JHSC meetings and occasionally took part in committee inspection tours to identify hazards. He also worked with Tess to make sure that OHS fixes were acted on promptly.

ORGANIZATIONAL RESPONSIVENESS

Supporting an initiative to address ergonomics for the first time in the plant's history, Victor freed up funds to bring in an ergonomics consultant, who helped identify hazard control measures such as changing welding guns and providing lighter air helmets for welders.

Spirit of cooperation takes hold

Metal Manufacturer is a "completely different plant" now, says one worker. There are machine guards, limit switches, safety poles to support stacked product, table guards to prevent product from falling, mesh on the sides of open shelves, extra electronic eyes, capacity labels on shelves, industrial curtains separating the welding areas, floor paving at an outdoor storage area where falling steel was once a concern. The list goes on. And along with the decreased hazards, the firm saw claims rates fall from an average of 39 claims per 100 FTEs in the early 2000s (2002 to 2004) to an average of five in the years ending the decade (2009 to 2010).

DECREASED OHS RISK

DECREASED INJURY, ILLNESS

The firm is now at a point where "you see things before it happens," says one worker. Concerns brought up at monthly JHSC inspections get followed up. A new-found spirit of cooperation between management and workers on the committee has taken hold, says another worker, as has a sense of empowerment. Co-workers feel comfortable giving feedback to each other about the safety of their work practices—and to receive those comments in turn. It became a place where a message about shared responsibility is being echoed by people in different roles: "Safety is not just my job, it's everyone's job. We have to work together to make this a better plant."

POSITIVE SOCIAL DYNAMICS

About the breakthrough change study

Past research has identified the characteristics of firms that perform poorly or well with respect to work-related injury and illness prevention, but it hasn't shown what it takes to go from one to the other. This study, led by Dr. Lynda Robson, a scientist at the Institute for Work & Health (**www.iwh.on.ca**), aimed to help fill that gap.

Robson and her team defined 'breakthrough change' (BTC) as large, intentional, firm-level improvement in the prevention of injury or illness. To find BTC firms, the team used records from Ontario's Workplace Safety and Insurance Board (WSIB) to identify organizations that, in just 10 years, went from being among the 50 per cent in their sector with the highest claims rates to among the 20 per cent in their sector with the lowest claims rates. The improvements had to be sustained for at least three years and not result from restructuring, claims management or by chance.

Health and safety consultants from Workplace Safety & Prevention Services (**www.wsps.ca**) and Public Services Health & Safety Association (**www.pshsa.ca**) then approached the BTC firms and, ultimately, four agreed to take part as case studies. For each case study, the research team interviewed 10 people in various roles, as well as collected additional information such as WSIB claims records, Ministry of Labour enforcement records, joint health and safety committee minutes and other OHS-related documents.

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Breakthrough Change in OHS: Case Study Series

METAL PARTS MANUFACTURER

New OHS coordinator helps bring in health and safety knowledge and foster positive dynamics

A metal manufacturer went from failing a government agency health and safety audit to creating an environment in which workers are empowered to raise safety concerns, knowing they'll be acted on quickly—all part of its remarkable trajectory of 'breakthrough change.'

At Metal Manufacturer*, which employs 200 people, the work is physical and hard. Manufacturing metal machinery parts involves grinding, bending and welding metal, with the help of cranes and hoists to move material around. Typical injuries include eye injuries, lacerations, pinched fingers, injuries from falling objects, abrasions, burns, as well as musculoskeletal disorders in the hand, arm and lower back.

In the mid-2000s, Metal Manufacturer had a poor record on health and safety that went back many years. Though a joint health and safety committee (JHSC) had been in place since 1980, attempts to improve health and safety had typically been a "knock-down, drag-out fight," according to a long-time worker. Worker complaints raised at committee meetings were often not documented or tracked to resolution. The meetings themselves were often cancelled when important operational issues came up.

This case study illustrates how one firm turned around a poor occupational health and safety record. The embedded arrows point to parts of the firm's story that illustrate a model of 'breakthrough change.' This model was developed as part of a research project conducted by the Institute for Work & Health. The model is described inside. The research project is described on the back page.

*Pseudonyms are used to protect participants' confidentiality.

After a serious accident in 2001, in which a worker's foot was crushed, the firm came under the scrutiny of the Ministry of Labour, which paid multiple visits and wrote many orders. But even then, improvements didn't take hold. The firm failed a Workwell health and safety audit performed by the Workplace Safety and Insurance Board, prompting managers to bring in a human resources supervisor to fill a position that had been left vacant for a couple of years.

Another effort to improve ways of doing things was set in motion when Metal Manufacturer was bought by a U.S. company. Mary*, the plant manager installed by the new owners in 2004, introduced a series of measures aimed at raising operational performance. There were new standard operating procedures, more enforcement of company rules, a move toward rewarding performance over seniority, among others.

