Demonstrating the economic value of investments in health at work: not just a measurement problem

Lesson one of economics teaches us that the factors of production for all goods and services are land, capital, labour and enterprise. Payroll and benefits are typically the biggest expense category on the balance sheet accounting for around 40% of a firm’s operating costs. There is no escaping the fact that people are a key input factor (labour), but they are also responsible for managing all the production factors (enterprise) and hence fundamentally drive output. Employees are always cited as a firm’s greatest asset since it is human capital that offers the dynamic potential to differentiate any enterprise. Buildings and machinery, after all, do not typically create the biggest expense category on the balance sheet accounting for around 40% of a firm’s operating costs. There is no escaping the fact that people are a key input factor (labour), but they are also responsible for managing all the production factors (enterprise) and hence fundamentally drive output. Employees are always cited as a firm’s greatest asset since it is human capital that offers the dynamic potential to differentiate any enterprise. Buildings and machinery, after all, do not typically create new products, make sales or find new customers. Human capital holds the key to a firm’s success or failure and has been described as the profit lever, especially in a knowledge-based economy [1].

Managing these factors of production is key to business performance. Now suppose if a major item of capital machinery were to breakdown, clearly there are two economic consequences for a firm: first, there is the direct ‘financial cost’ to restore the machine to its optimal performance and second, there is the ‘opportunity cost’ of the ‘downtime’, which may be measured in terms of lost production, revenue and profit. Clearly, firms will wish to avoid these losses, and the rational economic response is to make investments (regular servicing of the machine, technology updates, contingency planning, etc.) that alter the risk (probability and magnitude) of these losses. However, these investment decisions depend on information as well as incentives.

Before deciding whether and what to invest four key issues must be addressed, firms need to:

(i) be able to quantify the total cost impact of ‘the breakdown’ on business performance (size of the problem),
(ii) understand cost and benefit information on ‘strategic investment’ options to choose the best opportunities to reduce this cost impact and maintain (or improve) performance (what might work?),
(iii) know how to measure the success of their efforts (return on investment) and
(iv) know how to communicate this value story to those holding the budgets (the business case).

Human capital investment decisions also require this information but typically the stakes are higher and the issues more complex. Since an individual’s health stock will affect their supply (quantity, quality and price) of labour, it is intuitive that there is some kind of link between employee health, the efficiency (costs and benefits) of human capital and thus business performance. Better employee health means better business is the fundamental value proposition for investments in health at work. Occupational health professionals clearly have been touting this message for a very long time. But does it really wash in the corporate boardroom? Are firms prepared to make strategic investments in health above and beyond that required by their regulatory environment?

Due to its system of health care finance, the USA is perhaps a special case, employee health care is certainly part of the corporate landscape for executive decision-makers since spiralling health care costs have, in effect, dramatically increased the price of labour and threatened to undermine the global competitiveness of US firms. Headlines such as ‘General Motors spends more on health care than it does on steel!’ [2] have led to health care cost-containment measures. However, these direct costs have been described as the tip of the iceberg compared to the vast underbelly of opportunity costs associated with reduced employee health. Health and productivity management has attempted to provide firms with some tools to identify and measure the full cost of illness at work and indeed the impact of investments in employee health.

While much progress with this agenda has been made in recent years, investment in health at work generally remains a largely underexploited source of value and competitive advantage for many firms. Many corporate decision-makers can intuitively see it is possible to build the bridge from employee health to business performance, but require more specific quantification of this relationship. They are explicitly aware of a chain of uncertainty: how much investment is required to improve employee health? How much health improvement is required to improve productivity? How much productivity improvement is required to improve profitability? What do the ratios of investment to payoff for my business look like? Indeed what share of benefits from investments flow external to the company? Hence, to date many firms have been reluctant to make substantial strategic investments in health based on an economic rationale.

