



Integrating Health With Safety

Now Is the Time

By E. Andrew Kapp and Ahreum Amy Han

Integrated workplace health protection and promotion is defined in a 2011 article as “the strategic and systematic integration of distinct environmental, health and safety policies and programs into a continuum of activities that enhances the overall health and well-being of the workforce and prevents work-related injuries and illnesses” (Hymel, Loeppke, Baase, et al., 2011, p. 695). Since then, a body of evidence has grown that supports the underlying concept that an integrative approach to workers’ safety and health is good for employees and for an organization’s bottom line.

Cooklin, Joss, Husser, et al. (2016), found that integrated approaches demonstrate measurable improvements to individual safety, health and well-being among employees of the companies examined. In another example, a meta-analysis of 17 published studies encompassing both OSH and wellness (health promotion) across a wide range of U.S. industries, Anger, Elliot, Bodner, et al. (2015), found that all but one of

the 17 intervention programs showed improved risk factors for injuries and/or chronic diseases among participating employees, with four demonstrating improvements in 10 or more health risk factors (Anger, et al., 2015).

Health risk factors are an individual’s behaviors, characteristics or exposures that increase the likelihood of developing a disease or injury. Reducing risk factors by, for example, maintaining a healthy weight, meeting guidelines for physical activity and eliminating tobacco use have all been associated with lower risk for diagnosed chronic health conditions, better functional outcomes and lower rates of preventable mortality (Pronk, 2015). In addition to potential health consequences to the individual, the prevalence of risk factors in an employee population at or above that of the U.S. population (Table 1) represents a serious risk to the employer’s productivity and profitability.

Business owners investing in integrated safety and health are also reaping the benefits of a safer and healthier workforce. Fabius, Thayer, Konicki, et al. (2013), tracked the stock market performance of publicly traded companies with strong health protection and promotion programs, as demonstrated by receiving the American College of Occupational and Environmental Medicine’s Corporate Health Achievement Award. Using simulation-based past market performance, a theoretical initial \$10,000 investment in these publicly traded companies over a 13- to 15-year span was shown to outperform

IN BRIEF

- **An integrative approach to the safety and health of a workforce is good for both employees and the bottom line.**
- **Current conditions such as skyrocketing healthcare costs, an aging workforce, continuing declines in the standard of health and stagnant rates of the most severe injuries underscore the importance of integrating safety and health.**
- **To successfully integrate health with safety, employers must overcome obstacles that keep these two functions historically separate in organizations and society.**
- **A recent UL Inc./ASSE study has identified eight key practices that successful companies implement to achieve integrated safety and health, and reap the rewards from doing so.**

tion) across a wide range of U.S. industries, Anger, Elliot, Bodner, et al. (2015), found that all but one of

E. Andrew Kapp, Ph.D., CSP, CHMM, is research manager for workplace health and safety at Underwriters Laboratories (UL) Inc. He is a visiting senior lecturer in Occupational and Environmental Safety and Health at the University of the West Indies, serves as a member of ASSE’s Editorial Review Board, and is a member of the Institute of Hazardous Materials Management Certified Hazardous Materials Manager Examination Committee. As university faculty, Kapp spent the past 25 years conducting research and publishing papers and book chapters on safety climate, leadership and safety management. He holds a Ph.D. in Industrial Engineering from University of Wisconsin-Madison, an M.S. from University of Southern California and a B.S. from Vanderbilt University. Kapp is a profes-

sional member of ASSE’s Greater Chicago Chapter and a member of the Society’s Academics Practice Specialty.

Ahreum Amy Han, M.S., is a data analyst at UL Inc., where she conducts safety science research using data analytics focusing on the areas of fire safety, firefighter safety and integrated health and safety. Han holds an M.S. in Applied Mathematics from DePaul University and a B.S. in General Mathematics from Illinois State University. She is a lecturer in the Department of Information Systems and Applied Technologies at Southern Illinois University at Carbondale, and an advisory board member in the Department of Mathematical Science for graduate studies of applied mathematics and statistics at DePaul University.



the S&P 500 by 77% (Fabius, et al., 2013). Although correlation is not causation, the results of the S&P 500 studies suggest that companies focusing on an integrated safety and health approach can achieve greater investor value.

