

Physician Practice Patterns

Health Services and Medical Management Division

February, 2010



Executive Summary

Recent legislation requires the Health Services Advisory Council (HSAC) to develop a methodology to notify physicians regarding their own practice patterns in services where there is high cost or high variability across providers. This monitoring and tracking shall be regarding practice patterns of physicians providing services to medical assistance, MinnesotaCare, and general assistance medical care enrollees under fee-for-service, managed care, and county-based purchasing. DHS is developing this capacity while ensuring that HSAC maintains its core function of evaluating and recommending to the Commissioner the most appropriate evidence based benefit policy for the Minnesota Health Care Program recipients.

Introduction

In the 2009 Minnesota legislative session, the following law was passed (Chapter 70, Article 5, Section 76):

Physician Practice Patterns: The Health Services Policy Committee shall monitor and track the practice patterns of physicians providing services to medical assistance, MinnesotaCare, and general assistance medical care enrollees under fee-for-service, managed care, and county-based purchasing. The committee shall focus on services or specialties for which there is a high variation in utilization across physicians, or which are associated with high medical costs. The commissioner, based upon the findings of the committee, shall regularly notify physicians whose practice patterns indicate higher than average utilization or costs. Managed care and county-based purchasing plans shall provide the committee with utilization and cost data necessary to implement this paragraph.

Body of Report

It is well documented that variation exists in utilization of medical care (Wennberg, 2003). To some extent, this variation reflects differences in illness. According to some researchers, however, most of the variation reflects differences in the intensity of practice (Sirovich 2006). This utilization variation can be characterized as supply sensitive or preference sensitive (Dartmouth Atlas, 2007). Preference sensitive care indicates that the patient (and family) choose one option over another equivalent option based on adequate information. As an example, the decision of lumpectomy vs. mastectomy for early stage breast cancer reflects a preference sensitive choice. Financial cost may be a determinant in this decision. Supply sensitive care reflects the supply of the service in the community. It is well documented that at a community level, varying levels of supply can be associated with varying levels of utilization (Wennberg, 2002). Variation also exists among institutions and individual providers.

One study that evaluated the quality and outcomes of care for almost one million Medicare enrollees found that patients in the highest-intensity regions spent more time in the hospital and had more frequent physician visits, specialist consultations, tests, and minor procedures, but their long-term mortality rates (after adjusting for baseline health status) were 2% to 5% higher than those in the lowest-intensity regions (Fisher 2003). Other patient-level outcomes, such as quality of care judged by clinical performance measures, and patient satisfaction with care were no better (and were sometimes worse) than in the lowest intensity regions (Fisher 2003-a). Over 600,000 Minnesotans, as a monthly average, receive health care through the state's publicly funded health care programs. Combined expenses for these programs amount to nearly seven billion dollars annually in federal and state expenses. Fee-for-service health care (excluding long term care and mental/ chemical health), administered by the Department of Human Services (DHS), accounts for about one quarter of the total cost and cover one third of the population during any given month. Claims data are collected for the fee-for-service population, while administrative data (service encounters without associated fee structures) are obtained from the managed care organizations that administer care for the remaining two thirds of the population.

Studies can be carried out using administrative databases derived from discharge coding information. Based on an abundance of published reports, use of administrative databases has become widely accepted for research purposes. These databases are advantageous because they contain information regarding the care for a very large number of patients.

Utilization of provider-specific data has been shown to be effective at changing professional practice, according to one systematic review of the literature (Jamtvedt, 2006). According to the review, the effects are usually small to moderate.

To facilitate the management of its fee-for-service care, DHS is currently developing more robust systems to track the utilization of high-cost, low-value, or highly-variable care in a number of areas, including topics in radiology utilization and Cesarean-section utilization. This information will be used by the Department to assist in the development of evidence-based medical policy for these services.

DHS has recently established a collaborative Perinatal Practices Advisory Group (PPAG) as a subcommittee of HSAC to improve perinatal outcomes. This group was formed following development of data evaluating variations in facility utilization of Cesarean Sections. Although variations were found among facility rates of C-section use, the analysis also highlighted the need for 1) collaborative discussion of practice patterns, 2) synergistic sharing to understand the drivers of successful organizational change among stakeholders, and 3) building momentum in the medical community regarding the transformation of clinical effectiveness knowledge into improved health care quality and value. This type of activity moves beyond measurement and accountability to the scaling and spread of effective interventions (Dougherty, 2009).

Two significant issues arise in the use of administrative databases: one is technical; the second relates to policy.

- Technical limitations in the quality of the available claims data include:
 - Coding is, at times, inexact as complete coding is not needed (or in some cases possible) for claims billing.
 - Since Medicaid recipients tend to pass in and out of the public program coverage, it may be difficult to assure that the total care received by any recipient over a given time period is captured.
 - Codes and fields must be understood regarding their use, the change in their use over time, and in how the data is entered. As an example, the use of a specific code may change over time in response to DHS instructions to providers. Understanding policy changes such as this is essential to the interpretation of the data.

