

# Worker and Community-Based Action Research



**James Brophy & Margaret Keith**

# Who Calls the Shots!



# Sustainability of the Planet





**Why do workers need their own  
research?**

# Science Underestimates Workplace Disease and Injury

- **Gaps and limitations**
- **Science is rigid**
- **Acceptable risk**
- **Social class bias**



# Who Controls Science?



# “Manufacturing Uncertainty”

**Mixed  
messages  
confuse  
us**



# What Science Tells Us...*cont.*

**Pesticides do  
cause cancer**



**Pesticides  
DON'T cause  
cancer!**

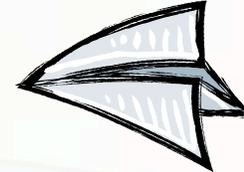
# What Science Tells Us...*cont.*

Canadian asbestos is **SAFE** to  
use



Canadian asbestos is **NOT SAFE**  
to use!

# What Happens to Evidence Showing Work Causes Disease?



# What Does Science Really Tell Us About Work and Health?



# Conclusion?

***Workers Need  
Their Own Health  
and Safety  
Research!***



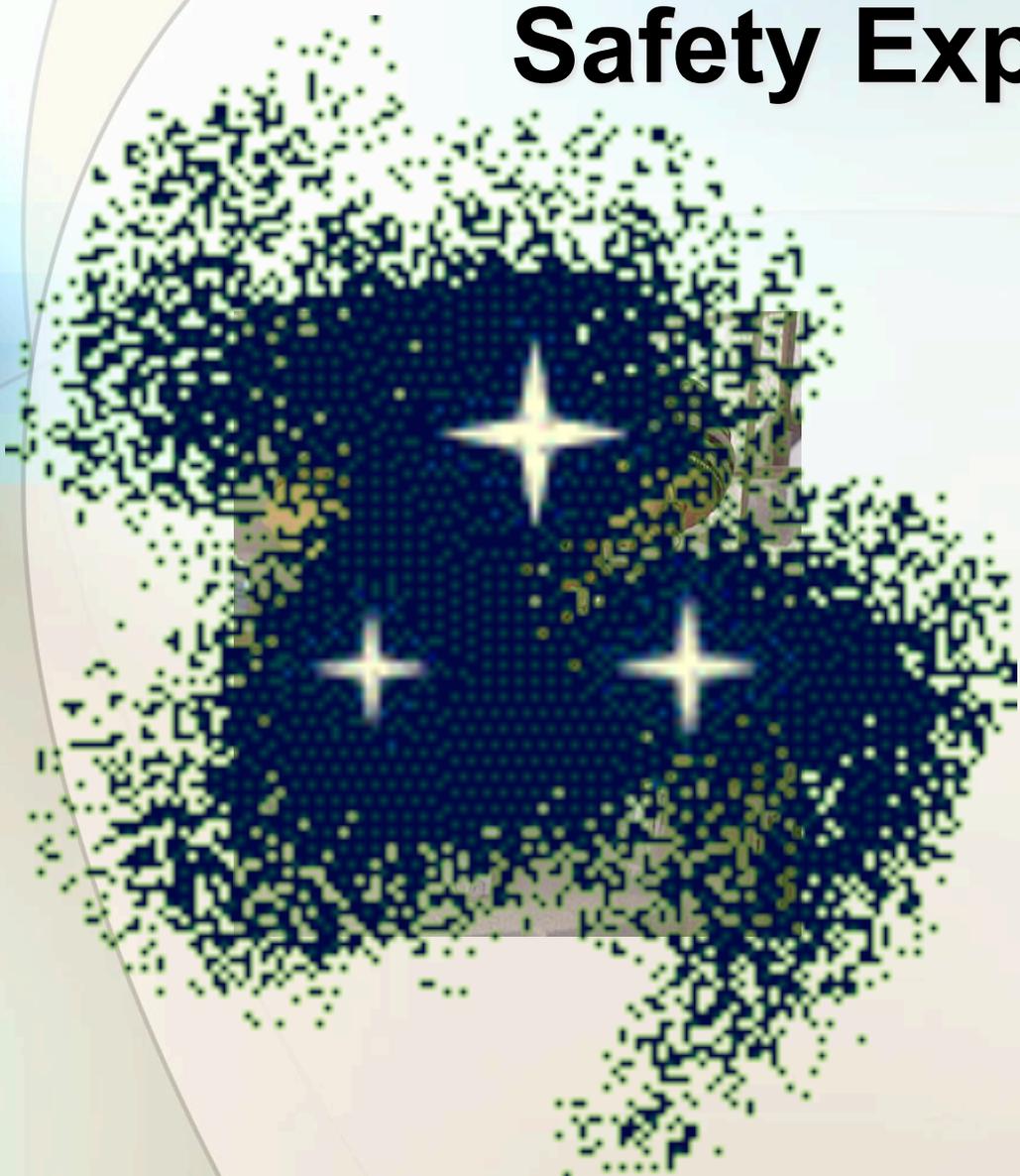
# What's different about worker-based research?