Now Is the Time to Move Toward Integrated Safety & Health

Uniting the traditionally separate functions of OSH, health promotion and even health benefits management has always made good sense for employee and employer alike, but an even greater sense of urgency exists than ever before. A unique confluence of social, economic and demographic forces is acting on the U.S. working population making this transition toward integrated safety and health even more imperative.

According to Mercer (2015), the cost of employer-provided health benefit plans has increased every year since 1997, and the projected rate of increase appears to be rising over the next few years. The U.S. workforce is aging; according to Bureau of Labor Statistics (BLS), the ≥ 55 -years-old group is expected to increase from 21.7% of the labor force in 2014 to nearly 25% in 2024 (Toosi, 2015). In addition to these disconcerting trends, the generally poor baseline health condition of the U.S. adult population is expected to continue into the foreseeable future.

All this points toward surging health-related costs, which are increasingly borne by the employer in terms of both direct healthcare costs and indirect productivity loss costs. However, the indirect costs are of greatest concern. Loeppke, Taitel, Richling, et al. (2007), estimate that on average for every \$1 employers spend on healthcare for sick or injured employees they pay \$2.30 in indirect costs primarily in the form of employee absenteeism and productivity loss for those who remain at work in a degraded condition.

While the cases and costs of poor health rise, the nation has maintained stagnant workplace injury

rates. According to BLS (2015), between 2011 and 2014 the days away, restricted and transfer case rate dropped a mere 0.1 per 100 full-time employees, and the days away from work case rate has remained unchanged. These are not isolated facts. Growing evidence exists that both the frequency and severity of injuries (e.g., duration of recovery, likelihood of full recovery, chances of medical complications) increase as the number of health risks of the injured employee increases.

In a study involving a large U.S.-based employer, the group of employees with five or more health risk factors had nearly 300% more workers' compensation claims than employees with two or fewer risks (Kuhnen, Burch, Shenolikar, et al., 2009). Employees with three or four health risks had nearly 150% more claims than the low-health-risk group despite adjustment for demographic factors including gender, race, age, tenure, salary level and employee job category. New approaches are needed to break through these stagnant injury rates and continue the progress made up to the early to mid-2000s, and integrating safety and health offers one promising tool to do so.

Success Factors for Integrating Safety & Health

Integrated safety and health offers employers an opportunity to address the health risk factors that affect employee health while improving their organizations' safety performance and productivity. Despite the significant opportunities that integrated safety and health offers, impediments exist to the integration of these two historically separate functions. For the better part of the 20th century, different professions have evolved independently of each other to manage OSH, and employee health and wellness. Separate governmental entities regulate employer activity in these two areas. Even society's culture seems to favor a sharp divide between workplace safety and personal health.

However, successful integration of health protection and health promotion efforts can and does occur. Organizations can employ certain practices that will enhance the process and outcome of integration. With solid evidence on the influence that these practices have on successful safety and health integration efforts, organizations can be better prepared for safety and health integration efforts, and expect better outcomes from their efforts.

Research on the Practices That Facilitate Integrated Safety & Health

In a case study involving a large U.K. public-sector organization, Mellor and Webster (2013) identified as the key facilitators of successful integration: strong senior leadership commitment; integration of the company's safety, health and well-being strategy into wider OSH systems and business plans; involvement and coordinated effort of stakeholders; and intensive communications across multiple channels. Challenges to integration revolved around the integration of health protection and promotion into a coherent whole, striking the right balance between a focus on occupation-

TABLE 1

Prevalence of Common Health Risk Factors

Health risk	Percent of U.S. population at risk
Smoking	19.0%
Insufficient exercise	23.5%
Obesity	29.4%
High cholesterol	38.4%

Note. Adapted from America's Health Rankings (2014 ed.), by United Health Foundation, 2015.