Policy considerations are also significant. Data on utilization, coupled with quality measures inferred from that utilization, should be used to drive benefit policy. In this development, there are several important considerations:

- Data on physician practice patterns may be used to drive payment rates, facility status as a Center of Excellence, recertification in the Health Care Home program, etc. Appropriate quality of the analysis, as well as a reasonable expectation of the application of statistical validity, should be achieved. As examples, the Minnesota DHS may recommend a volume criterion for a procedure if there is scientific evidence that higher volume centers have improved outcomes compared to those institutions performing fewer procedures. The application of valid evidence to coverage policy allows for refinement of DHS coverage decisions. Even as these decisions are made, consideration to the level of evidence and quality of the research must be made. This role is shared by the benefit policy staff, HSAC, and the DHS medical director with the support of contracted services.
- In contrast, it may be inappropriate to segment providers by tiers without a statistically valid analysis of differences. A provider organization may rank lower than another and below a defined cut off due to random chance. This difference, although not statistically valid, could cause the organization to be placed in a lower payment rate tier. This may disadvantage provider groups with a higher proportion of complex patients (where the complexity cannot be captured by existing data sources); groups with one or more outliers (expensive patients needing complex interventions); or groups with smaller populations of enrollees (where sample size precludes statistically valid samples).

Application of evidence and statistical modeling to practice variation in this public evaluation should be part of a public conversation. Provider peer grouping being developed by the Minnesota Department of Health (MDH) and incentive payments via Bridges to Excellence are both examples of public discussions of the application of these analyses to benefit design. DHS has been and should continue to be a driver of this work, performing the analysis based on available data and applying the analysis to benefit design.

The use of DHS claims data should also be used to drive provider quality improvement processes. Developing “safe” structures to share comparative results without rigorous statistical analyses allows for a robust quality

improvement conversation. As an example, variations in trauma center use of computerized tomography (CT) to evaluate emergency presentation of head injury have potential, by the exposure of variation, to alter practice.

The continued development and reporting of practice variation for quality improvement purposes may be considered separately from public reporting and policy setting. DHS faces the challenge of appropriately placing our work into one of these categories. Major issues arise, including:

- The development of statistically valid (and hence equitable) models for policy discussions is most often complex and resource intensive. The effort and detail devoted to the Provider Peer Grouping portions of the 2008 Health Care Reform legislation are testimony to this complexity.
- The use of less rigorous analyses of quality on selected topics should continue, but is hampered by concerns about misinterpretation of trends, rates, etc. that are primarily designed to drive a provider conversation and quality improvement activities. Unlike other quality improvement arms of the health care system, DHS does not currently have the authority to hold analyses confidential as part of a quality improvement process. (This is, in part, because of the Department's historical role as a claims payer rather than a driver of quality.)
- The dependence on coding accuracy to understand services performed by providers and to create valid analysis in the Department.

Public interest in variation should be weighed against the benefits that arise from protected quality improvement activities during a project's life cycle. Neither option automatically achieves the best results in all circumstances. Creating an appropriate balance, while driving to greater public transparency, should be considered a main goal of this effort.

As utilization tracking systems are developed, the Department will gain the capacity to monitor utilization trends and to target services or specialties with high variation for further analysis. The Health Services Advisory Council may serve as a sounding board as new topics for analysis are generated, and will provide a forum for the public dissemination of reports summarizing variations in provider practice. The Department will also develop a mechanism to notify individual physicians regarding their practice patterns for quality improvement purposes.

Conclusions and Recommendations

DHS will continue to develop its capacity to track utilization of high-cost, low value, and/or highly-variable care. Topics for consideration will be brought to HSAC on a semi-annual basis, and summary results of these analyses will be shared with the Council at a public HSAC meeting before they are disseminated to the provider community for quality improvement purposes. As the goal remains improvement in quality and value, consideration must be given to the quality of data and the effect of data release on the provider community. These topics will be revisited periodically to assess the degree to which provider behavior changes over time.

- It is recommended that the Legislature provide the Department of Human Services with the authority to hold selected analyses as part of a quality improvement process and hence protected from public disclosure. Public reporting in aggregate during the process or with identified results upon completion could be seen as steps to encourage collaboration and insure transparency.

The Department has the opportunity, as a major payer of health care services in Minnesota, to leverage its relationships with the health care community to promote meaningful, collaborative dialogues regarding identified practice variation and translate them into improved health quality and value. These quality improvement results could be realized for patients of the Minnesota Health Care Programs (MHCP). Additionally, they would have the potential to be successfully integrated as a new standard of care throughout the health care delivery system in MN.

Bibliography

Dartmouth Atlas Project Topic Brief, "Preference-Sensitive Care." *The Dartmouth Atlas Project* 2007-01-15.
Dougherty D, Conway PH, "The "3T's" Road Map to Transform US Health Care." *JAMA*, 2008;299(19).

- Fisher ES, Wennberg DE, Stukel TA, et al, "The implications of regional variation in Medicare spending. Part 1: The content, quality and accessibility of care." *Annals of Internal Medicine* 2003; 138:273-87.
- Fisher ES-a, Wennberg DE, Stukel TA, et al, "The implications of regional variation in Medicare spending. Part 2: Health outcomes and satisfaction with care." *Annals of Internal Medicine* 2003; 138:288-98.
- Jamtvedt G, Young JM, Kristoffersen DT, et al. "Audit and feedback: effects on professional practice and health care outcomes." *Cochrane Database of Systematic Reviews* 2006, Issue 2. Art. No.: CD000259. DOI: 10.1002/14651858.CD000259.pub2.
- Sirovich BE, Gottlieb DJ, Welch HG, et al, "Regional variations in health care intensity and physician perception of quality of care." *Annals of Internal Medicine* 2006; 144: 641-649.
- Wennberg, JE, Fisher ES, Skinner JS. "Geography and the Debate Over Medicare Reform." *Health Affairs* 2002-02-13.
- Wennberg JE, Cooper MM. "The Dartmouth Atlas of Health Care 2003," Chicago: American Hospital Association; 2003.