- **Recognizes workers' health is political**
- **Gives workers a voice**
- **Democratizing**
- **About change**

# Who are the Health and Safety Experts?

Workers know  
their own jobs  
and workplaces  
best



# Degrees of Research Participation

**Workers conduct research by themselves**



*or*

**Workers collaborate with trusted researchers**



*or*

**Workers give direction**

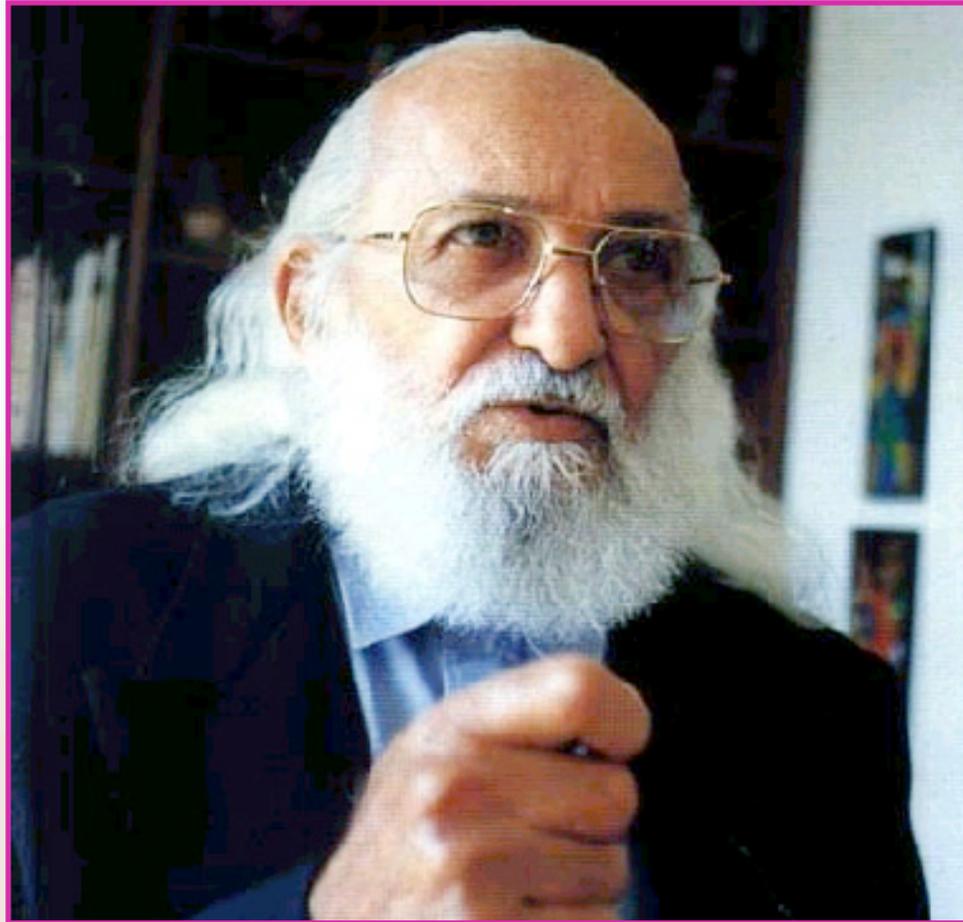


# Where Do Worker-Based Research and Mapping Come From?

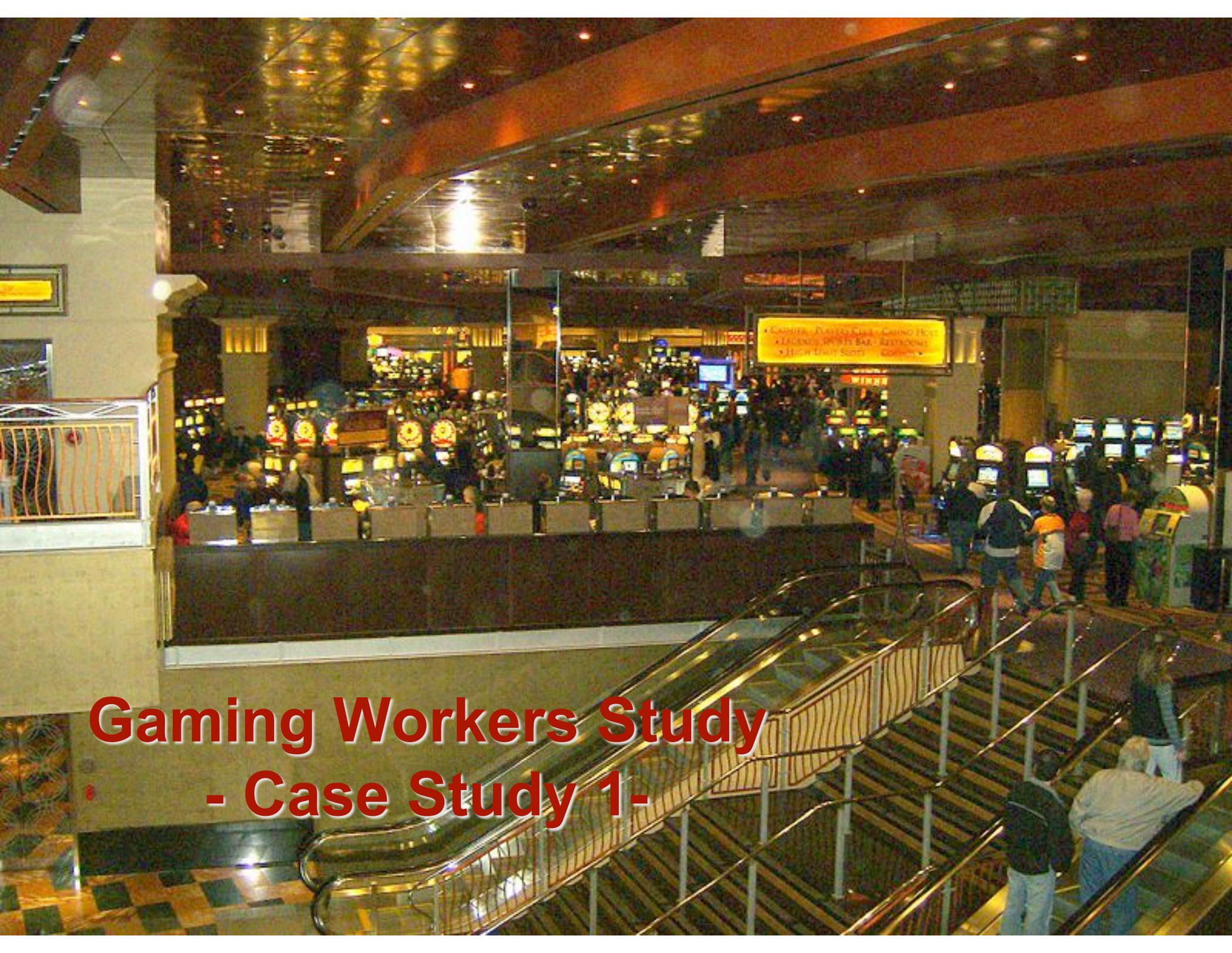


**Italian Fiat Plant Workers in 1960s**

# Where Do Worker-Based Research and Mapping Come From?



**Paulo Freire in Brazil 1950s – 1990s**



**Gaming Workers Study**  
**- Case Study 1 -**



# Priorities & Action Plan

Problem	Cause(s) of Problem	Effect(s) of Problem	Stickers Here	What Can be Done
Weight	Cart (Change) Banks (Change) Weight of tokens in cart Lack of equipment	Back pain. <sup>Major stress.</sup> ✓ Neck stress & pain ✓ Legs & feet pain from constant walking	●●●● ●	Additional breaks - to be Light weight adjustable cart Banks - drawers more access Inventory control. (Proper) Tools
Quality	Smoke Chemicals - Cleaning Agents Customer odour HVAC System	Inability to breathe. Asthma. Long term health effects. ✓	●●●● ●●●● ●●●● ●●●●	Move to permanent. Adequate System More Non-Smoking Areas. Proper use & education of staff (Regulate common area)
Job Stress Fatigue	Job design HVAC system not adequate	Sick more often ✓ Tiredness. ✓	●●●● ●●●● ●●●●	Proper HVAC system.
Design	Spacing between aisles Self machines. Traffic pattern	More bending & stretching. Stress levels higher.	●●●●	Better design, ergonomically in permanent Proper equipment.
