

# **BENCHMARK STUDY**

*of the delegated/capitated health care  
delivery model in California*

## **Executive Summary**

*for the California Healthcare Foundation  
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Research conducted by

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## **EXECUTIVE SUMMARY**

Intelligent Healthcare LLC conducted an investigative Study to test the application of administrative data (medical claims, encounters, patient demographic and enrollment, pharmacy claims, and laboratory test results) to measure the quality of care provided by physicians. The Study collected data from large California-based medical groups and independent practice associations (“medical groups”) contracting with HMOs under delegated/capitated service and payment models. Physician service data was integrated with both health plan pharmacy data and reference laboratory data to create a statistically representative data set covering HMO enrollees who received care during calendar years 2000 and 2001. The Study was partially funded by a grant from the California Healthcare Foundation.

The Study sample was comprised of administrative data from 17 medical groups, which account for approximately 1.6 Million of the 10 Million HMO enrollees in California who receive care outside of Kaiser Permanente under the delegated/capitated model. Data from medical groups, the health plans and reference laboratories were integrated, scrubbed and loaded into a data warehouse for analytic purposes. An acuity analysis (age, sex, and illness severity) was performed on each medical group’s dataset to test for its impact on the reported quality scores. The data was used to:

- S** Test the caliber and completeness of administrative data for its use to measure the quality of care of physician services,
- S** Develop benchmarks that measure the quality and cost of care provided by medical groups in the delegated/capitated model, and that could also be applicable to a variety of other payment and delivery models, and
- S** Provide meaningful and actionable information that can be used by medical groups to improve the quality of care provided.

## **DATA CHALLENGES**

Using administrative data to measure the quality of care presented a number of challenges:

- S** The large volume of health care data generated makes finding the necessary information needed by physicians to improve quality of care, the proverbial “needle in a haystack”. Despite advances in computing capabilities, the volume of health care data, and its varieties of forms and formats keeps growing beyond the capabilities of computers to solve existing health care data problems.
- S** Integrating data from different sources (medical claims and encounters, prescription drug claims, and laboratory test values/results) is often complicated by the lack of common patient identifiers.

Consequently, some data cannot be completely integrated as required for established quality measurement systems.

## **DATA FINDINGS**

The Study identified approximately 80,000 patients, who based on their medical condition are considered patients with special medical needs. 35,000 are patients with diabetes, 13,000 are patients with asthma, and 34,000 are patients with hypertension - a chronic cardiovascular condition measured in the Study. The services provided to these patients were used for the quality, utilization, and cost measures. Several measured statistical results demonstrate a bimodal or tri-modal shape, indicating different types of data used in the measurement. The lower mode(s) were attributed to a lack of complete data necessary for accurate measurement. Without complete data, standard quality indicators are measuring the completeness of data, rather than the quality of care provided. For many of the indicators, the 75<sup>th</sup> sample percentile was used to set the benchmark.

## **POLICY CONSIDERATIONS**

Establishing benchmarks for physicians and measuring their performance against the benchmarks is a necessary part of quality improvement that further compels physicians to be more accountable for their patient care practices. Administrative data may be used effectively to determine a medical group's performance against established quality indicators when the data has been found to be complete. When the data is not complete, alternative approaches to working with administrative data should be considered to compel quality improvement and assure the integrity of the measurement process.

To improve quality of care, and the use of administrative data for measuring quality, medical groups should adopt the use of a disease registry or a similar process, which would select necessary data from larger data sources, and store it in a more accessible and easier to use format for physicians. Information contained in the disease registries could periodically be reported to the health plans to provide for coordination of efforts to better meet the health care needs of these special populations, and for quality measurement.

For most physicians, pharmacy and hospital utilization data is maintained by the health plans. To help the medical groups to maintain accurate lists of special populations and meet their health care needs, the health plans should provide the medical groups with timely segregated data from their pharmacy and hospital data, identifying the patients with special needs. This would alleviate the problem most medical groups have to aggregate externally provided databases accurately and timely, and link it to their own data for quality measurement.