Business Health Care Group: Physician Value Study

The Business Health Care Group of (BHCG) commissioned the Physician Value Study v1.0 (PVS v1.0) in 2019 with the stated intent of evaluating the quality and cost-effectiveness of physicians in the Wisconsin health care marketplace. The focus of PVS v1.0 was the performance of primary care physicians in the state, assessing the available claims data for episodes of care managed by the PCPs to determine the degree of variance in the quality and cost-effectiveness of their patient encounters.

The study was performed on BHGC's behalf by GNS Healthcare (now Aitia), based in Somerville, MA. Aitia is a big data analytics firm using AI/machine learning algorithms to analyze large data sets to determine causal relationships. The data used for the PVS v1.0 came from WI's all payer claims database, the Wisconsin Health Information Organization (WHIO), constituting the largest and most robust dataset available in the state.

The PVS uses evidence-based medicine (EBM) compliance rates to assess physician quality and a very sophisticated machine learning protocol to assess cost-efficiency. The Aitia approach is able to use all patient information contained in the WHIO dataset (including demographics, comorbidities, disease burden, claims payer, etc.) to control for differences between patients, leaving the variation in outcomes that can attributed to physician performance. Payment rates in the data set are normalized, allowing the cost-efficiency measure to be a true depiction of effective use of resource and patient management rather than an assessment of contractual/mandated payment rates.

The PVS v1.0 found profound levels of variability in both quality and cost-efficiency of providers in the state. Building on the initial results, BHCG commissioned PVS 2.0 in 2021 to use multiple years of data and even more granular splits of physician performance to assist with the creation of actionable results at an individual physician level. Ten specialty procedures were also evaluated as part of v2.0 of the study. PVS v2.0 key observations included the following:

- There was almost no correlation between quality and cost-effectiveness of PCPs. There are high-quality doctors who are cost-effective and high-quality doctors who are cost-ineffective. The converse is true as well. So simply focusing on high-quality performance will not solve the prevailing cost problem
- If patients were seen by the PCPs performing above the median in cost-efficiency OR if PCPs in the 3rd and 4th quartiles would practice at the median level, the total cost of care for episodes of care managed by PCPs could be reduced by **40%**
- The total cost of care for the 10 measured specialty procedures could also be reduced substantially

- Thus, the development of health care solutions for patients should be optimized to create connections between high-value PCPs and the patients, along with the ability to refer care to the high-value specialists in the state.

The data from PVS v2.0 is available to health care provider systems for use in continuous improvement, to select health plans that are partially sponsoring the study and to other entities that are interested in collaborating with BHCG in driving forward this ground-breaking initiative that is changing the dialogue between the business community, the provider systems and other interested parties. The parameters of the study can be replicated in other geographies and can serve as a basis for substantial movement in value-based payment models, high-performance network creation and measurement approaches used to increase accountability at the health care provider level.

With the addition of data on the social determinants of health that are being brought into the WHIO dataset, BHCG believes that even more robust evaluation and study conclusions will be available upon completion of the next version of the study.