Communication	Expected to do right but no explicit feedback Confusion - unclear instructions Suboptimal Possibility of weapons Customer - health risks (unknown) Supervisor indecision Short staffed Function Customer Time	Tremendous Stress. ✓ Not focusing - ie safety issues, possible accidents, mistakes. ✓ Discipline issues.	●●●● ●●●● ●●●●	Better communication, understanding More teamwork approach. Consistency.
		High stress - more consistently - lower attention		



#### RESEARCH PROJECT

Gaming workers in Windsor, Ontario and Winnipeg, Manitoba work together to research the health and safety hazards they face on the job. The workers and their unions, CAW Local 444 in Windsor and the Manitoba Government Employees Union in Winnipeg, joined with the Windsor Occupational Health Information Service, Occupational Health Centre for Ontario Workers, and the National Federation of Labour Occupational Health Centre to carry out the project. Very few research projects have addressed the health and safety problems in the fast-expanding gaming industry.

#### THE GAMING FACILITIES

Casino Windsor, which is run by a private consortium, has been opened out of two temporary facilities operating in 1994. It employs about 3,600 people. A large permanent facility is scheduled to open in 1998 and is expected to add an additional 1,000 employees to its workforce. The Winnipeg gaming facilities are owned by the Manitoba government. They consist of three gaming sites: the Crystal Club Regent and McPhillips Station. There are approximately 1,000 gaming workers at the three facilities. Planned changes include the closure of the Crystal Casino and expansion of other two.

