Connecting the Dots: Examining the Link Between Workforce Health and Business Performance

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Traditionally, employers have viewed health benefits as a cost of doing business. Benefits have served as a means to provide access to essential healthcare services, as well as an important consideration for employee recruitment and retention. With rising healthcare costs, employers have been forced to more closely scrutinize what has become a significant source of organizational expense. Some have reduced or eliminated healthcare benefits, or are considering paying the federal penalty and allowing their employees to join an exchange. Others are adopting progressive approaches such as account-based high deductible health plans, in an effort to control costs.

In light of the magnitude of the benefits expense, some employers have begun to more critically assess the value of business investments in workforce health. While workforce health status has been demonstrated to have a direct link to healthcare expenditures, absence, and presenteeism,[1-5] several recent reviews and commentaries have brought into question the degree to which corporate efforts to improve health produce positive health or financial outcomes.[6-8] Illness increases business expense, but there may be limits on the extent to which businesses can achieve and sustain improvements in the prevalence and severity of illness.

At the juncture of continued healthcare cost inflation and increased scrutiny regarding the impact of health-related investments, employers have a fiduciary duty to carefully examine the link between health and business outcomes. Currently, measurement of the perceived effect of workforce health appears limited to 2 fundamental dimensions—healthcare costs and lost productivity (including absence)—both of which are in the human resources (HR) domain. Although workforce health status has a plausible and potentially comprehensive impact on business performance, measurement of this broader dimension of value of business investments in health has not been well articulated.

While a number of factors have contributed to the current scenario, 2 in particular stand out. First, HR departments have generally been viewed by senior leadership as cost centers, with cost management as their primary priority. This has effectively restricted measurement of the business impact of health management to HR metrics. Second, it makes intuitive sense that improvements in workforce health status can favorably influence healthcare costs, as well as the potential for greater employer engagement and reduced turnover, leading to improved work quality and greater customer satisfaction and sales revenue. Disappointingly, supporting data are woefully lacking beyond the impact of workforce health status changes on healthcare expenditures—and even that relationship has recently been called into question. It would therefore seem prudent for employers to realize a greater level of understanding of the business impact of health. Doing so may help to more appropriately prioritize employer human capital investments toward those likely to create the greatest net organizational value.

In this article
Take-Away Points / p116
www.ajmc.com
Full text and PDF

The intent of this commentary is to help employers, plan sponsors, and payers expand their approach to quantifying and therefore better understanding the broader business impact of workforce health status. It is important to note that the intent of this commentary is not to assess the extent to which employer investments in health impact healthcare costs and lost productivity. As applied, this expanded approach provides both HR personnel and their senior business leadership with a more comprehensive perspective of the impact and value of strategic investments in workforce health. This broader set of metrics more effectively aligns HR and business objectives around what can become a consensus framework, with organizational revenue and profitability as the common goal.

Health Data Metrics in Common Use

Employers have traditionally used health data metrics to identify causes of high healthcare costs. Used appropriately, these metrics can help to pinpoint specific sources of significant healthcare expenditures in order to develop risk mitigation strategies. To this end, benefits strategies have largely focused on cost management, with more recent approaches incorporating value-based benefit design, narrow or tiered provider networks, innovative pricing models, and population health management programs.

Take-Away Points

To most stakeholders, the stated business value of employer health management strategies has largely been limited to reductions in healthcare costs. This article describes how employers and other stakeholders can gain a broader understanding of the relationship between workforce health status and business performance. This approach:

- Optimizes use of employer data sources that are readily available but have not been integrated.
- Yields a more comprehensive and compelling basis for assessing the impact of health benefits strategic planning.
- Can help employers and other stakeholders make more informed and value-based health benefits purchasing decisions.

Claims data warehouse technology enhancements have simultaneously advanced analytic capabilities and reduced the financial barriers to employer access. This has expanded employer understanding of population-level health metrics, including condition-specific healthcare compliance, utilization, and costs. Health risk and biometric screening data are now more commonly integrated with claims data analysis to quantify medical costs related to identified health risks and guide wellness program strategy.[3,5] These advances have helped employers to refine their focus to more efficiently address the root causes of identified healthcare cost drivers. Publications regarding employer metrics for health management have also helped to broaden employer understanding and provide additional refinement for strategy development.[9,10]

Human Resources as a Health and Productivity Management Silo

During the past decade, efforts to gain a better understanding of the medical and productivity costs of poor health have yielded insightful information. Benchmark reports from the Health Enhancement Research Organization,[3] the Integrated Benefits Institute,[11] Institute for Health and Productivity Management,[12] and others[2,4,5,13,14] have broadened our understanding of how health risks and chronic conditions contribute to these organizational costs. However, it is important to note that these studies and others have limited their analysis to HR-related measures: healthcare costs and lost productivity. While healthcare expenditures are readily acknowledged at the C-suite level as a primary HR management responsibility,[15] lost productivity measures, particularly presenteeism, have not been as well received by business leaders as a meaningful business measure.[16] And while presenteeism has been characterized as impacting work quantity and quality,[17] little evidence exists to link these findings with business performance measures. Strengthening the connection between health and business performance has potential to increase business leader acceptance of the business value of a healthy workforce.

