CMMI) Accountable Health Communities (AHC) model is our largest effort to incorporate SES factors in our delivery of services to date. According to CMMI, "the Accountable Health Communities Model addresses a critical gap between clinical care and community services in the current health care delivery system by testing whether systematically identifying and addressing the health-related social needs of Medicare and Medicaid beneficiaries' through screening, referral, and community navigation services will impact health care costs and reduce health care utilization."<sup>1</sup>

Specifically, the model requires providers to screen Medicare and Medicaid beneficiaries for five health-related social needs:

1. Food insecurity;
2. Homelessness;
3. Difficulty paying utility bills;
4. Transportation needs; and
5. Interpersonal violence

Beneficiaries who screen positive for one or more health-related social need receive a list of community resources that are filtered by their needs and zip codes. Beneficiaries who screen positive for one or more health-related social need and have visited the emergency department in the twelve months preceding the survey also receive a list of community resources. In addition, these patients are referred to a "navigator" who provides one-on-one assistance to the beneficiary for up to a year to help that individual resolve his or her health-related social needs.

VCU Health System student volunteers began screening and referring eligible patients for navigation services in August 2018. Screenings are taking place in seven locations throughout the health system.<sup>2</sup> To date, 2550 patients have received an offer to be screened, and 580 patients have been referred for navigation services. While it is too early to determine with statistical certainty if the model has reduced health care expenditures, we are confident that connecting emergency department heavy utilizers with one or more SES factors to relevant community resources will improve their health outcomes while reducing costs.

## *Complex Care Clinic*

VCU Health System established the Complex Care Clinic in 2011 to care for its sickest and costliest patients. Eligible patients must meet one or more of the following clinical criteria: "(1) have multiple chronic conditions; experience complications from diabetes; receive a referral from a community primary care provider; or (4) have frequent emergency department visits or hospitalizations during a single year."<sup>3</sup> The eligibility criteria also accounts for SES factors, namely income and insurance status. Eligibility for the clinic is limited to uninsured or publically insured individuals with incomes below 100 percent of the Federal Poverty Line.<sup>4</sup> While the clinic does not exclusively serve Medicare beneficiaries, many of its patients are dually eligible for Medicare and Medicaid.

<sup>1</sup> Center for Medicare and Medicaid Innovation, "Accountable Health Communities Mode," <https://innovation.cms.gov/initiatives/ahcm/>

<sup>2</sup> Accountable Health Communities are taking place in the emergency, labor and delivery, and inpatient psychiatry departments as well as four outpatient clinics.

<sup>3</sup> DePuccio, M., Farhat, N., Boone, E., Piri, S., Hall, L. (2018). Impact of an Interdisciplinary Care Management Program on Hospital Utilization and Costs. Short Report. Virginia Commonwealth University Office of Health Innovation, pp. 1-18.

<sup>4</sup> DePuccio et al.

The Complex Care Clinic utilizes an interdisciplinary care approach that considers the SES factors of its patients. In addition to providing primary care services, the clinic employs nurses and case managers to provide patients mental health case management services as well as encouragement to access community resources that may alleviate their health-related social needs.<sup>5</sup>

This model has shown promising results. In its first year, researchers found a 44 percent reduction in inpatient admissions, a 38 percent decrease in emergency department utilization, and a 49 percent reduction in total hospital costs among the clinic's patients.<sup>6</sup> More recently, VCU researchers estimated that the clinic saved VCU Health System, on average, \$5,253 per patient per year.<sup>7</sup> They also reported a 27 percent decrease in inpatient admissions, a 40.8 percent decrease in inpatient length of stay, a 15.6 percent decrease in emergency department visits, and a 45.3 percent decrease in outpatient visits outside of the Complex Care Clinic.

Finally, the Complex Care Clinic integrated the Accountable Health Communities initiative into its care model in August 2018. This integration will reinforce the clinic's focus on SES factors in its delivery of service.

#### *The Center for Advanced Care Management*

The Center for Advanced Health Management (CAHM) also serves medically complex patients, including many Medicare, Medicaid, and dual eligible beneficiaries. In addition to providing facility-based primary care, CAHM offers intensive, home- and office-based case management services for patients with social needs.

CAHM's focus on case management and whole-person care has had a significant positive impact on patients since the facility opened in 2014. One anecdote is particularly telling. A patient who routinely visited the Emergency Department arrived at her first CAHM visit with over 40 prescribed medications. The CAHM care team reviewed her needs and was able to consolidate this regimen into just eight medications.<sup>8</sup>

CAHM is also a base for VCU Health System's participation in CMMI's Independence at Home (IAH) initiative. Through this initiative, CAHM clinicians make house calls for patients who are less mobile, have post-acute or post-ambulatory needs, or who otherwise cannot transport themselves to the office. The Mid-Atlantic Consortium, the IAH practice group in which CAHM participates, achieved per beneficiary per month expenditures 12 percent below CMS's target in its most recent performance year for which data is available.<sup>9</sup>

CAHM has also integrated the Accountable Health Communities initiative into its care model.

