Occupational Health & Safety Agency for Healthcare in BC

Development and evaluation of a provincial ceiling lift program for home and community care

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OHSAH

"Making healthcare a healthier place to work."

Outline

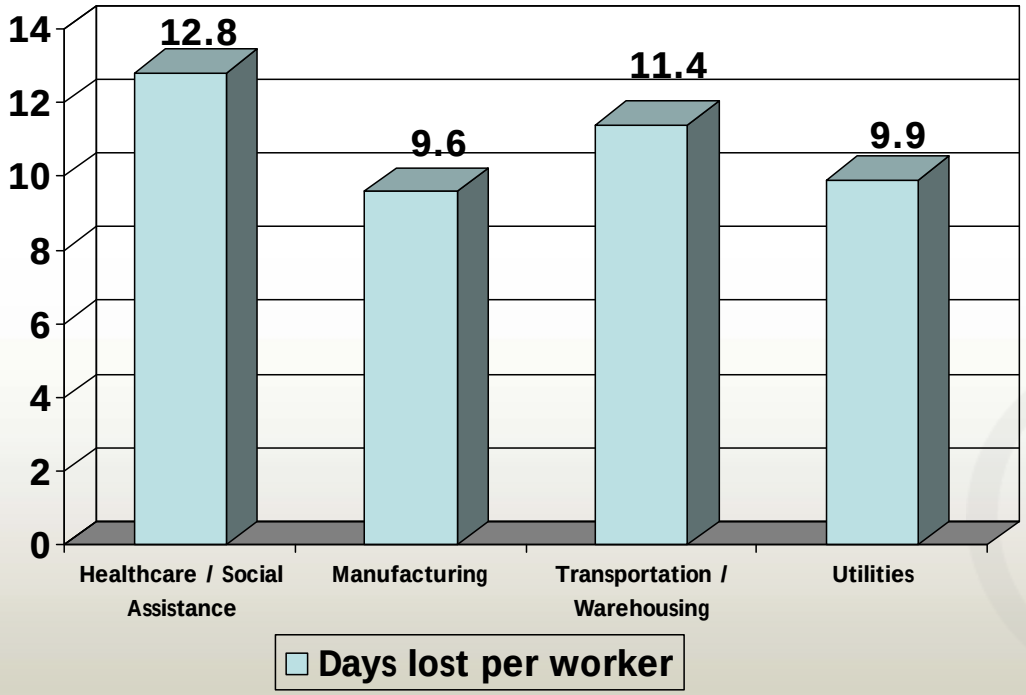
- About OHSAH
- Project Background
  - Improving the OHS of Community Health Workers
  - Development of a Manual Lift Device
- Project Findings
- Questions

Why was OHSAH formed?

- Healthcare system plagued by difficulties
  - Illness and absences from work
  - Escalating costs
- Increasing concern about infectious diseases, musculoskeletal injuries, chemical-induced disorders, violence, stress
- High injuries and time loss relative to other sectors
- Unsafe work conditions impact ability to deliver quality care

Days lost per worker by industry

Healthcare/Social Assistance is the #1 source of days lost per worker in Canada (2003)



Source: Statistics Canada, CANSIM, table 279-0030

Who is OHSAH?

- Bipartite organization
- Core funding
- Grant funding
  - Canadian Institute of Health Research
  - WorkSafeBC
  - Michael Smith Foundation for Health Research

OHSAH's Mission

To work with all members of the healthcare community to develop guidelines and programs designed to promote better health and safety practices and safe early return-to-work

To promote pilot programs and facilitate the sharing of best practices

To develop new measures to assess the effectiveness of programs and innovations in this area

Our structure

Co-Directorship Model

- Chief Scientific and Medical Officer
  - Disease Prevention
  - Disability Prevention
  - Education and Training
  - Injury Prevention
  - Mental Health and Organizational Development
  - Statistics and Evaluation

- Chief Financial and Administrative Officer
  - Information Systems (Communications and Software Products and Services)
  - Finance and Administration

Our methods

Collaborative & Evidence-Based

- Use evidence, (local and published internationally) to **develop** and disseminate best practice guidelines
- **Create partnership** initiatives with funding based on labour-management cooperation and scientific validity
- **Rigorous evaluation** of effectiveness, and cost-benefit of workplace interventions

