

EXECUTIVE SUMMARY

OF

A CRITIQUE OF RECENT PUBLICATIONS ON PROVIDER MARKET POWER

This paper is the first in a series examining issues that have a bearing on the development of new and innovative health care delivery arrangements, such as Accountable Care Organizations (“ACOs”), medical homes and other arrangements that require greater clinical and/or financial integration among caregivers.

This first paper, authored by economists Margaret Guerin-Calvert and Guillermo Israilevich at Compass Lexecon, “A Critique of Recent Publications Claiming Provider Market Power” (“Critique”), was commissioned by the American Hospital Association (“AHA”) to evaluate two publications that have been widely cited as support for limiting caregivers’ flexibility to develop or expand clinical integration arrangements with exaggerated claims of provider market power – a 2010 *Health Affairs* article about California health care providers and the 2010 report by the Massachusetts Attorney General on health care costs.¹ This Critique presents economic analyses conducted to:

- 1) evaluate the Article and the AG Report; and
- 2) assess the findings of these publications and the policy conclusions drawn from them. In particular, this Critique focuses on the claims that hospital leverage or market power explains differences in hospital prices and increased hospital expenditures.

It concludes, after rigorous analysis, that neither publication lends any credible support for such claims. These conclusions suggest that such publications should be subjected to similarly rigorous analysis before being accepted by national policymakers as a basis for decisions about delivery system reforms.

A brief summary of the Critique follows.

HEALTH AFFAIRS ARTICLE EXAMINATION OF CALIFORNIA PROVIDERS

The *Health Affairs* Article on California providers summarizes the results of site interviews with various health care market participants in six California metropolitan areas conducted by the Center for Studying Health System Change in October through December 2008. The results are

¹ Office of Attorney General Martha Coakley, “Examination of Health Care Cost Trends and Cost Drivers,” March 2010 and Letter to Partners, June 25, 2010 (hereinafter “AG Report” or “Report”); Berenson, Robert A., Paul B. Ginsburg, and Nicole Kemper, “Unchecked Provider Clout in California Foreshadows Challenges to Health Reform,” *Health Affairs*, Vol. 29, No. 4, April 2010 (hereinafter “Article”).

presented largely as anecdotes recounting differences in prices for services at specific hospitals, and as summaries of other articles observing that some hospitals have prices that are above “average.”² The Article then links this anecdotal information with a general discussion of payment, cost, managed care and consolidation trends to reach very broad conclusions that payment differences and payment levels in California are driven by provider or health system market power, without an empirical examination of factors that might account for differences. In particular, the Article claims that:

- Negotiated commercial payment rates for physician and hospital services in California have been rising faster than Medicare rates, likely due to enhanced market power from merger and consolidation; and
- Certain trends reflect increased provider bargaining or market power that has translated into above-competitive pricing levels.

Those conclusions do not withstand close scrutiny:

The difference between commercial and Medicare payments do not support market power claims. There is no economic basis for the conclusion that these differences are driven by hospital market power or consolidation. *Relative* payments are driven substantially by government reimbursements not having kept pace with costs.

Trends in managed care contracting, consumer demand, and hospital closure and consolidation in California do not support market power claims. The Article uses the term “market power” loosely to encompass a wide variety of conditions and circumstances, including many that are not traditionally treated as anticompetitive. Moreover, the Article confounds many different factors that account for payment levels, changes in payments, and mistakes changes in consumer demand for market power. Indeed, by its very broad statements about managed care trends, the article appears to mistakenly equate changes in consumer demand for broader networks and the resulting changes in network configurations with provider market power.

The Article confuses consumer preference for providers, highly differentiated services, or specialized services with market power. The Article fails to acknowledge that many hospitals with high-level services, such as those offered at tertiary care hospitals, have higher costs than hospitals that do not provide such services, and that such higher costs imply higher prices. Moreover, the Article does not examine the competitive constraints facing hospitals for some or all of their services, and equates the desirability of hospitals and their inclusion in networks as evidence of “anticompetitive” market power (*e.g.*, the ability to negotiate prices above competitive levels).

A hospital can become highly desired simply by providing excellent care. Indeed, strong consumer preferences for specific hospitals and their services provide an incentive for hospitals

² Prices are defined in different ways in the two studies and include estimates of commercial payments.

to improve services, enhance quality or expand output of services in great demand, and to expect an appropriate return on the investments required to provide these services.

MASSACHUSETTS AG REPORT

The AG Report examines relationships between specific measures of hospital prices and various factors, such as case mix index (“CMI”), teaching hospital and disproportionate share hospital (DSH) status, and provider size. It concludes that price differences among hospitals are caused by market power or leverage.

Those conclusions do not withstand close scrutiny:

The AG Report’s conclusions about the sources of price differences are based on univariate analyses— that is, analyses focusing on a single variable, rather than **multivariate analyses, which can evaluate more than one statistical variable simultaneously**. Essentially, the AG Report examines one variable at a time, and accepts or rejects the factor as an important one for understanding price differences on this very limited basis. Univariate analyses cannot capture the complexity of hospital operations. Although univariate relationships may be informative, one cannot calculate a simple correlation and reach a scientific conclusion that a particular variable is or is not a relevant factor affecting hospital prices. Instead, multiple variables must be taken into account.

However, even the AG Report’s conclusions from its univariate analyses are not supported.