SIMULTANEOUS OPERATIONAL IMPROVEMENT

This new emphasis on performance improvement, though possibly laying the groundwork for health and safety improvements later on, was not sufficient to bring about a notable change in OHS performance at the time. Sally, the new HR supervisor, had neither the specialized OHS knowledge nor the time on top of her HR duties to do more than basic OHS functions—for example, following up on actions and making sure JHSC meetings took place.

When the firm faced a second Workwell audit, Sally did put together an OHS manual that made sure the firm passed the audit, but the program spelled out in the manual was not fully implemented. Even in the years following the foot-crushing injury, some very basic health and safety issues were not being addressed. Some machine guards were still missing, signage was not put up, safety glasses were worn on tops of heads instead of over the eyes.

Hiring of OHS coordinator a turning point

At one point, a Ministry of Labour inspector was so frustrated over a lack of action on an OHS order that he brought his concerns to Metal Manufacturer's corporate head office. Head office intervened and instructed the plant to "do something." That was when the firm decided to hire a full-time health and safety specialist, and truly initiated its 'breakthrough change.'

EXTERNAL INFLUENCE

ORGANIZATIONAL MOTIVATION

KNOWLEDGE TRANSFORMATION LEADER

As the plant's first OHS coordinator, Tess brought to the role her college training in workplace health and safety, her experience elsewhere as a JHSC worker representative and union trainer, as well as her passion for OHS. She soon established an OHS management system. She also had personal warmth, which allowed her to establish effective relationships with managers and workers alike. As well, she displayed an astute understanding of the process of personal change.

NEW OHS KNOWLEDGE

CONTINUOUS IMPROVEMENT PATTERN

POSITIVE SOCIAL DYNAMICS

For example, when warned of certain people who were described as potentially difficult, she made a point of meeting those people early on, thereby neutralizing their potential opposition. She also sought out conversations with people, expressing an eagerness to learn about their jobs and the hazards involved. She built trust with workers by receiving their complaints in private and keeping the source confidential when bringing the issues forward. By listening and acting on people's concerns, Tess was creating a feedback cycle "of people being willing to talk more, and to expect more."

ORGANIZATIONAL RESPONSIVENESS

Tess also gained the trust of supervisors and managers, who sought her out for information and increasingly referred issues to her as they arose. Tess motivated supervisors to enforce health and safety rules by persuading them with arguments about their legal obligations and the cost of injuries to the firm. She took time to explain to people, sometimes one-on-one, the rationale for new rules. She also knew to appeal to emotions.

When promoting the use of personal protective equipment, for example, she would ask people how they would feel if their child or grandchild was playing hockey with no equipment. Putting into action a principle in organizational change of "early wins," Tess started out working on the little but most visible changes first, such as installing machine guards. It only took a few years for momentum to build.

As effective as Tess was, management support was also an important element in the firm's turnaround. Victor, a new plant manager replacing Mary, showed his support of OHS through words and actions. He always mentioned OHS in monthly staff meetings. He sometimes attended

SUPPORTIVE INTERNAL CONTEXT

The breakthrough change process: How it works

Although the details differ, companies that go from being not-so-good to very good OHS performers tend to follow a similar path, as shown in the model below. The change occurs in three phases: initiation, transformation and outcome.

Initiation: Breakthrough change begins with some kind of external influence acting on the organization, ranging from a Ministry of Labour order to a demand from a key buyer for improved OHS. Whatever the source, this influence brings three things into play within the company: organizational motivation to do better at OHS, an influx of new OHS knowledge previously unknown to the organization (e.g. from a health and safety consultant or through the hiring of a new OHS specialist) and the integration of that new knowledge into policy and practice through the work of a knowledge transformation leader. This leader—the OHS coordinator, human resources manager, owner or some other person inside the workplace—tends to be a 'people person' who is persistent, competent, trusted and organized.

Transformation: The organization's OHS performance starts to improve because of five key elements. (1) The organization responds to OHS concerns (organizational responsiveness) and the workforce takes note, resulting in its increased participation in health and safety. (2) An energy develops within the workplace (positive social dynamics) involving management-worker collaboration, worker empowerment and individual passion for health and safety. This energy may be especially evident in a reinvigorated joint health and safety committee. (3) The workplace develops a continuous improvement pattern, in which improvements in OHS continue despite what has already been achieved. (4) At the same time, the organization makes improvements in areas other than OHS that also lower risk (simultaneous operational improvement)—e.g. engaging in lean, quality and organizational excellence initiatives. (5) Finally, there is a positive working environment (supportive internal context) characterized by good management-worker relations, low turnover, good communications and a supportive senior management team that allows both time and money to be spent on OHS initiatives.

Outcome: The organization reaps the rewards of its change efforts. What was once new OHS knowledge becomes integrated OHS knowledge. New OHS policies and procedures are in place. OHS training is ongoing. Both managers and front-line staff engage in new OHS practices, such as communicating regularly about OHS, and identifying, assessing and controlling hazards. And people at all levels of the organization are held responsible and accountable for health and safety. This results in decreased OHS risk, which in turn leads to decreased injury and illness related to work.