## Identifying and Prioritizing Gaming Workers' Health and Safety Concerns Using Mapping for Data Collection

Margaret M. Keith, PhD cand.,<sup>1\*</sup> Beverley Cann,<sup>2</sup> James T. Brophy, BA, PhD cand.,<sup>1</sup> Deborah Hellyer, MD, FRCPC, FCCP, CIME,<sup>3</sup> Margaret Day,<sup>4</sup> Shirley Egan,<sup>5</sup> Kathy Mayville,<sup>3</sup> and Andrew Watterson, PhD<sup>6</sup>

**Background** This research was prompted by the clinical presentation of workers from a variety of gaming occupations with injuries and illnesses and multiple health and safety concerns.

**Methods** Using participatory action research principles, 51 gaming workers in Ontario and 20 gaming workers in Manitoba were consulted during a series of focus group sessions. Mapping exercises were used to survey the participants about their health concerns, perceived occupational hazards and the impact of working conditions on their personal lives. Participants were then asked to prioritize their concerns and make recommendations for improvements.

**Results** Gaming workers from both provinces identified similar health, hazard and psycho-social concerns. They prioritized the issues of stress, ergonomics, indoor air quality (including second-hand smoke and temperature), biological hazards, physical hazards and noise.

**Conclusions** This study points to a need to more fully investigate and address health and safety issues in the gaming industry. It also demonstrates the effectiveness of a worker-driven, participatory consultation. *Am. J. Ind. Med.* 39:42-51, 2001.

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**KEY WORDS:** participatory action research; mapping; casino workers; gaming workers; dealers; environmental tobacco smoke; stress; occupation; ergonomics

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Institution at which work was performed: Occupational Health Clinics for Ontario Workers (OHCOW), Windsor Occupational Health Information Service (WOHIS), MFL Occupational Health Centre, Inc. (MFL OHC), Manitoba Government Employees Union (MGEU), CAW-Canada: National Automobile, Aerospace, Transportation and General Workers Union of Canada (CAW) Local 444. The participating organizations self-funded this study.

Consent and Approval: Every participant completed a signed consent form permitting the authors to publish the findings. No personal identifiers have been included in the manuscript.

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### INTRODUCTION

The gaming industry in North America, once limited mainly to large gambling centers in the United States such as Las Vegas and Atlantic City, has exploded into the Canadian economy. In the last 10 years, gambling in regulated gaming facilities has been legalized in most provinces and territories, setting the stage for booming growth in the gaming industry. According to Statistics Canada, between 1992 and 1997 profits to provincial governments from gambling rose from 1.7 to 3.8 billion dollars and employment rose from 12,000 to 35,000 [Marshall, 1998]. Yet, in spite of its growing workforce and enormous impact on the economy, there has never been a systematic investigation of occupational health and safety within the gaming industry.

This study was initiated in 1997 after inquiries and patient contacts were made at the Occupational Health

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# Casino Workers



## Casino concerns focus of study

BY SUE BAILEY  
STAR GAMING REPORTER

Urine left in plastic cups by fixated slot machine players, carelessly discarded hypodermic needles and intense stress are among casino workers' concerns in a ground-breaking study to be released today.

"In some cases (players) were so fixated to their slot machines that they didn't even want to bother to get up and go to the bathroom. They'd just use a plastic cup and set it down beside the slot machine," said Margaret Keith, co-author of the study and director of the Windsor Occupational Health Information Service.

"This is considered to be a very glamorous industry and most people wouldn't give a second thought to the working conditions for employees there."

### Other concerns

Seventy-one participants representing 18 gaming jobs — 51 from Windsor and 20 from Winnipeg — also reported repetitive strain and back injuries, respiratory ailments and

hustle-bustle" casino atmosphere, said Windsor Casino Ltd. spokesman Jim Mundy. "We'll

new stre best add. A cou deal Mu

Some have to push around coin carts that weigh as much as a full-sized automobile. Others inhale second-hand smoke in crowded, noisy rooms or walk around for seven or eight hours with ringer belts that weigh as much as two 10-kilogram sacks of potatoes.

"A lot of employees are scared to see alcohol come into these places." Some drunken customers vomit and then continue playing, she said. Others have tried to get into the premises by breaking windows after the doors have been closed.

Participants were split into small focus groups and "mapping" was used to label trouble spots on images of the human body and of work place areas. Many dealers, for example, pointed out pain in their shoulders, arms and wrists, Keith said.

"A lot of them talked about the incredible effect of stress and exhaustion on their home

plans to allow booze in the expanded McPhillips Street Station and Club Regent have met with disapproval from the people who work there.

It's bad enough to have customers drink and then come into the facility as it is now, let alone serving alcohol on the premises," said Robin Drylick, a slot machine attendant.

"I believe we have three people — on compensation," said Winnipeg casino worker Robin Drylick.