The level and intensity of care provided, as measured by CMI, is correlated with price. The AG Report states that prices paid to hospitals do not correlate to acuity or complexity as measured by CMI. Contrary to the AG Report’s assertion, by extracting the underlying data from the Report, and re-estimating the relationship, we find that there is correlation between CMI and the prices in the Report. Overall analyses show that there is a positive and significant correlation between prices and CMI.

Significantly, even these correlations using the AG Report’s data fail to capture fully the relationship between prices and CMI because the underlying data in the Report already have been adjusted by CMI or a similar measure.

The AG Report’s conclusions with respect to DSH status are internally inconsistent. In its summary findings, the Report states that prices are not correlated to “the extent to which a provider cares for a large proportion of patients on Medicare or Medicaid,” but then states that commercial insurers pay lower prices to DSH hospitals. Regardless of the relationship that the AG Report might choose as its preferred one, these inconsistencies reflect the complexity of the relationships as well as the limitations of the univariate analyses.

Prices at teaching hospitals are correlated with the intensity of their teaching programs. The AG Report concludes that prices are not correlated to or are not explained by whether a provider is a teaching or research facility. These conclusions are rejected by the AG Report’s own data. Even the simplistic graphics reveal that the presence of large teaching programs is related to measures designated as price measures, and that this result does not depend on

assessments of market power or size of the hospital. Contrary to the AG Report's assertions, there is a strong positive correlation between the hospital's teaching intensity (as measured by the interns and residents per bed) and average prices, even after adjusting prices for CMI.

This is consistent with numerous studies that recognize that teaching hospitals have substantial overhead and other costs associated with their provision of services.

The data and reasoning of the AG Report do not support its conclusion that price differences are caused by market power or leverage. First, the AG Report's measure of "leverage" is flawed and does not represent a measure of market power or anticompetitive power over price. The AG Report acknowledges that it has not conducted the kind of analysis typically used to define a relevant market – a critical context for assessing whether a hospital has market power – and that its own measure of market leverage is "non-scientific."

Second, when the AG Report examines the relationship between size (which is its proxy for leverage) and payments, it fails to take into consideration that size (whether measured by revenues or numbers of patients served) is related to other factors such as CMI and teaching intensity, which individually and collectively are related to costs and payments. In fact, larger hospitals tend to have a higher CMI, and hospitals with higher teaching intensity tend to be larger. These factors correlate with higher payments, whether or not a hospital has "leverage."

Third, the AG Report fails to take into consideration that demand for a hospital, as measured by volume of patients served, can reflect the perceived and actual quality of services offered at the hospital.

Fourth, the leverage analyses in the AG Report are static, and are based solely on claimed relationships between size and payments. There is no evaluation of competitive constraints or the use of mechanisms by payors or others to discipline pricing.

Last, the leverage analyses are inconsistently applied to include large *and* small hospitals: the initial AG Report also identified "geographically isolated" hospitals, many of which are very small, as having market power over insurers independent of their smaller size. Just as in the case of larger hospitals, the Report does not assess of other factors such as the costs of these hospitals or the competitive conditions in which they actually operate in evaluating their prices. The initial AG Report thus managed to claim both that higher prices are due to leverage based on a hospital's large size *and* that very small hospitals similarly have market power.

Finally, all empirical studies have some price variation that cannot be explained by their models. This is because these types of economic models cannot capture all the idiosyncratic factors that affect each hospital's costs and rate negotiation process. Residual variation not captured by the model cannot be assumed to reflect inefficiencies or market power. The AG Report makes this assumption when it attempts to isolate only one reason for differences among provider prices. When it cannot find correlation with the individual single variables and hospital prices, and finds instead a correlation with its measure of "leverage," the AG Report reaches the overly simplistic and unsupported conclusion that "[p]rices paid for health care services reflect market leverage."

The AG Report contains an incorrect assessment of cost drivers. The AG Report argues that the overall increase in medical spending over the past few years has been driven primarily by

provider prices, and that these prices do not appear to track costs. This extreme assertion is unsupported, for several reasons: (1) the Report does not provide a methodology to assess whether prices are explained by costs; (2) the Report only analyzes unit costs at six hospitals and extrapolates its unfounded conclusions to all hospitals; (3) the Report only adjusts costs by case mix and incorrectly assumes that this adjustment will account for any differences in complexity, severity of illness, and quality of care; and (4) the analysis is primarily focused on cross-sectional comparisons across hospitals (*i.e.*, comparisons that look at differences between hospitals in a single year), without any analysis of the most basic cost drivers that have contributed to the increase in health care prices in recent years.

Perhaps one of the most important oversights of the AG Report is that it ignores the substantial increases in input costs that hospitals have faced, both nationally and in Massachusetts. *Trends* in costs and *changes* in costs, are not captured by the AG Report's focus on *contemporaneous* price differences between providers. By looking more deeply at how hospital-level input costs have changed over the past few years, it is possible to get a more complete understanding of increases in health care expenditures.

The AG Report draws conclusions about the drivers of health care cost increases without careful consideration of basic causes of price changes in the health care market. Despite its assertion that unit prices are largely responsible for health care cost increases, the AG Report does not include any analysis of unit prices over time. Indeed, it is unclear why the AG Report concludes that prices explain costs but costs do not explain prices. To our knowledge, the AG Report has not used a methodology capable of identifying causality.