Why is it that no link between health and business performance been formalized? Several reasons may exist. First, these 2 areas rely on very different sources of information, with no precedent for data integration due to organizational silos. HR leaders have been significant contributors to our understanding of their departmental costs, limiting quantification of the costs of poor health to attributes under their direct control. Business performance is not a direct responsibility of HR function, which is typically viewed as a siloed cost management center, as shown in **Figure 1**. Second, health absence and presenteeism measures are common across all industry types, facilitating data collection and analysis. In contrast, business performance metrics across different industries differ widely, substantially limiting generalization. Third, employer health and productivity data are typically collected at an individual level to reflect individual health and productivity costs, and are then aggregated at the business unit or organization level. In contrast, business performance metrics may or may not be tracked at the individual level, which can create challenges to meaningful data integration. As a result of these considerations, and likely others, there has been little focus on the connection between workforce health and the business value of a healthy workforce.

Existing Evidence for Health-Related Performance Impact

A few examples of the relationship between employee health and job performance can be found. One area of recent research has targeted individual well-being as a more holistic approach to individual health, encompassing physical, behavioral, financial, social, community, and career dimensions. Researchers have demonstrated an association between individual employee well-being status and supervisor performance evaluation.[18] This association has also been demonstrated at an aggregate level, with business unit well-being scores correlating with team effectiveness and business performance for a large employer.[19] These recent results have provided a compelling basis for additional research in this area.

Generally, however, evidence supporting the impact of workforce health on organizational economic performance is scant. In support, some research has shown an association between employee health status and performance of individual tasks[1] or occurrence rates of critical incidents,[20] but these results were not linked directly to business financial impact. It is easy to appreciate that absence and presenteeism are individual attributes, such that health status could affect individual productivity measures across diverse industries. In contrast, the link between health

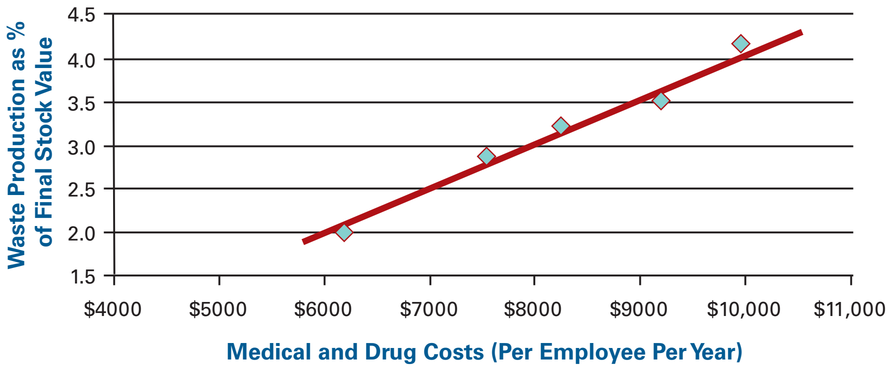
■ **Figure 1.** A Simplified Equation to Quantify Employee Value

Value = Work Output − Cost

Components	Business productivity	Wages, health benefits, WC costs, recruitment, vacation . . .
Responsible department	Operations	Human resources
Representative metrics	–Labor hours per unit –Waste as % of total output –First pass yield	–PEPY healthcare costs –Employee engagement –Turnover rate

PEPY indicates per employee per year; WC, workers' compensation.

■ **Figure 2.** Association of Employee Healthcare Costs and Work Quality at 5 Locations of a US Manufacturer



status and business financial performance is more difficult to generalize across industries, much less among employees within a single company.

In their "2010/2011 Staying At Work" report, Towers Watson and the National Business Group on Health showed that over a 5-year period, organizations substantially investing in workforce health had greater business success as measured by shareholder return.[21] However, this analysis was cross-sectional in nature. While a causal effect was implied, an alternate interpretation of the findings is that employers with greater business success simply have more discretionary funds available to invest in workforce health.