BC Healthcare Industry

2001/2002 Healthcare amalgamation

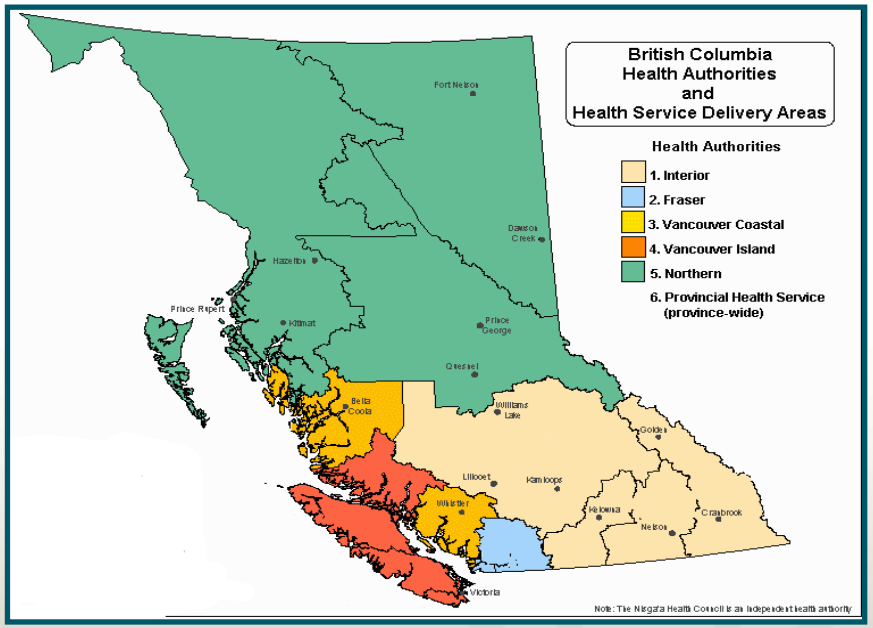
52 regions and councils down to 6 health authorities

4 Major Unions

BCNU, HEU, HSA, BCGEU

Other Stakeholder Groups

Affiliate employers
WorkSafeBC
Healthcare Benefit Trust



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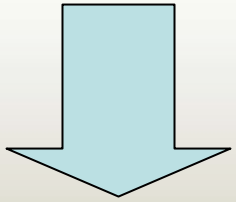
Project Partners

- Occupational Health and Safety Agency for Healthcare in BC (OHSAH)
  - Georgina Hackett, Chris Back, Lori Strom
- Peak Research Inc.
  - Nancy Paris, Ryan Kanigan
- British Columbia Institute of Technology (BCIT)
  - James Watzke, Christine Flegal
- University of British Columbia
  - Dr. Annalee Yassi

Specific thanks to WorkSafeBC for funding this initiative

Background

- Challenges and barriers in home and community care (HCC)
  - assistance with activities of daily living
  - frequent transferring and repositioning
  - often poor workspace layout
  - lack of equipment



Place care giver at high risk for MSI

Background

- Ceiling lifts shown to reduce MSI in other healthcare settings

- Past HCC ceiling lift initiatives
  - Improving the OHS of Community Health Workers
  - Development of a Manual Ceiling Lift

- Recommended research
  - Identify and address barriers to using lifts in clients' homes

A Project in Partnership

- Delta Home Support Services Society
- North Shore and Coast Garibaldi Home and Community Care
- Powell River and District Home Support Society
- Richmond Community Home Support
- South Fraser Home Support
- West Kootenay Boundary Home Support
- United Food and Commercial Workers
- British Columbia Government and Services Employees' Union
- Health Employers Association of BC
- WorkSafeBC (formerly the Workers' Compensation Board of BC)
- Canadian Institutes for Health Research
- Community Alliance for Health Research
- Michael Smith Foundation for Health Research
- Canada Research Council

Objectives

1. To identify common injury mechanisms for CHWs
2. To compare the injury rates of the control and intervention groups to determine intervention benefits
3. To determine if baseline perceptions of workplace organizational factors were associated with differences in injury rates

Education and Training

Increase awareness of health and safety risks and injury prevention measures for:

- MSIs,
- chemical hazards,
- biohazards and infection control,
- violence prevention,
- working alone, and
- general hazards

