Connecting Operations, Operating Economics, and Finance for Integrated Health Systems

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The integrated model of community healthcare delivery offers unique potential for value enhancement in reforming markets (Zismer & Thompson, 2012). It also may present unique operational, operating economics, and financial performance challenges that require new perspectives and managerial competencies that are not ordinarily practiced by the classically trained healthcare leaders: administrators, chief financial officers, operations managers, and clinicians.

This column presents a novel managerial framework for the analysis and evaluation of the operating and financial performance of integrated health systems (IHSs), where most, if not all, providers are employees. It takes advantage of the physician-produced work relative value unit (WRVU) as the fulcrum, or point of leverage, for all other clinical activities and resulting operating inputs, clinical outputs, and accounted operational financial performance. Case vignettes are provided to demonstrate the framework's application.

THEORETICAL FRAMEWORK

Every clinical program in a health system is designed to organize and apply resource inputs to create clinical outputs, the results of which are captured in operating reports, which are converted to financial accounting applications for ultimate reporting on organizational financial statements.

For the more traditional hospital operating model for clinical programming, information on the operating revenues and expenses for physicians is absent from hospitals' operational and accounting methods because, for the most part and historically, physicians have been independent practitioners. By definition, their business models, and related operating and financial information, have been separate from and unavailable to hospitals. Consequently, hospitals have been missing key data elements: those relating to the crucial economic drivers of the hospitals' operating revenue and expense structures—the physicians.

IHS operating economics are driven, to a great extent, by clinical services generated by employed physicians. Physician-generated units of effort are created and measured as WRVUs. WRVUs are standardized measures of physician effort (Dummit, 2009). For every WRVU produced, related clinical activities, such as therapeutic procedures, inpatient bed-days, and the work units of

clinical staff under physicians' supervision, are generated within the integrated model.

For example, a fully integrated health system that generates $1 billion in annual revenues on 2 million physician WRVUs nets $500 in operating revenues per average physician WRVU produced. If this figure matches the organization's target average, the IHS is on budget. If more or less than $500 per WRVU is produced, leadership should undertake forensic examinations to understand why and whether the findings are positive or negative in the context of the IHS's budget, clinical services plan, and overall strategic plan.

Considering the IHS operates as a closed economy—that is, the model controls all clinical services and points of care delivery (Zismer & Werner, 2012)—analyses such as the measurement of WRVUs, as exemplified in the case vignettes that follow, are useful management tools for IHS leaders in that the results of these and related forensic examinations provide a framework for identifying and testing operational and financial performance hypotheses and initiating problem-solving efforts.

CASE VIGNETTES

Vignette 1

Direct operating expenses for Integrated Health System A's cardiovascular service line include physician compensation and benefits, clinical staff compensation and benefits, support staff compensation and benefits, allocation of shared clinical and support staff compensation and benefits, supplies, and service line marketing expense (see Figure 1). Indirect expenses (overhead) and costs of capital are not included in this analysis at the discretion of the IHS's managers.

Here, direct operating expenses allocable to the delivery of clinical services (for the IHS overall or for one or several groups of clinical service lines) can be denominated as a function of the physician WRVU produced. Management identifies and defines attributable direct expense categories.