Similar cross-sectional data linking workforce health with work quality have been reported in a manufacturing firm, where average employee healthcare costs (as a proxy for health status) correlated directly with waste production as a percentage of final stock value across 5 locations,[22] as shown in **Figure 2**. At a location-specific level, using annual revenue per employee estimates, differences in healthcare costs of $1000 per employee were correlated with higher quality sufficient to increase stock value production (and therefore, revenue) by $2000 per employee. This finding, though not rigorously validated, has major economic implications for employers thinking beyond healthcare cost control.

The link between health and business performance has also been outlined in a recent industry white paper.[23] The author presents a series of industry-specific business performance metrics for consideration for integration with health data, but unfortunately does not provide detailed quantitative examples. As technological advances lead to improved information management and tracking, it is likely only a matter of time before more substantial efforts at data aggregation help to demonstrate a causal relationship between workforce health and business performance.

Table 1. Representative Individual-Level Business Performance Metrics by Industry

Industry	Individual Business Performance Metrics
All industries	Supervisor performance evaluation Critical incident incidence Work output Employee engagement Customer satisfaction
Insurance	Average insurance policy size Average handling time of claims Net written premium Number of new insurance policies
Manufacturing	Quantity of merchandise produced Value of merchandise produced Defects per million opportunities Production plan variance Occupational injury incidence
Retail	Shelf stocking efficiency Sales transactions per selling hour
Call center	First call resolution rate Average time to answer calls Calls handled per hour
Healthcare	Patient complaints Occupational injury incidence Clinical error incidence

Adapted from Carnish E. *Healthy Employees, Healthy Profits: A Stronger Business Case for Employee Health Management Programs.* Used with permission.

Integrating Health and Business Performance Metrics—The Opportunity

Why should employers—and particularly HR personnel —integrate these heretofore separate metrics? An understanding of the impact of workforce health and well-being on business performance has the potential to provide notable insights. Perhaps most importantly, this connection could more appropriately integrate health and well-being management, generally utilized solely as a benefits cost-control strategy, into the broader business investment strategy. Identifying the business impact of health and well-being management strategies can provide substantial justification for specific investments in these areas. For example, in a retail setting, if poor employee well-being is associated with reductions in customer satisfaction and lower sales volume, it may be worth investigating whether efforts to improve workforce well-being result in more contented employees, and, in turn, increased customer satisfaction and sales volume. If so, a comparatively small investment in well-being could have a substantial impact on business revenue.

Another important result of integration of workforce health, well-being, and business performance metrics is that HR leadership becomes a more involved strategic partner to business operations. Accordingly, with combined metrics, there is the potential for considerably greater alignment of organizational interests toward common business performance objectives, instead of the current perception of HR as solely a cost management function. Some organizations have achieved this effective transformation of HR from cost center to strategic business partner with measurable success.[24]

Yet in a recent survey, the Integrated Benefits Institute found that only 20% of CFOs would consider using work output/labor costs as the best way to quantify health-related productivity.[25] Instead, health-related absence was reported by 46% as their preference for reporting this measure, which clearly fails to incorporate any at-work decrements in business performance. Further, in a global survey of CEOs, 33% identified benefits cost management as an important HR responsibility; workforce health and well-being as a business strategy was not identified as a business priority.[15]

Linking Health Outcomes With Business Performance

The process of integrating data to link workforce health and well-being measures with business performance does not have to be difficult. In many cases, the necessary information already exists, with the challenge being to integrate data from disparate sources. Both individual and group (facility or company)-level data may be accessible, and evaluations combining both may provide meaningful insights.

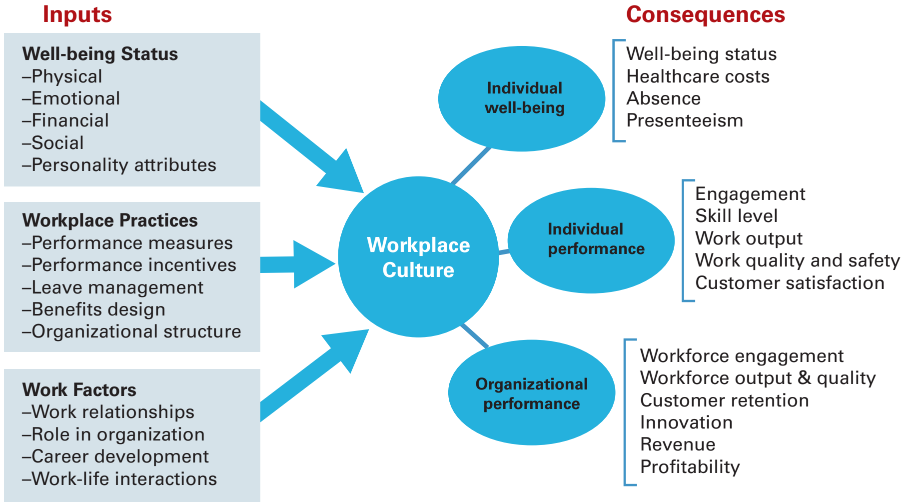
At the individual level, organizations are likely to have performance evaluations that may be in a quantitative or ordinal format. This information can be paired with individual health or well-being scores available from health risk assessment vendors or health plans to gain a better understanding of the association between health and worker performance. Depending on the industry, additional worker-specific performance data may be available, as may be the case for industries where specific measurable tasks are performed, such as call centers, banks, or pharmacies.

