

Applying the IH Value Strategy

Commercial business, government, and industrial organizations are under increasing pressure to be cost effective and efficient, particularly with a weakened economy and competitive global markets. In this environment, industrial hygienists are expected to present a balanced picture of the relationship between potential workplace health risks and the costs and benefits of mitigating those risks. To satisfy this new expectation and gain support for health protection, the industrial hygienist will benefit by developing a persuasive value proposition—that protecting worker health creates a competitive advantage for an enterprise by mitigating potential health hazards with effective and efficient solutions. This strategy will foster a perception of industrial hygienists as important partners with business executives in managing enterprise risks. Effective risk management, coupled with business case analysis of solutions for executive decision making, will increasingly represent the collective competitive advantage of our profession.

The new AIHA value strategy helps industrial hygienists organize their thinking as they develop a business argument to support their control measures or IH program recommendations. This business case summarizes the benefits that the decision maker will realize by approving a new proposal, augmenting an existing program, or continuing the existing activity without change. The decision maker's approval reflects willingness to invest resources, typically people and funding, in the IH program or activity to accrue the stated benefit. In its simplest form, that is all the strategy represents—a framework to logically develop and support a business case. The strategy is appealing because it can be applied and scaled to a range of projects, regardless of cost or complexity; to multinational companies and small companies; to government and not-for-profit organizations; and by senior and junior-level industrial hygienists alike.

The value proposition represents the sum total of benefits that industrial hygienists will return to customers for their risk control investments. Strong value propositions address the self-interest of the customer by answering the question, "What's in it for me, as an employer, if I implement your recommendation?" Historically, this has been one of the more difficult questions for industrial hygienists to answer. Typically, we have responded with rational technical and scientific answers, but these do not make a convincing business case. To be effective, our response needs to use language and arguments familiar to executive-level decision makers.

The AIHA Value Study has shown that persuasive value propositions describe the benefits of investing in risk control. (More information about the study can be found at www.ihvalue.org and in the June/July 2008 *Synergist*.) For employers, these benefits can be quantified in terms of the costs and savings associated with changes in an employee's health status, worker's compensation, health care, and the impacts of process changes as measured by the costs associated with capital equipment, increased revenues, decreased operating costs, avoided costs, and other financial performance metrics.



Qualitative benefits include changes in health status, such as decreased employee absenteeism and position turnover, and fewer disabling injuries or illnesses. Other qualitative benefits can result from changes in risk management and business processes, such as improved quality and customer retention, reduced cycle time, and reduced rework associated with poor product quality. These benefits can be translated into estimated financial values.

Making the Value Case

The AIHA value strategy has eight steps:

- Identify key business objectives and IH hazards
- Evaluate and prioritize value opportunities
- Assess risk reduction
- Select approach of the value proposition
- Identify changes
- Assess impacts
- Determine value
- Present value proposition

Step 1: Complete an inventory of work processes and operations, hazards associated with the work processes, and business objectives.

This step requires industrial hygienists to identify the business objectives that the work processes and operations are intended to satisfy. Understanding how the work process and operations support organizational priorities, goals, and objectives helps the industrial hygienist develop a broader perspective of how industrial hygiene programs and activities help achieve business objectives in several areas, including operations, growth, products and services, human resources, and finance.

Hazards are also characterized by their actual or potential business significance and worker risk. Screening hazards by specific criteria helps industrial hygienists identify the IH programs and activities most likely to mitigate the hazard and contribute value to business. The output from this step is an inventory of business objectives and hazards related to each work process and operation.

Step 2: Evaluate how the IH program or activity influences business objectives. Identify and prioritize value opportunities for further evaluation by balancing risk control solutions and business benefits.

By considering the relationships between business objectives, workplace hazards, risks, and control measure options, the industrial hygienist can prioritize the improvement opportunities. For example, an IH program of periodic exposure monitoring supports an overall Human Resources business objective of "creating a great place to work by protecting worker health." In this way, the IH begins to identify potential value streams that can help gain support for the recommended health protection interventions.