FIGURE 1

Distribution of Companies by Industry

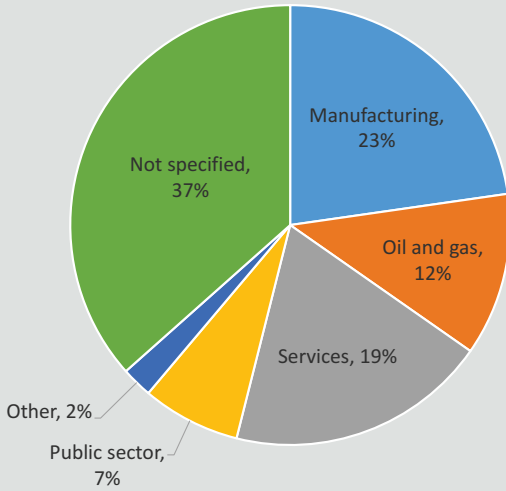


FIGURE 3

Responses to "My Company Has an Integrated Health & Safety Program"

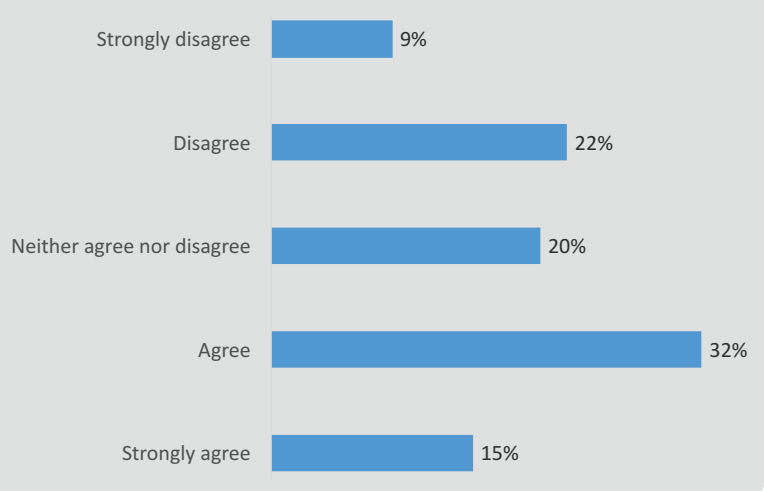


FIGURE 2

Distribution of Companies by Size

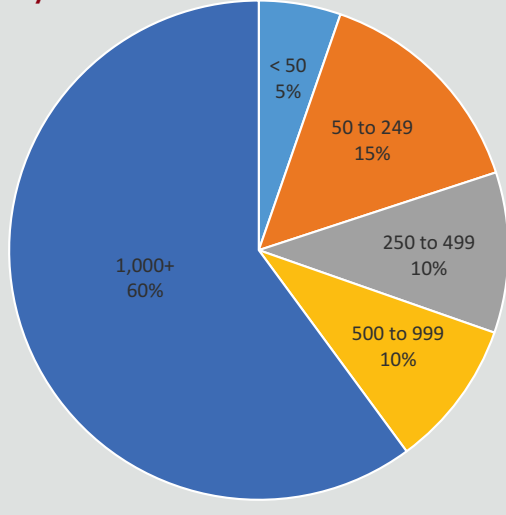
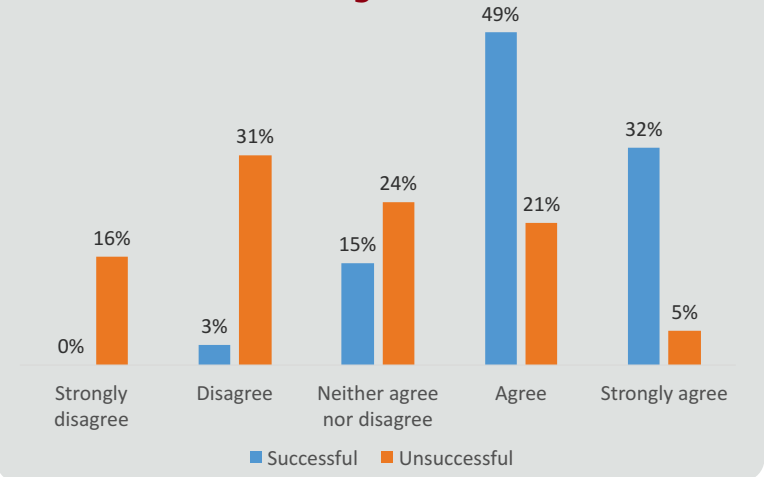


FIGURE 4

Top Management Commitment to Integrated Safety & Health in Successful vs. Unsuccessful Programs



al risks and lifestyle risks, and the acceptance by managers of their role in the integrated effort.