There are about a dozen large casinos in several provinces across Canada, including Nova Scotia, Quebec, Ontario, Manitoba and Saskatchewan. There are also charity casinos in other provinces.

The Manitoba Government Employees Union and Canadian Auto Workers union used focus groups to pinpoint the kind of health problems casino workers are facing in Winnipeg and Windsor, Ont. and found a lot of similarities.

"They released the results justly yesterday. A long list of problems surfaced, from rashes to pinsores and one case of a collapsed lung. Employees attributed all the problems to their work, although union officials admitted some might be hard to prove.

Other problems included leg pain and fatigue from standing for long periods of time and walking on uneven surfaces. Workers also suffered headaches, and eye strain from the continuous noise and flashing lights.

Union study claims

## Casino workers gamble with health

SCOTT EDMONDS  
Canadian Press

The people who deal the cards and count the cash in Canada's casinos have more than paper cuts to complain about, union representatives said yesterday.

Some have to push around coin carts that weigh as much as a full-sized automobile.

Others inhale second-hand smoke in crowded, noisy rooms or walk around for seven or eight hours with ringer belts that weigh as much as two 10-kilogram sacks of potatoes.

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Peter Olfert (right) at news conference yesterday with casino workers Doug Peter and Robin Drylick.

to improve working conditions, said union spokesman Peter Olfert.

Manitoba lottery officials say they're willing to negotiate with the union to see what workers have in mind in Winnipeg.

"We are meeting with (Dry) I believe next week on that regard," said Doug Olfert, the Manitoba Lottery Corp.

But Olfert insists they have always done their best to ensure safe working conditions, and with around 50 compensation claims a year, they say they're not out of line with the rest of the high-stakes industry.

"This is not something new."

Should working conditions be improved for casino workers? See feed-back on page 14

## Casino workers hope report a winner

BY SUE BAILEY  
STAR GAMING REPORTER

Casino workers Susan Essery and Bob Vrabel hope a first-of-its-kind health-and-safety study on gaming employees will make their jobs easier.

Essery, a porter, and Vrabel, a security guard, both work at the interim Casino Windsor.

They shared stories of remarkably rude patrons, the aches and exhaustion of repetitive work and the hazards encountered in what's widely considered a glamorous environment.

Just two weeks ago a change attendant was hospitalized when a top-heavy chest of token drawers weighing hundreds of pounds toppled on her, they said. "Every day we see things we feel are a hazard and we get told 'Well, we haven't had a problem yet,'" Vrabel said.

He and Essery were among other study participants who attended the Canadian Auto Workers Local 200/444 union hall on Turner Road Thursday as the document was released.

The joint Windsor-Winnipeg Gaming Workers' Health & Safety Research

Project revealed four key concerns expressed by the 71 workers in 18 jobs:

- stress;
- second-hand smoke;
- noise;
- and "biological hazards" such as the spilled blood of combatant gamblers, vomit, urine and discarded hypodermic needles or "sharps" used by diabetics. (Anyone caught using such needles to inject illicit drugs is reported to police, said casino spokesman Jim Mundy.)

