

# **SUMMARY OF INJURY AND INJURY PREVENTION: WOMEN IN WORK RELATED TO MINING**

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Building on previous research, Prairie Women's Health Centre of Excellence (PWHCE) delved deeper into investigating the key risk factors for women working in mining. The current project used a gendered lens to explore health and safety concerns across positions, seeking to learn about making safer and more supportive environments to prevent injuries in the expanding mining industry in northern and western Canada.

## **Canada's Mining Industry**

Mining employs 26% of the total workforce: more than 360,000 Canadians, across 840 mines. Women comprise 14% of the workforce in mines, largely in administrative and culinary support roles (at 72% and 73% respectively). Women are underrepresented in trade positions; only 1% of industrial and heavy equipment mechanics and millwrights, and 4% of underground miners. Mining is dangerous work. In 2007, the rate of work-related injuries in the mining sector across Canada was 13 per 1000 employees. As of 2008, over 2500 cases of fatal and non-fatal injuries were compensated within mining and quarrying, of these cases, 134 involved women.

## **Research Findings**

While the sample size for this study was small (17 participants), women's experiences and perspectives on opportunities and challenges relating to workplace safety inform our understanding of this growing field. All participants worked full time and over half of the women performed some shift work, often necessitating long distance commutes. The majority of participants were engineers and geologists, but others had jobs in equipment operation, health and safety coordination, training and mine rescue.

Women reported that all training they received was with coed groups, there was no specific training targeted for women in their positions. Women who work underground all received workplace health and safety training, including online training, certifications, computer simulation and job shadowing. Before entering the mine, one of the first issues covered is chemical awareness via Workplace Hazardous Materials Information System training. Communications with onsite colleagues was a fundamental component. Women in surface positions tended to receive less intensive training in workplace health and safety, mostly focusing on making themselves visible when anywhere near large vehicles and traffic.

Health and safety training has evolved over the last several years, becoming more intensive and more formal, including continued testing, especially in the largest companies. The culture has shifted towards injury prevention. One woman noted that attitudes have shifted from "we're here to produce (but don't get hurt)" to "we're here to produce and do it safely". Most participants felt their safety training was adequate.

Women reported their number one health issue as ergonomics (from 12-14 hours either sitting throughout or standing throughout), followed by fatigue and depression, often related to the challenges inherent in shift work with long-distance commutes. Women often scheduled their work in order to plan for the lack of opportunities to take a break and go to the washroom. Boredom was one issue, both during work shifts and during downtime as camp. Sleep was often disrupted. While fatigue was viewed as part of the job, women felt the demands more acutely as they aged, and risked burnout.

Regardless of their training, most of the women had suffered a work-related injury. Injuries ranged from broken bones and sprains, crush injuries, back and shoulder injuries, chemical burns, leg edema and eye injuries. Less obvious injuries included food-borne illness, respiratory problems, stress, anxiety and ergonomic discomfort. Women stated that they were strongly encouraged to report injuries, but not all injuries were reported.

Women were often proactive in taking measures to prevent injury daily, seeking assistance when required. Discussions revealed an environment of trust and camaraderie, resting upon the individual thinking about whom and what was around them, continuing vigilance, and using common sense to stay safe. Underground roles meant that team members must use many vehicles for communications such as checking in by phone, having buddies, hand signals and nonverbal communication (such as stench gas as an alert system) in high noise areas.

## **Recommendations**

Overall, recommendations focussed on removing persistent gender-based barriers that challenge women from fully realizing the benefits of northern economies. Recommendations include both top-down industrial changes as well as more localized grassroots responses. All recommendations rest upon further in depth conversations with women employees in order to reshape the workplace, to prevent injuries and realize improvements in health.

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