In a summative review of the U.S. literature, Sorensen, McLellan, Dennerlein, et al. (2013), recognized several supportive organizational practices that led to successful integrated health protection and health promotion initiatives. These included training and accountability for staff members with responsibility for the integrated effort, management and employee engagement, and integrated evaluation of the system.

Building on this research, Underwriters Laboratories (UL) Inc. and ASSE conducted a survey to examine the experiences of companies integrating safety and health, and identified practices that these organizations perceive as facilitating

successful integration. Participants were provided with definitions of the terms used in the survey, including having integrated safety and health delineated as an integrated program covering employee wellness, OSH and employee health benefits. The online survey yielded 483 responses from ASSE members. Removing incomplete entries yielded a final sample size of 387 responses. The sample represented a broad cross-section of U.S. employers including a range of industries and sizes (Figures 1 and 2).

Survey item responses were collected as the level of agreement regarding the presence of an individual practice facilitating or inhibiting the successful integration of safety and health using a five-point Likert scale: 1) strongly disagree; 2) disagree; 3)

neither agree nor disagree; 4) agree; 5) strongly agree. The authors took *strongly agree* and *agree* responses to be the indicators of a successfully integrated program. Likewise, *strongly disagree* and *disagree* responses were indicative of unsuccessful integration efforts. What follows are the results laid out in terms of those practices associated with successful integration programs (no statistically significant inhibiting factors were identified), and the differential adoption of those practices across successful and unsuccessful organizations.

Results

Overall, 47% of respondents either agree or strongly agree that they have an integrated safety and health program; 31% disagree or strongly disagree; and 20% are ambivalent (Figure 3). (*Note:* Because of rounding, components may not add to totals.)

Top management commitment is a critical factor for successful integration of safety and health: Of respondents whose companies have a successfully integrated program, 82% agree or strongly agree that senior management is committed. This compares to only 26% of respondents whose companies have an unsuccessfully integrated program who felt as strongly about top management commitment in their organizations (Figure 4). Top management commitment can take many forms, but one concrete example is the mention of the integrated safety and health initiative, and the organization's performance against goals at quarterly or annual senior leadership business briefings.

Having a well-written policy is another vital factor for successfully integrating safety and health, with 77% of respondents in successful companies agreeing or strongly agreeing that they have a well-written policy. Just 24% of those in unsuccessful companies felt as intensely about their written policy (Figure 5). One important element of a well-written integrated safety and health policy is a purpose statement tying integrated safety and health into the larger business strategy, mission or vision. Another crucial aspect is having the senior-most company official sign the policy, which clearly displays and reinforces top management commitment.

Incorporating integrated safety and health into the larger business plans is an important determinant of successfully integrating safety and health, according to survey respondents. A massive 86% of respondents in successful companies agree or strongly agree that their integrated safety and health program directly supports one or more of the company's larger business plans or strategies. Less than one-quarter (24%) of those in unsuccessful companies feel as strongly about the incorporation of integrated safety and health into larger business plans (Figure 6). These data reflect the importance of tying integrated safety and health into larger business strategy, mission or vision. Beginning with the formal policy document, but extending throughout internal and external communications, the organization must reiterate the connection between the integrated safety and health initiative and overall organizational success.

FIGURE 5

Well-Written Policy for Integrated Safety & Health in Successful vs. Unsuccessful Programs