Essery, 45, said the often unsavoury job of cleaning up after gamblers falls

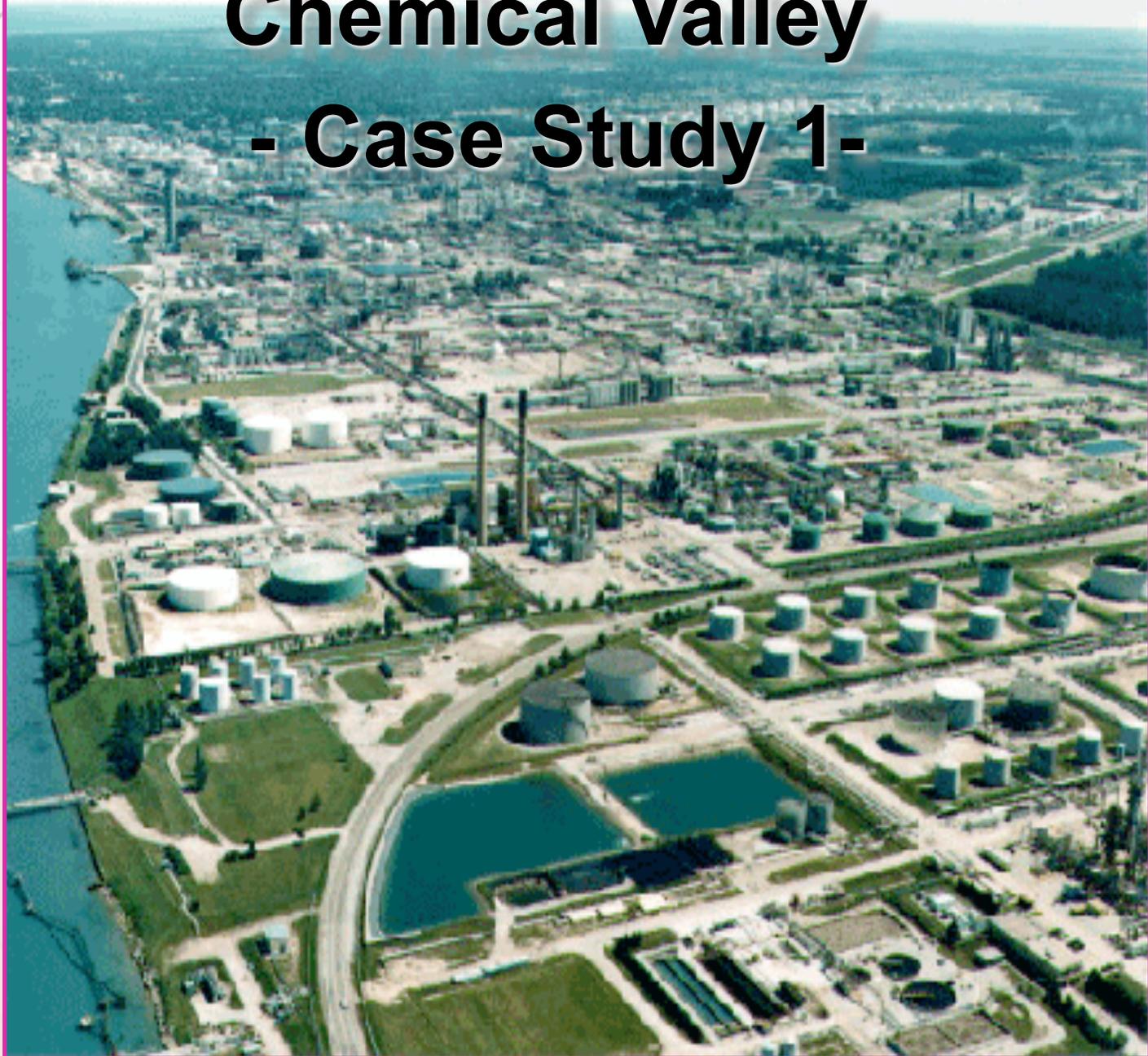
mostly to porters whose main protection is rubber gloves. So why has the former hair stylist stuck with the \$11.87-an-hour job? "I love being out on the floor with the people," Essery said, adding the job can be exciting and fun.

Issues raised in the study will be discussed during contract talks between CAW Local 444, representing about 3,000 casino workers, and Windsor Casino Ltd., said local president Ken Lewenza. It's hoped solutions can be found to ease absenteeism rates of 30 per cent reached in some casino departments each day, he added.

Windsor Star - Feb 27/8

# **Chemical Valley**

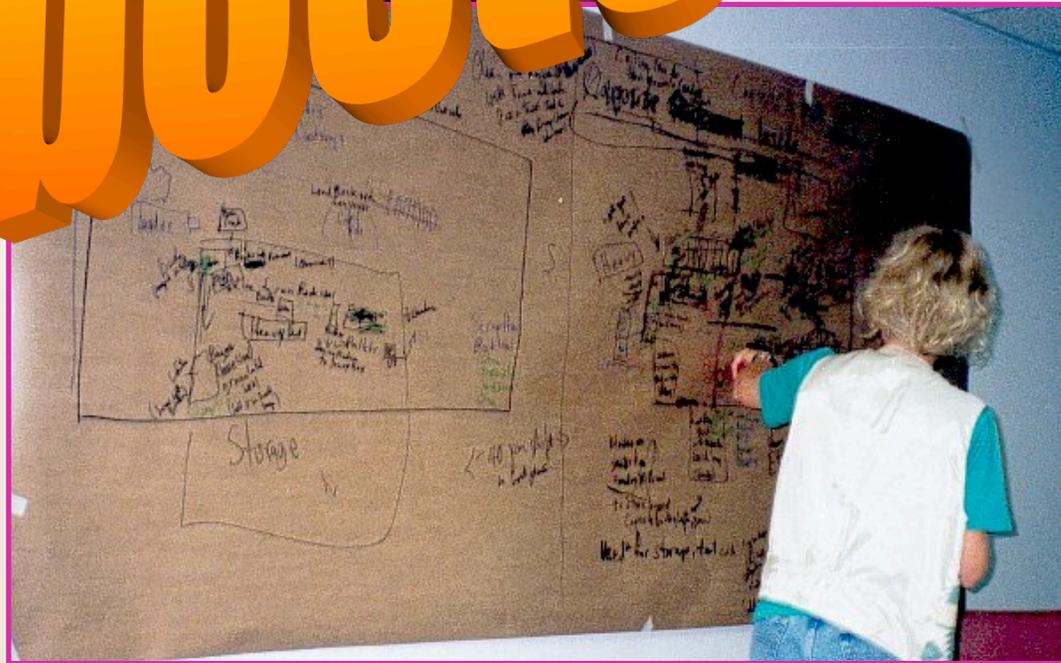
## **- Case Study 1-**



# Holmes Foundry and Insulation



Asbestos!