While the industrial hygienist can complete this analysis alone, it is recommended that a small, cross-functional team of internal stakeholders works to identify and prioritize value opportunities while balancing the health protection and financial objectives of the organization. Through this collaboration the industrial hygienist begins to build a consensus around the potential opportunities to reduce worker and operational risk and generate financial benefits.

Step 3: Identify the actual or predicted risk reduction(s) associated with implementation of an industrial hygiene program, activity, or control measure.

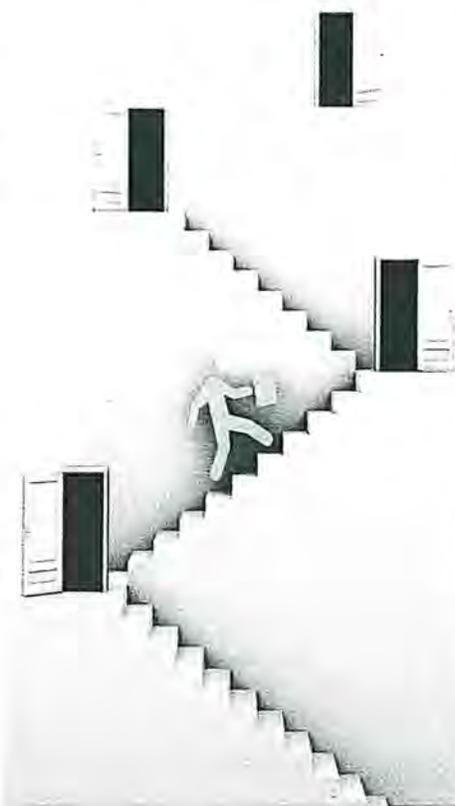
The risk reductions are part of the overall IH value proposition. The industrial hygienist conducts a baseline risk assessment for the potential opportunities identified in Step 2, followed by a risk assessment of alternative solutions for mitigating the hazard. The value strategy references two risk assessment methods: the method described in the AIHA publication *A Strategy for Assessing and Managing Occupational Exposures* (third edition) and the general risk assessment method contained in American National Standard Z10, *Occupational Health and Safety Management System*.

Step 4: Determine whether the value proposition would be most effective using a qualitative approach, a quantitative approach, or a combination.

This is a very important step in building the business case. In this step the industrial hygienist decides which type of data—qualitative or quantitative—should

be collected to support the business case. The decision should be based on these factors:

- visibility and importance of the project in the organization
- level of formality expected to justify financial investments in projects
- perception of risk
- compliance status
- availability of financial and non-financial data
- time available to collect supporting data



The industrial hygienist must exercise judgment regarding the thoroughness of the business case. For a several-thousand-dollar investment in ventilation system upgrades, showing a reduction in worker exposure to airborne hazards to achieve compliance, improve employee morale, and improve relations with a union may be enough justification to support the project. In contrast, a detailed quantitative and qualitative business case may be required to justify investing millions of

dollars in new IH programs and control measures to reduce workplace hazards; reduce operational risk, and improve productivity and product quality. In this case, the industrial hygienist may conduct a quantitative analysis, a qualitative analysis, or a combination.

Step 5: Identify the expected changes or impacts resulting from the IH program.

Both the qualitative and quantitative approaches describe changes in three areas: health status, the IH risk management process, and the business process. Identifying changes in these areas helps the IH understand and build the value proposition for the IH program, activity, or intervention.

Health Status. Identify changes in mortality, morbidity (lost time, restricted work activity and medical treatment cases), and other employee health changes such as stress or absenteeism.

IH Risk Management Processes. Examine whether there were changes in overall IH duties and responsibilities, administrative workload/recordkeeping, management of hierarchy of controls, management of monitoring/medical surveillance, and other IH risk management processes.

Business Process. Identify changes in process design, inputs (materials, equipment, staff resources), work activity flow and sequencing, process management, and other business process changes. The strategy allows the industrial hygienist to identify and extract any "confounding factors" that may produce the same result as the IH program or activity.

Step 6: Identify and assess impacts associated with changes in health status, the IH risk management process and business processes.