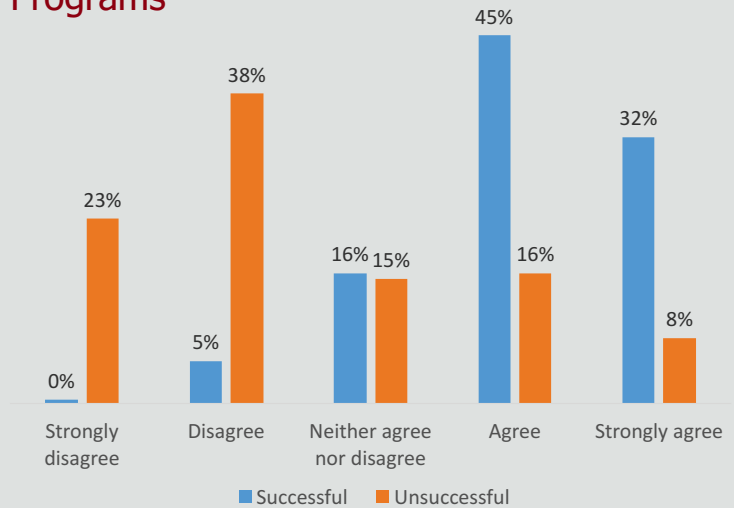
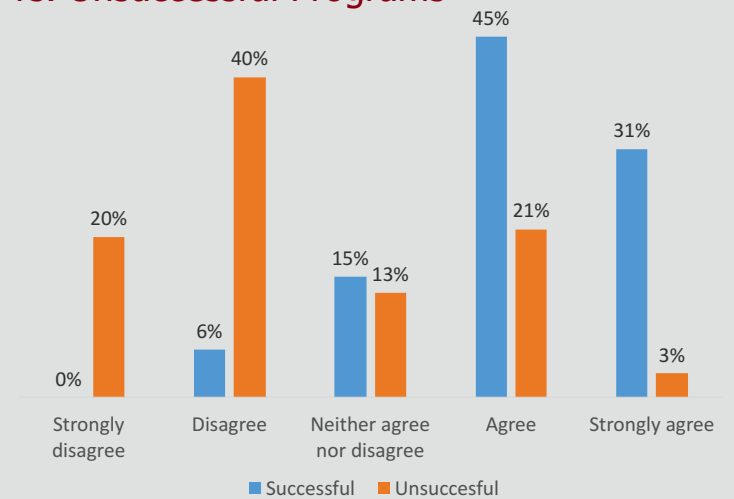


FIGURE 6

Integrated Safety & Health Incorporated Into Larger Business Plans in Successful vs. Unsuccessful Programs



While simply spending money on a problem will not automatically solve it, having a sufficient budget for integration efforts is certainly a factor in success. In successful companies, 72% of respondents agree or strongly agree that they have a sufficient budget, whereas only 26% of respondents in unsuccessful companies feel as strongly about the sufficiency of financial resources dedicated to integrated safety and health (Figure 7, p. 48). As with any organizational initiative, the integration of safety and health must be sufficiently staffed and funded to afford the opportunity for success. Through the redirection of existing resources applied to isolated safety and health issues, and the selected application of new resources, most

FIGURE 7

Sufficient Budget for Integrated Safety & Health in Successful vs. Unsuccessful Programs

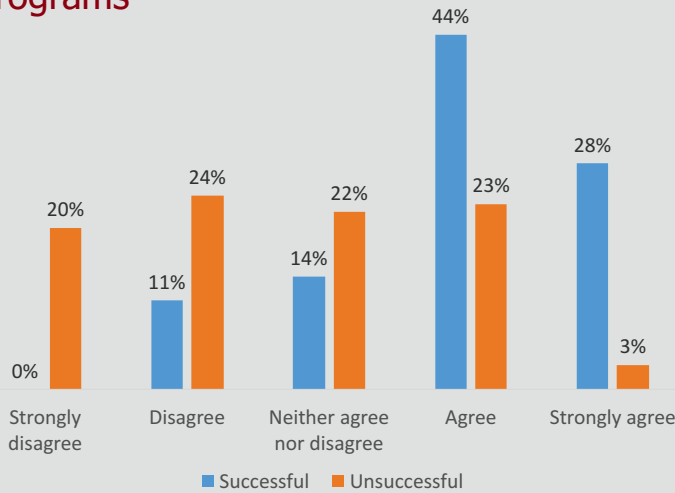
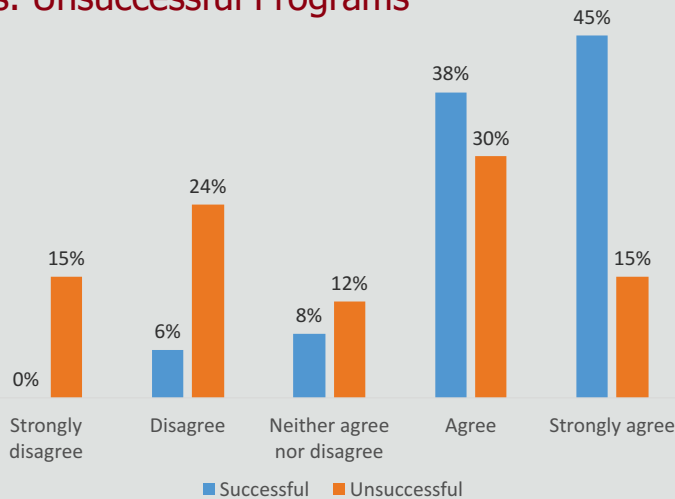


FIGURE 8

At Least One Responsible Person for Integrated Safety & Health in Successful vs. Unsuccessful Programs



organizations should not have difficulty finding sufficient resources for integrated safety and health.