#### *Virginia Coordinated Care Program*

VCU Health System established the Virginia Coordinated Care (VCC) program in November 2000 to deliver care to uninsured adults living in the Richmond metropolitan area.<sup>10</sup> Under the VCC model, eligible individuals are assigned to a primary care provider in their community. VCU Health System reimburses these providers for providing service to VCC enrollees.

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<sup>5</sup> Ibid.

<sup>6</sup> Unpublished data analysis.

<sup>7</sup> Ibid.

<sup>8</sup> "Progress Notes," *Virginia Commonwealth University Department of Internal Medicine*, (2015)

<sup>9</sup> "Fact Sheet: Independence at Home Demonstration Corrected Performance Year 2 Results," *Centers for Medicare & Medicaid Services*, (2018).

<sup>10</sup> Bradley, C., Gandhi, S., Neumark, D., Garland, S., Retchin, S. "Lessons for Coverage Expansion: A Virginia Primary Care Program for the Uninsured Reduced Utilization and Cut Costs," *Health Affairs*, 31, No. 2 (2012): pp. 350-359.

Patients must re-enroll every year to remain in the program. To be eligible, an individual must be uninsured, have an income at or below 200 percent of the Federal Poverty Line, and be a U.S. citizen residing in VCU Health System's primary service area. The program serves roughly 10,000 individuals.

While the VCC program does not serve Medicare beneficiaries, our experience with it should be useful to ASPE because of its focus on low-income individuals. While VCC does not explicitly screen patients for SES factors other than insurance status and income, most of these individuals suffer from multiple chronic diseases and health-related social needs.

According to one study published in Health Affairs, the average total cost per year per VCC enrollee fell from \$8,899 to \$4,569 for individuals who remained in the program for three consecutive years.<sup>11</sup> Emergency Department utilization fell by 38 percent and inpatient hospitalizations fell by 45 percent. Critically, the data suggests that continuous enrollment leads to additional savings over time, suggesting that VCC and similar models are increasingly valuable in the long-run.

### **Challenges and Opportunities**

Despite VCU Health System's progress in caring for patients' social needs, significant challenges remain. This section identifies two major challenges and proposes ideas to address them.

#### *Systematic and Standardized Collection of SES Data*

Perhaps the most significant challenge to addressing patients' social needs is that there is no single systematic or standardized method to collect data on Medicare beneficiaries' SES factors. There is significant variation how providers screen for SES factors among, and even within hospitals. Moreover, there is no standard method for providers to enter and track that data. These overlapping challenges makes it difficult for providers to follow-up on patients' needs. They also makes it difficult for CMS to use SES data to inform policy and payment initiatives.

One solution is for CMS to encourage providers, perhaps via a value-based payment, to utilize a universal SES screening tool. CMS has already taken a step in that direction with the Accountable Health Communities model. AHC participants must use the same screening tool to collect data on five health-related social needs. The screening tool also includes optional questions for other social needs such as unemployment and education level. The Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences (PRAPARE) survey is another potential option for a universal SES screening tool.

Providers must also be able to systematically enter and track SES data in addition to collecting it. One option is to use ICD-10 Z-codes. These codes, which cover diagnoses that influence health status and contact with health services, are available but not widely used. Using Z-codes has several advantages. First, they are standardized. Second, they are available as data fields in all major electronic health record platforms. Finally, they can be regularly updated according to the internationally recognized ICD revision process.

#### *Risk-Adjustment for Hospital Value-Based Care Programs*

Currently, CMS generally does not account for SES factors in its hospital value-based care programs. The Hospital Readmission Reduction Program (HRRP) is an exception – Congress required CMS to begin adjusting hospitals' performance scores to account for the proportion of dual eligible patients served during the performance year. While this proxy measure is a

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<sup>11</sup> Bradley et al.

useful starting point, there are several limitations. For instance, low Medicaid participation rates mean many individuals who should be accounted for in this proxy measure are excluded. Moreover, Medicaid financial eligibility requirements vary by state. An individual dealing with multiple SES factors may not be a dual eligible if he or she lives in a state with particularly restrictive eligibility criteria.