The quantitative approach measures the costs of impacts; the qualitative approach, in contrast, categorizes impacts as high, moderate or low and supplements this information with explanatory narrative and reasonable cost estimates. Capture as many impacts as possible, whether positive or negative, for each IH program, activity or intervention. Impacts to health status may include workers' compensation and other costs of illnesses, as well as changes in absenteeism, insurance premiums, labor turnover, medical removal, job transfer, training/re-training, and

worker productivity. Use defensible estimates where exact costs are not available.

For IH risk management, capture impacts to IH duties and responsibilities, administrative workload/recordkeeping, hierarchy of controls, monitoring/medical surveillance and other IH risk management processes. For example, an IH intervention may reduce the need for PPE and the downtime associated with donning and doffing it. These cost impacts can often be directly measured or estimated.

From a business process point of view, measure impacts across the previously identified change categories. For example, if an IH intervention eliminates process steps, measure or estimate productivity improvements such as enhanced cycle time, and cost savings such as reduced labor resource needs, and enter these calculations into the quantitative approach.

Step 7: Determine the overall value of the industrial hygiene program, activity or intervention.

Cost considerations include the following:

- cost of the intervention (the investment cost)
- cost savings/avoidances, new revenue generation, and other benefits resulting from the existing program or activity (also known as the base case)
- alternative programs or activities (also known as the comparison case)

Generally, the difference between the combined costs of operating a manufacturing or service process and managing an existing IH hazard (the base case) and the costs of operating it using an alternative approach (the comparison case) represent net reduced costs to the enterprise. The reduced costs minus the costs of the intervention represent cost savings, and the savings plus the other benefits represent the value realized. Simply put:

- base case costs – comparison case costs = reduced costs
- reduced costs – intervention costs = net savings
- net savings + new revenue + other benefits = value

Step 8: Prepare an executive summary presentation, a business case which describes the overall value of the IH program or activity.

This last step in the value strategy integrates the output from the previous steps into a business case that analyzes the improvement opportunity, alternative solutions, assumptions, constraints, costs, and benefits. The business case should recommend actions consistent with organizational business objectives and include the following key components:

- IH Program or Activity Description
- IH Hazard and Risk Reduction
- IH Opportunity
- Changes and Impacts
- Costs of IH Program or Activity
- Value Determination and Financial Metrics
- Cost Savings/Avoidance
- New Revenue
- Other Benefits
- Summary Statement and Recommendations

Reducing Hazards and Increasing Value

A good business case describes how a health protection intervention or new IH program will reduce workplace hazards and contribute to business objectives by creating a competitive advantage for the organization. By using the value strategy to develop a business case, industrial hygienists position themselves as essential members of the executive decision making team and demonstrate that worker health protection and business objectives are mutually beneficial. ✓

Michael T. Brandt is the technical chief-of-staff for operations at Los Alamos National Laboratory and Vice President of AIHA.

Elyce A. Biddle is a senior research economist within the Division of Safety Research at NIOSH and on assignment to Organization Resource Councilors, Washington, DC.

Timeline for Value of the Profession Study

AIHA's Value of the Profession Study addresses the simple but vital need to quantify what IHs have known for years—that IH programs provide a return on investment for businesses. In 2003 and 2004, AIHA presidents Thomas Grumbles and Donna Doganiero agreed to focus on the study during their terms in office.

In 2005, AIHA convened a panel to determine what success might look like if research was undertaken. Chaired by Grumbles, the panel decided, after much discussion, to limit research to industrial hygiene and occupational health.

Following are descriptions of major events in the development of the Value of the Profession Study:

- **January 2005:** The AIHA board approves the hiring of Hill and Knowlton, an international communications consultancy, to determine research possibilities.
- **August 2005:** Hill and Knowlton present their report to the AIHA board. The board agrees to develop an RFP for research proposals with Hill and Knowlton's assistance.
- **January to May 2006:** The RFP is developed and sent to more than forty organizations. The board selects EG&G and their subcontractor, ORC Worldwide. Their research results show difficulty in isolating IH/OH data from environmental, safety, and occupational health data. The available data is focused mainly on short-term impact (acute events, incidents, and accidents), with no focus on long-term health impacts and benefits.
- **June 2006 to April 2008:** AIHA board and senior AIHA staff manage and track research progress.
- **June 2008:** Value of the Profession Study results unveiled at AIHce in Minneapolis.



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