Having one or more people in the organization with responsibility for integrated safety and health is a vital consideration for successful integration. In successful companies, 83% of respondents agree or strongly agree. Among their less successful counterparts, 45% feel as strongly about the presence of one or more people in the organization with responsibility for the integrated function (Figure 8). Close collaboration among various organizational functions including safety, health benefits management and risk management is required for successful integration of safety and health. While integrating these disparate functions does not require their consolidation under a single person, at least frequent meetings and shared responsibility for safety and health outcomes appear necessary.

Providing frequent communications about integrated safety and health is also a best practice of

successful companies. In successful companies, 80% of respondents agree or strongly agree that their company uses frequent communications about the integrated safety and health program to keep employees informed. Only 21% of respondents in unsuccessful companies feel that their companies engage in frequent communications with employees (Figure 9).

Among successful companies, 88% feel that their employer uses multiple means of communicating with employees. This compares to just 36% of respondents from unsuccessful companies who believe their companies use multiple means of communicating information on integrated safety and health to employees (Figure 10). Both the frequency of communications and the use of multiple modes of communication are important for informing employees of the various offerings under an integrated safety and health initiative, and for motivating them to participate. The most successful employers observed used bulletin boards, newsletters and e-mail/company intranet to spread the word in their organizations.

Finally, regarding the commitment of middle management and frontline supervisors, 64% of those from successful companies agree or strongly agree that midlevel managers and supervisors are committed to integrated safety and health. Only 21% of those from unsuccessful programs feel as strongly about the commitment from middle managers and supervisors (Figure 11).

The importance of top management commitment is frequently discussed in safety. Indeed, it was the first of the eight critical success factors for companies wishing to integrate safety and health. However, the importance of senior leadership commitment alone does not supplant the need for commitment across all the leaders of the organization. Companies most successful at integrating safety and health have visible commitment across the board, so that employees get the consistent message that integrated safety and health is the way the organization protects employees as well as the bottom line.

Conclusion

An integrative approach to the safety and health of a company's workforce is good for employees and for the bottom line. The convergence of several forces in the U.S. (increasing cost of health-care, aging workforce, decline in baseline health of the population) is making this transition toward integrated safety and health even more imperative. However, obstacles exist for organizations seeking to integrate these two historically separate functions. To be successful, employers must overcome these barriers by implementing practices shown to facilitate integration efforts.

This research has identified eight key practices that exemplify successful integration efforts: 1) top management commitment to integrated safety and health; 2) a well-written integrated safety and health policy; 3) integrated safety and health incorporated into larger business plans; 4) a suffi-

cient budget for integration efforts; 5) one or more people in the organization with responsibility for integrated safety and health; 6) frequent communications about integrated safety and health; 7) use of multiple means of communicating information about integrated safety and health; and 8) middle managers and frontline supervisors committed to integrated safety and health. Each of these factors can and should be adopted by an organization seeking to integrate safety and health. **PS**