The often cited reason for this corporate inertia lies in the management consultant saying, ‘what gets measured gets managed gets done!’ The true costs of reduced employee health and the value of investments to tackle this still remain largely unmeasured in many organizations. Recent research efforts have focussed on measuring the ‘size of the problem’ as well as the effectiveness of strategic investment options.
Within the firm, closer attention has been given to piecing together the jigsaw that is the cost of illness at work by collating, consolidating and analysing a diverse range of available information that is already routinely collected through existing administrative systems (occupational illness reporting, early retirement records, employee assistance programme uptake, sickness absence data, employee surveys, health care costs, liability claims, health risk appraisals, etc.). In addition, many firms have used employee self-report productivity instruments [3] to better understand work loss due to illness at work (absence and presenteeism). Benchmarking studies based on systematic literature reviews have also been used to provide firms with clear information on the burden of specific diseases and the impact a range of health investments has been shown to have on various value metrics [4].

But measurement is only part of the problem. Firms are interested in return on investment information. The multi-dimensional metrics used to measure the benefits of investing in health (sickness absence, staff turnover, employee morale, reduced risk, productivity, etc.) require valuation in terms of money metrics if they are to be incorporated into cost–benefit estimates of return on investment. Research on valuation methods is also evolving rapidly. Earlier work in this field used revealed preference approaches, which are based on the fact that individual’s choices often leave behind behavioural footprints, which convey information about preference and valuation. Regression analyses of risk and wages in labour markets (hedonic pricing models) have been used to estimate the value of risk reduction [5]. More recently there has been debate about whether the ‘human capital approach’ of simply multiplying work time lost by the wage rate should be replaced by a ‘friction-cost approach’ that acknowledges that firms typically find ways to respond to work loss [6].

Stated preference valuation methods have also been proposed. ‘Contingent valuation’ surveys eliciting employers willingness-to-pay for the whole spectrum of benefits derived from health investments (i.e. not just sickness absence) have been used to derive valuations for occupational health [7]. The role of quality-of-life measures in this type of economic evaluation has also been discussed [8]. Discrete choice experiments have also been used; this is a method that estimates the value of preventing one event relative to another, rather than asking respondents to provide direct monetary valuations of alternative preventative measures. The estimated ratios for alternative events are then applied to a ‘peg’ monetary valuation in order to estimate the corresponding monetary values [9].

The measurement and valuation of illness at work and strategic investment options to improve this is indeed a challenging, information-intensive research agenda. Without clear line of sight of the prize at the end of this process many executive decision-makers will be reluctant to engage in this research, which may be seen as a distraction from core business activity. Coherent communication of the business case for health investments at work is pivotal if firms are to fully embrace these concepts, and appreciate the value of the information that must be assimilated. Fundamentally, the health agenda needs to demonstrate alignment with strategic objectives of the business as a whole.

Many organizations manage strategy through the Balanced Scorecard approach [10], which sets out a framework for measuring a company’s mission and strategy in terms of four key perspectives: financial, customer satisfaction, enhancement of internal processes and the creation of capabilities in employees and systems. In each of these areas only a handful of metrics are identified which are most critical to the company's success. So the Balanced Scorecard tracks key elements of an organization’s strategy by allowing the organization to view its performance through multiple lenses. Scorecards succeed because they are simple.

One way for health to get on the corporate radar more would be through these strategic management tools, either by lobbying for inclusion of health-related metrics on organizational-wide scorecards or indeed, as HR have done, develop function-specific scorecards that can easily be adopted by those driving strategy.

If we are to get serious about achieving substantial investments in health at work, the bottom-up approach of building the evidence base and developing measurement and valuation methods must continue to progress but crucially we need to develop top–down approaches so that organizations can clearly identify how health metrics contribute to their strategic objectives.

Paul Miller
Health Economics Unit, University of Nottingham
e-mail: Paul.Miller@Nottingham.ac.uk

Sam Murphy
Business Health
e-mail: SPM@Business-health.co.uk

References