# Holmes Foundry and Insulation



**HOLMES**  
Exposed

## Participatory Mapping of Occupational Hazards and Disease among Asbestos-exposed Workers from a Foundry and Insulation Complex in Canada

MARGARET M. KEITH, JAMES T. BROPHY

A study of former asbestos-exposed foundry and insulation workers was carried out in Sarnia, Ontario, home to Canada's petrochemical industry, using participatory mapping to document past exposures and subsequent diseases. Before it closed, government inspectors had monitored the use of asbestos at the facility, documenting levels that were thousands of times above the current legal limit. The study was undertaken by the Occupational Health Clinics for Ontario Workers (OHCOW) and Canadian Auto Workers (CAW) to provide evidence for worker compensation claims. Using facilitated hazard mapping, former Holmes workers graphically reconstructed their workplaces and detailed their exposures. Using facilitated body mapping, workers recorded and displayed their health problems. The study uncovered a grim pattern of occupational diseases. Following the release of the results,

having asbestos related diseases.<sup>1</sup> Like the current recipients of imported asbestos in developing countries, workers in Sarnia-Lambton became the unwitting victims of asbestos that was brought into their community by their employers.<sup>2</sup>

Sarnia-Lambton is situated on the St. Clair River about midway through the Great Lakes system. The city of Sarnia and the surrounding county of Lambton have a combined population of approximately 127,000. A thriving petrochemical industry was established following the 1851 discovery of petroleum "gum beds" in the area.<sup>3</sup> The abundance of crude oil and the proximity to the United States and a major steamship route made Sarnia an ideal site for doing business. By 1893, the Sarnia area was the major supplier of crude and petroleum products for Canada.<sup>4</sup>

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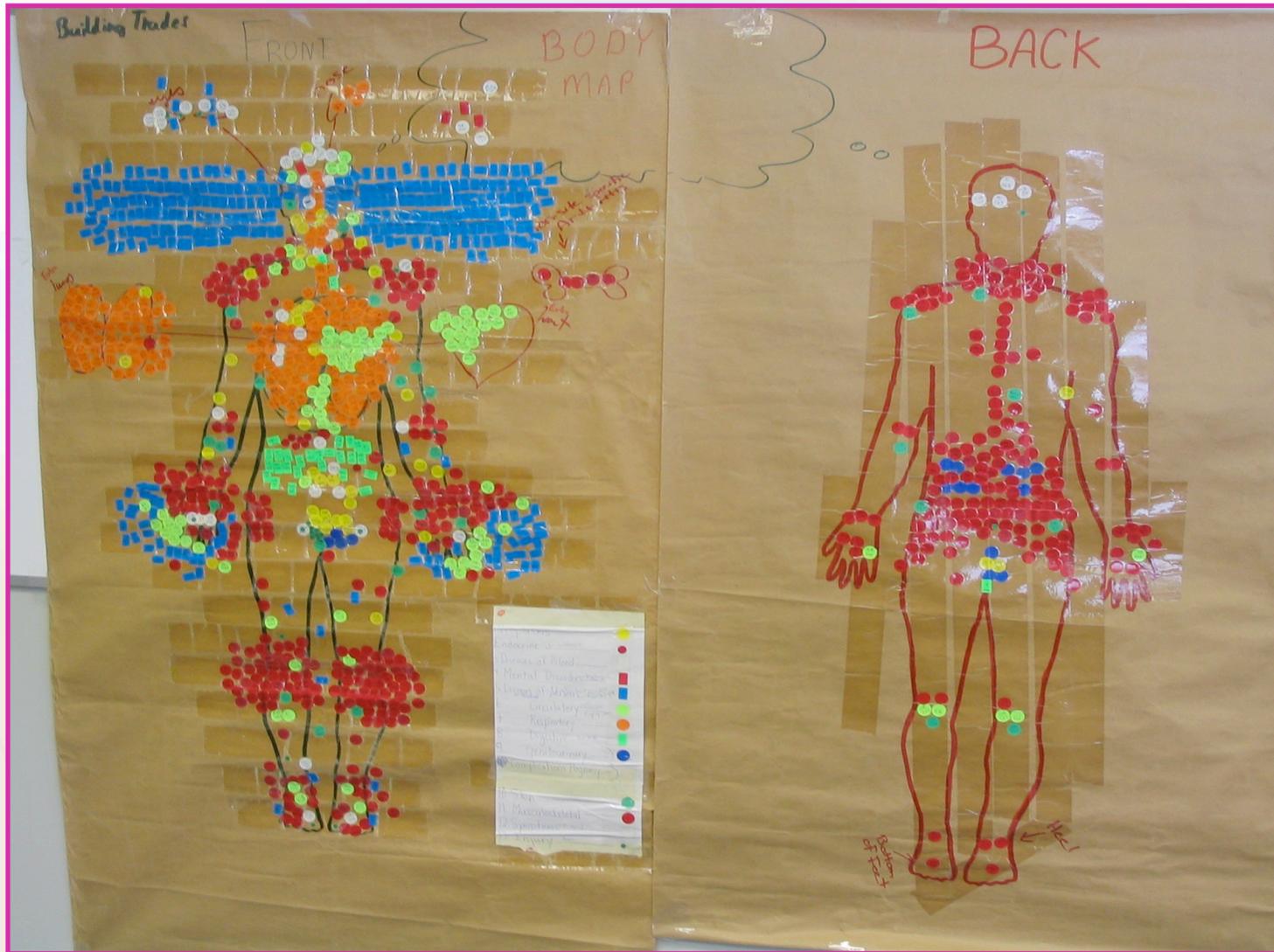
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# Holmes Foundry and Insulation