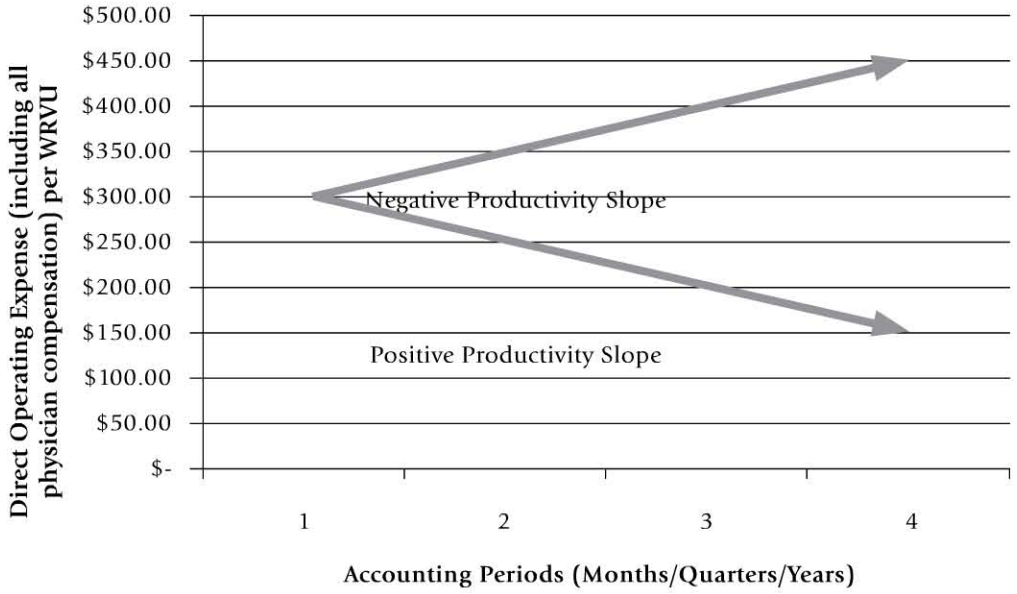
A positive slope result indicates clinical service line efficiency improvement. A negative trend line slope result indicates that the clinical service line is becoming less efficient, resulting in increased expense per unit of physician effort over time. Multiple factors affect operations expense efficiency, including the relationship of net operating revenue production per unit of operating expense (a product of per unit reimbursement rates interacting with types of clinical services produced and per unit operating expense rates). Per unit operating expenses are, in part, a result of clinician and management decision making and other intervening factors, such as service volume fluctuations and fixed operating cost structures.

Vignette 2

Efficiency of compensation paid to employed physicians can be denominated and evaluated as a function of the WRVU as well. For IHSs, physician compensation (cash payments and/or the costs of employee benefits) is a line-item operating expense of the IHS.

FIGURE 1

IHS Performance Operating Economics Analysis of Net Operating Expense per Physician WRVU: Direct Operating Expenses by Clinical Specialty

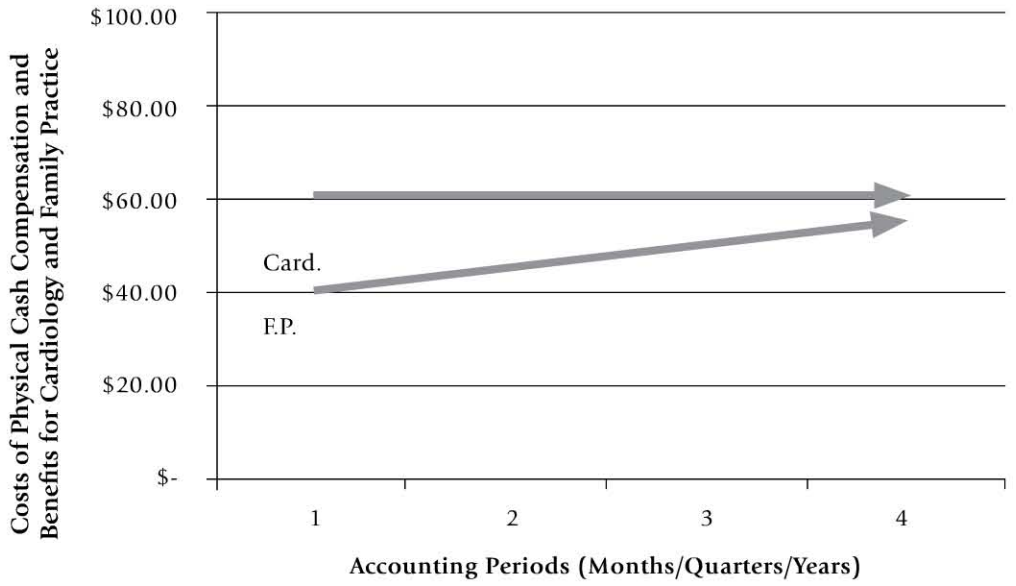


Physicians' cash compensation is often evaluated in the aggregate with some comparison to a market standard (e.g., "We pay cardiologists at the 75th percentile"). Such a comparison says little to nothing about the productivity derived from the compensation paid.