References

- Anger, W.K., Elliot, D.L., Bodner, T., et al. (2015). Effectiveness of Total Worker Health interventions. *Journal of Occupational Health Psychology, 20*(2), 226-247.
- Bureau of Labor Statistics (BLS). (2015). Employer-reported workplace injuries and illnesses, 2014. Retrieved from www.bls.gov/news.release/archives/osh_10292015.pdf
- Cooklin, A., Joss, N., Husser, E., et al. (2016). Integrated approaches to occupational health and safety: A systematic review. *American Journal of Health Promotion* (In press). doi:10.4278/ajhp.141027-LIT-542
- Fabius, R., Thayer, R.D., Konicki, D.L., et al. (2013). The link between workforce health and safety and the health of the bottom line: Tracking market performance of companies that nurture a "culture of health." *Journal of Occupational and Environmental Medicine, 55*(9), 993-1000.
- Hymel, P.A., Loepke, R.R., Baase, C.M., et al. (2011). Workplace health protection and promotion: A new pathway for a healthier—and safer—workforce. *Journal of Occupational and Environmental Medicine, 53*(6), 695-702.
- Kuhnen, A.E., Burch, S.P., Shenolikar, R.A., et al. (2009). Employee health and frequency of workers' compensation and disability claims. *Journal of Occupational and Environmental Medicine, 51*(9), 1041-1048.
- Loepke, R., Taitel, M., Richling, D., et al. (2007). Health and productivity as a business strategy. *Journal of Occupational and Environmental Medicine, 49*(7), 712-721.
- Mellor, N., & Webster, J. (2013). Enablers and challenges in implementing a comprehensive workplace health and well-being approach. *International Journal of Workplace Health Management, 6*(2), 129-142.
- Mercer. (2015). With the excise tax in their sights, employers hold health benefits cost growth to 3.8% in 2015. Retrieved from www.mercer.com/newsroom/national-survey-of-employer-sponsored-health-plans-2015.html
- Pronk, N.P. (2015). Workforce fitness: Description, contextual issues and implications for public health. *Frontiers in Public Health Service Systems Research, 4*(5), 19-24.
- Sorensen, G., McLellan, D., Dennerlein, J.T., et al. (2013). Integration of health protection and health promotion: Rationale, indicators and metrics. *Journal of Occupational and Environmental Medicine, 55*, S12-S18.
- Toosi, M. (2015, Dec.). Labor force projections to 2024: The labor force is growing, but slowly. *Monthly Labor Review*. Retrieved from www.bls.gov/opub/mlr/2015/article/labor-force-projections-to-2024-1.htm
- United Health Foundation. (2015). *America's health rankings* (2014 ed.). Retrieved from www.americashealthrankings.org/reports/annual

FIGURE 9

Frequent Communications About Integrated Safety & Health in Successful vs. Unsuccessful Programs

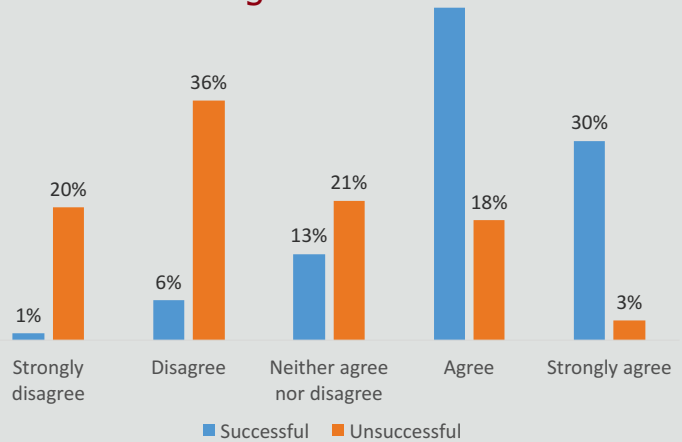


FIGURE 10

Multiple Methods of Communication About Integrated Safety & Health in Successful vs. Unsuccessful Programs

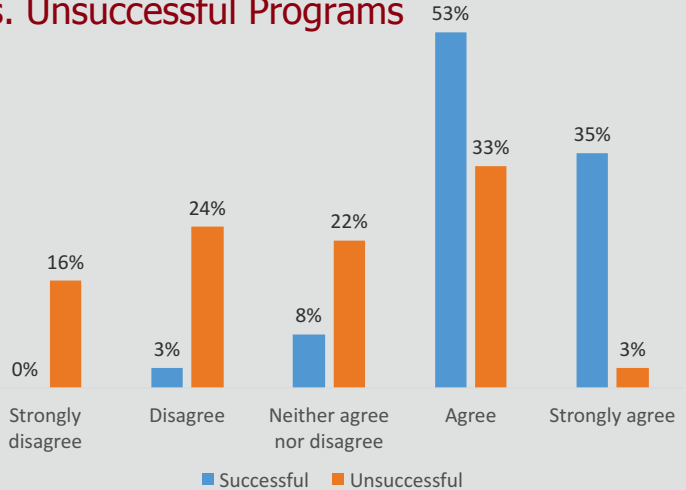


FIGURE 11

Middle Managers & Supervisors Committed to Integrated Safety & Health in Successful vs. Unsuccessful Programs