One solution is to consider community-wide SES data instead of relying solely on individual assessment when risk-adjusting hospital value-based care program performance scores. Research conducted at Virginia Commonwealth University suggests this is a feasible approach. In October 2018, VCU's Center on Society and Health published a report, "Uneven Opportunities: How Conditions for Wellness Vary Across the Metropolitan Washington Region." The report introduces the idea of a Healthy Place Index (HPI). The HPI is a weighted, snapshot measure of 64 SES indicators in a census tract that, when aggregated, are associated with life expectancy.<sup>12</sup>

Researchers categorized 48 SES indicators into six domains: air quality, economic/other household resources, education, health care access, housing, and transportation. They also categorized 16 additional SES indicators regarding race, ethnicity, and immigrant status into a seventh domain.

They ran the model twice, once with the 16 race, ethnicity, and immigrant status indicators and once without them. Table 6, taken from the report's technical appendix, shows the results.<sup>13</sup>

Table 6. Change in the Metropolitan Washington Healthy Places Index (HPI) domain weights with and without the race/ethnicity domain in the model.

Domain	Domain weight as a % of HPI (race/ethnicity domain NOT in the model)	Domain weight as a % of HPI (race/ethnicity domain in the model) <sup>1</sup>	Absolute change in domain weight	% change in domain weight
Transportation	10.0%	1.5%	-8.5%	-85.0%
Housing	16.1%	5.3%	-10.8%	-67.1%
Economic/Other Household Resources	25.7%	13.4%	-12.3%	-47.9%
Education	33.8%	21.5%	-12.3%	-36.4%
Air Quality	8.8%	5.7%	-3.1%	-35.2%
Health Care Access	5.6%	5.5%	-0.1%	-1.8%
Race/Ethnicity	-	47.0%		

<sup>1</sup>The weights in this column reflect changes to the final HPI weights in each domain with the addition of the race/ethnicity domain in the model. These were computed to show the variation when race/ethnicity was added to the analysis (highlighting the degree to which differential exposures experienced by racial and ethnic groups and immigrants impact census tract variations in life expectancy).

Crucially, the researchers found that the overall model is highly correlated with life expectancy, ( $r=0.77$ ;  $r^2=0.59$ ), indicating that the HPI index is a strong predictor of life expectancy. This study is important because it demonstrates that a model that measures community-wide SES factors instead of individual SES factors can be a strong predictor of a physical health outcome. Notably, even better educated, more affluent people living in areas with a low HPI score experienced reduced longevity compared to people with similar characteristics living in areas with high HPI scores.

<sup>12</sup> Woolf, S., Chapman, D., Hill, L., Schoemaker, H., Wheeler, D., Snellings, L., Lee, J. "Uneven Opportunities: How Conditions for Wellness Vary Across the Metropolitan Washington Region," Virginia Commonwealth University Center on Society and Health, (2018).

<sup>13</sup> Chapman, D., Wheeler, D., Hill, L., Woolf, S. "Uneven Opportunities: Technical Appendix: The Metropolitan Washington Healthy Places Index (HPI) Methods and Data," Virginia Commonwealth University Center on Society and Health; Virginia Commonwealth University Department of Biostatistics, (2018).

A performance score adjustment based on an index of community-wide SES factors may be better able to strike the balance between accurately accounting for social risk factors in value-based payment programs without increasing administrative burden. A community-wide measure such as the HPI index would not exclude individuals nor would it be as susceptible to state policy decisions. Meanwhile, data on many community-wide SES factors, including most of the indicators included in the HPI index, are publically available and easily accessible. A key challenge to adjusting value-based performance scores on individually-based factors is that either the individual or the hospital has to take action. As discussed above, there are many challenges in collecting and reporting social risk data in a routine and systematic fashion. Using an index of aggregated, community-wide data can overcome this challenge.

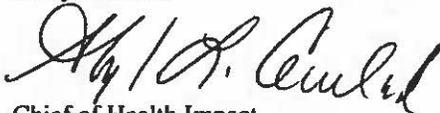
### **Recommendations**

Thank you again for the opportunity to respond to this request for information. We are pleased to submit the following two recommendations for ASPE's consideration:

1. CMS should encourage, via value-based payment, adoption of a single SES screening tool for Medicare beneficiaries. CMS should use these screening results to inform Z-code diagnoses, which in turn can be used for risk-adjustment in hospital value-based care programs.
2. CMS should risk-adjust hospitals' value-based care performance scores using a synthesis of community-wide and individual risk assessment data, such as the HPI index and Z-codes, instead of dual eligibility.

Please contact Karah Gunther, Director of Government Relations and Health Policy, at [klgunther@vcu.edu](mailto:klgunther@vcu.edu) or 804-828-6879 should you have any questions.

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