# Sarnia Building Trades Workers



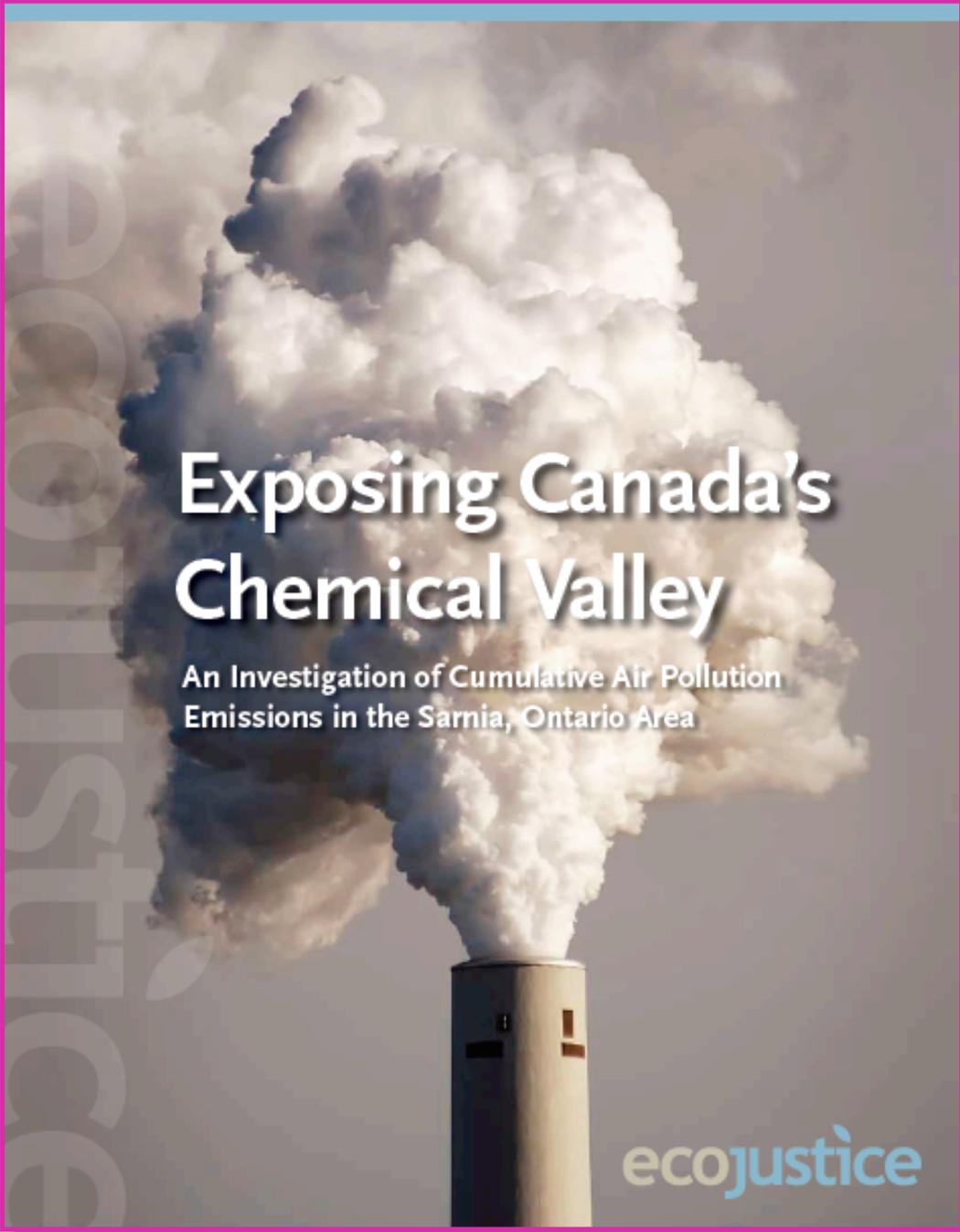
# Exposing Asbestos Disease



# Linking to the Community







# Exposing Canada's Chemical Valley

An Investigation of Cumulative Air Pollution  
Emissions in the Sarnia, Ontario Area

ecojustice

- More greenhouse gases than the entire province of British Columbia





# 4 step Mapping

1. **Body Mapping**
2. **Hazard Mapping**
3. **Your Life Mapping**
4. **Prioritizing and Action Planning**