In vignette 2 (see Figure 2), we see that for four accounting periods examined, cash compensation paid to cardiologists per WRVU produced is flat, while by comparison, cash compensation paid to family physicians per WRVU has increased upwards of 45%. This information in and of itself is not positive or negative, but it raises important questions for managers and clinical leaders to examine. At least five levels of related analyses can be pursued:

1. The compensation inflation rate independent of all other comparisons
2. The year-over-year inflation rate compared with geographic standards for the same clinical specialty
3. The year-over-year inflation rates compared with the inflation rates of nonphysician clinical support staff, within the clinical specialty or the IHS overall
4. The year-over-year inflation rates compared with other clinical specialties
5. The year-over-year inflation rate of specialty-specific operating revenues

FIGURE 2
IHS Performance Operating Economics Analysis of Physician Compensation Inflation Rate Comparisons: Cardiology and Family Practice



The analysis demonstrated in Figure 2 also does not speak to total annual compensation paid per physician. However, it is one method of addressing the question of per unit operating efficiencies as a function of physician compensation inflation rates over time. For example, a family physician paid a fixed salary can experience significant variation in total compensation received per WRVU produced on the basis of WRVU production per accounting period. Likewise, if physicians in any clinical specialty are required to perform and are paid for duties that do not produce WRVUs, resulting in a decrease of total WRVUs produced in a given accounting period, the compensation rate per WRVU for these physicians will appear inflated.

DENOMINATING IHS OPERATING ECONOMICS AS A FUNCTION OF THE PHYSICIAN WRVU

As with any management tool that facilitates the observation and examination of the operating economics of a business, practitioners need to understand appropriate applications as well as related limitations of the methods. When examining the operating economics of IHS as a function of the physician WRVU, certain principles apply:

1. Denominating operating revenues, operating expenses, and other operating statistics as a function of the WRVU is one method to track and evaluate

operating economics performance of the IHS. These efforts do not efficiently cross-walk to IHS financial accounting practices, although as managers become adept with this approach to IHS performance analytics, forecasts of financial performance become easier and more reliable.

2. Results from such analytics typically indicate that problems exist or future problems may arise. Examining the results of such analytics does not pinpoint the problem, but useful problem-related hypotheses can be generated to guide specific problem identification and problem resolution more efficiently.
3. For the approach to be most useful, IHS managers should convert each new annual operating budget to a set of "per WRVU" performance expectations for the IHS overall and for individual clinical departments and programs.
4. Clinical leaders should examine operating economics performance trends with an eye toward the effects of apparent trends on quality of care and patient satisfaction.

LONG-TERM UTILITY OF THE MODEL AND APPROACH

Some will view this model of understanding and managing the operating economics of integrated health systems as having a limited lifespan—in the future, the reimbursement model for physician services may not be tied to the WRVU—and while such speculation may be correct, the theoretical framework presented here has nothing to do with clinical services reimbursements. The model provides a way to understand how physician service units of effort translate to operating economics performance—clinical services, operating revenues produced, and operating costs generated—and, ultimately, the financial performance of IHSs. The accuracy of these translations may be especially important as health systems move to value-based or other forms of third-party contract methods and away from fee-for-service revenue models. Under such arrangements, understanding the relationships between revenues, services produced, and operating costs will be challenging.

CONCLUSION

Clinical leaders in particular find this approach to performance evaluation of the IHS, and related clinical service lines, understandable and useful, as many are not well versed in financial accounting methods. Most do, however, understand how clinical units of effort (outputs) are produced and applied and how units of clinical services production consume units of direct operating expense (inputs).

My experience with IHS management demonstrates that application of an expanded approach to the integration of operating economics with standardized methods of financial performance accounting effectively harmonizes the experience of clinicians and those managers and administrators trained in professional degree programs in healthcare administration.

As clinician leaders and IHS managers become accustomed to the application of the framework and related techniques presented here, they will be able to expand the

approach to provide a broad range of useful analytics and related reports that display and connect operating economics with financial performance and, ultimately, the financial accounting of the IHS.

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