Table 1 provides a listing of representative individual business performance metrics for specific industries. These, and comparable metrics in other industry categories, may be used to demonstrate associations between individual health and well-being status and business performance.

At the group (facility, unit, or company) level, aggregated individual health measures and performance evaluations can be linked with team business performance data to better understand the link between health and organizational performance. Figure 3 is also relevant to populations as well as individuals, with the caveat that other factors, notably market influences, will certainly impact aggregate results. An array of business performance measures are commonly tracked in business operations, including those related to quality, volume, customer satisfaction, revenue, and others that are more industry specific.[23]

Table 2 provides a listing of representative aggregate metrics for various industries that are suitable for use in evaluation of health-related business impact. Employers should review their existing business reporting to identify the specific performance metrics that are central to business operations, and integrate those with health, well-being, and performance reporting. Integration of these key health and operations metrics can enhance organizational leadership interest in a broader perspective of the potential value of workforce health and well-being on business performance.

■ **Figure 3.** A Conceptual Framework for Workforce Well-Being and Business Performance



Limitations of Using This Measurement Approach

There are several limitations to this approach of investigating the link between health, well-being, and business performance. Perhaps most importantly, at an aggregate level, fluctuations in business outcomes reflect a myriad of external economic forces that may obscure the impact of workforce health and well-being status on organizational performance. Accordingly, review of individual-level measures may be more meaningful indicators because they will be somewhat less dependent on market forces.

Second, while this approach represents a framework for connecting individual health to overall business performance, several assumptions in this approach must be acknowledged. The causal relationship between improved health and improved individual performance has not been fully characterized, though some existing evidence is certainly supportive. And while individual health and performance may be linked, little if any data exist which demonstrate that cumulative improvements in workforce health result in organization-level business performance improvement.

Notably, as only 1 of many components of human capital assets, individual health represents only 1 determinant of workforce performance. Other factors, including engagement[26] and organizational policies,[27] have also been shown to have an association with workforce performance. While it may be true that improvements in population health result in incremental improvements in workforce and business performance, it is possible that organizations can derive an even greater opportunity to increase performance by considering changes in other domains of HR management, including training, compensation design strategies, leave policies, and

■ **Table 2.** Representative Aggregate-Level Business Performance Metrics by Industry

Industry	Aggregate Business Performance Metrics
All industries	Total revenue per employee Shareholder value Earnings multiples Net income Employee voluntary turnover Employee advances (pay raises, promotions) Customer satisfaction Overtime Temporary worker use
Insurance	Average insurance policy size Average handling time of claims Net written premium Number of new insurance policies
Manufacturing	Throughput/work unit Defects per million opportunities Production plan variance Man-hour per equivalent unit
Retail	Comp stores sales growth year over year Inventory turnover Profit per customer visit Sales per selling hour
Call center	First call resolution rate Contact quality Customer satisfaction
Healthcare	Patient satisfaction Compliance with quality measures Complication rates In-hospital mortality rates

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management techniques to help maximize the value of workforce human capital.

The Future

There is a compelling need for employers to more comprehensively evaluate the business value of a healthy workforce. Commercial health plans can also benefit by more clearly measuring and articulating the value of provided services. Early research efforts are already under way and can be expected to shed more light on this developing area of evaluation. Organizations will benefit from thoughtful integration of selected relevant metrics from both HR and business operations, to better understand the link between workforce health, well-being, and business performance. Many organizations already have well-established business performance metrics, and are well positioned to integrate HR and business data for meaningful results. Importantly, employer ability to transition from cost-based to value-based purchasing can be accelerated by incorporating the business impact of workforce health when considering an array of benefits designs. Particularly considering the current environment of healthcare reform, when employers are considering large-scale changes in benefits strategy, a clearer understanding of the business value of a healthy workforce cannot come at a better time.

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