



# In the Literature

Highlights from Commonwealth Fund-Supported Studies in Professional Journals

## Attributing Sources of Variation in Patients' Experiences of Ambulatory Care

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**Authors:** Hector P. Rodriguez, Ph.D., M.P.H., John F. Scoggins, Ph.D., M.S., Ted von Glahn, M.S., Alan M. Zaslavsky, Ph.D., and Dana Gelb Safran, Sc.D.

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**Contact:** Hector P. Rodriguez, [hrodriguez@post.harvard.edu](mailto:hrodriguez@post.harvard.edu), or Mary Mahon, Senior Public Information Officer, The Commonwealth Fund, [mm@cmwf.org](mailto:mm@cmwf.org)

**Access to the full article is available at:** [http://journals.lww.com/lww-medicalcare/Abstract/2009/08000/Attributing\\_Sources\\_of\\_Variation\\_in\\_Patients\\_.3.aspx](http://journals.lww.com/lww-medicalcare/Abstract/2009/08000/Attributing_Sources_of_Variation_in_Patients_.3.aspx)

### Synopsis

A study seeking to explain the variation in how patients rate their experiences with primary care providers concluded that individual physicians themselves account for the largest share of this variation, particularly in terms of the quality of their communication with patients and their support for health promotion. Other major contributing factors are the practice sites (e.g., how patient care is organized) and local primary care markets (e.g., physician supply).

**"Future research should clarify which specific market factors impede performance and the extent to which poor performance may be modified through activities aimed at improving patients' experience."**

### The Issue

Programs used to evaluate individual physicians and guide quality improvement efforts increasingly rely on patient experience data.

Because it would be unfair to assess and reward individual physicians based on factors that are beyond their control, it is important to identify all possible sources of variation in physician performance in order to target performance improvement activities. This study assessed the relative contribution of individual physicians, practice sites, medical groups, and primary care service areas to differences in patient experience.

### Key Findings

- Compared with the other factors studied, individual physicians accounted for a higher share of the variation in patients' reports related to the quality of physician–patient interactions (communication, health promotion support) and to patients' global ratings of individual physicians (willingness to recommend physician and overall rating). The share of variation attributed to physicians on these measures ranged from 45 percent to 49 percent.
- Care sites accounted for a substantial proportion of the performance variation regarding access to care (29%), care coordination (26%), and interactions with office staff (32%).
- The patient experience measures for which medical groups had the greatest influence were health promotion (21%) and global assessments of care, including overall rating of the physician (21%), and overall rating of care received by all clinicians (24%).

- Primary care markets accounted for the largest proportion of variance with respect to measures of access to care (20%), care coordination (21%), and quality of chronic care (25%).

### Addressing the Problem

Knowing the relative contribution of sources of variation in ambulatory care experience can inform efforts to target interventions designed to improve patient care. This study showed that the lion’s share of variation can be explained by the “lowest system-level units assessed,” that is, care sites and individual physicians. Thus, care delivery redesign efforts that aim to improve, for example, access to appointments and care coordination—functions that are typically the responsibilities of the doctor’s office—would likely be effective in improving patient experiences. The authors also recommend additional research into which specific market factors—such as the quality of insurance coverage or the supply of primary care physicians—impede performance.

Allocation of Variance in Survey Measures		
Measurement Name	Proportion of Variance Explained by All System Factors*	Percentage of Delivery System Variance Accounted for by Physicians
Quality of physician–patient interaction		
Physician–patient communication	37.2	46.6
Health promotion support	34.5	49.0
Organizational features of care		
Access to care	47.7	37.9
Care coordination	38.5	39.8
Quality of chronic care	27.9	48.2
Office staff interactions	38.5	38.9
Global assessments of care		
Willingness to recommend physician	38.0	44.6
Overall rating of physician	37.1	45.9
Overall rating of care	37.1	40.2
* System-level factors include physicians, care sites, health plans, and markets. The column entitled “Proportion of Variance Explained by All System Factors” reflects the proportion of residual variance explained by system-level units after controlling for patient demographics and self-rated health. Source: Adapted from H. P. Rodriguez, J. F. Scoggins, T. von Glahn et al., “Attributing Sources of Variation in Patients’ Experiences of Ambulatory Care,” <i>Medical Care</i> , Aug. 2009 47(8):837–51 (Table 2).		

### About the Study

The researchers drew on Ambulatory Care Experiences Survey (ACES) data (2007) from 61,839 commercially insured patients of 1,729 primary care physicians belonging to 39 medical groups in California. Their goal was to determine the proportion of explainable performance variation attributable to various organizational units in composite measures of physician–patient interaction, organizational features of care, and global assessments of care.

### The Bottom Line

Individual physicians and their care sites should be the primary focus of efforts to improve patients’ care experiences. Further research is needed to determine whether organizational features of patient care that are affected by health care markets can also be improved.

### Citation

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