Risk Assessment Tool

- Guided supervisors through assessment of risks to workers in a home and during client care
- Divided into the same areas as the education and training module
- Packaged with:
  - resource guide
  - client intake form
  - hazard report form
  - pain and discomfort form

Equipment Registry

- Provided access to mechanical lifting equipment for transferring and repositioning activities

- Access to 25 lifts:
    - 20 ceiling lifts
    - 5 free standing overhead lifts

- On loan for the duration of the study

Study Design

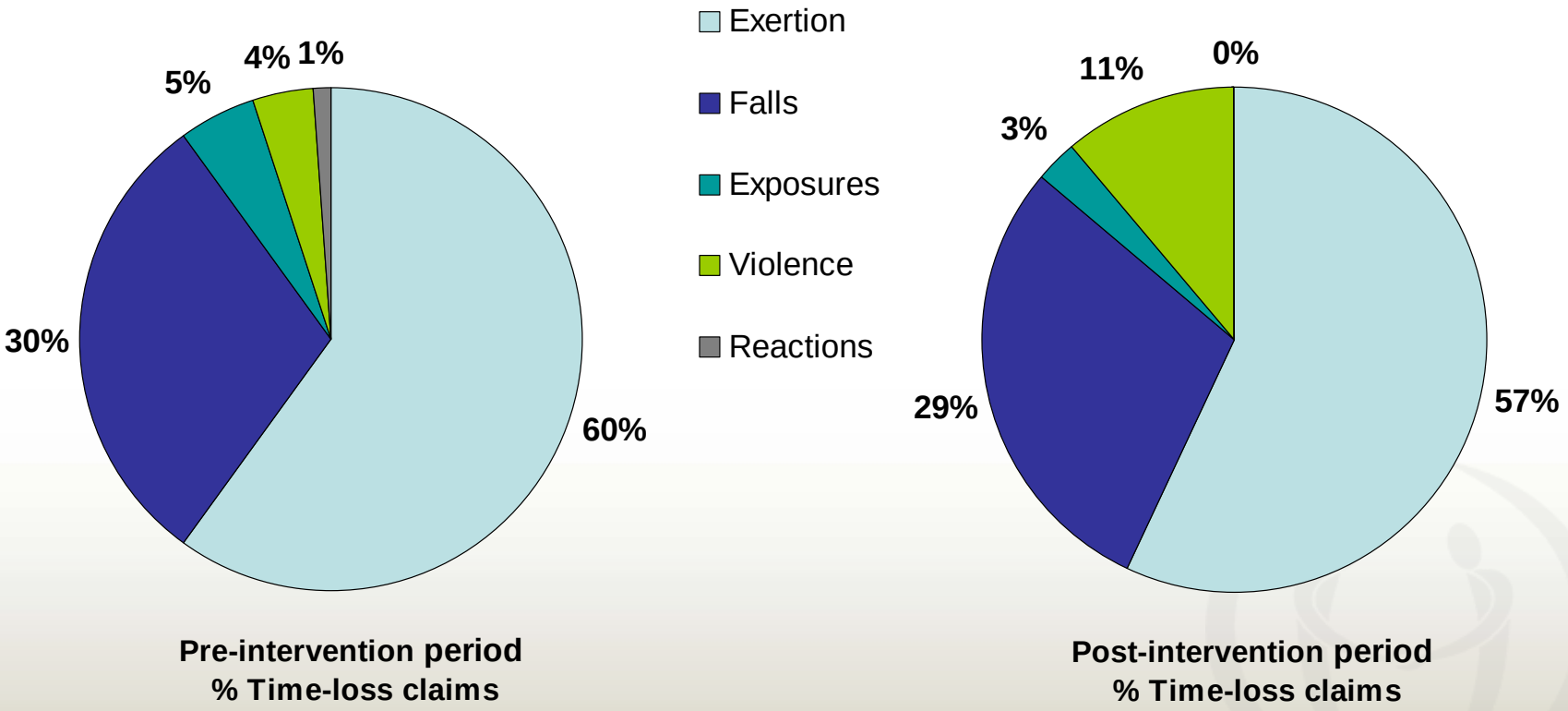
- 5 agencies trialed one or more of the interventions for 1 year
- 1 control group
- Evaluation tools:
  - Pre and post questionnaires
  - Pre and post injury information

Intervention and Control Groups

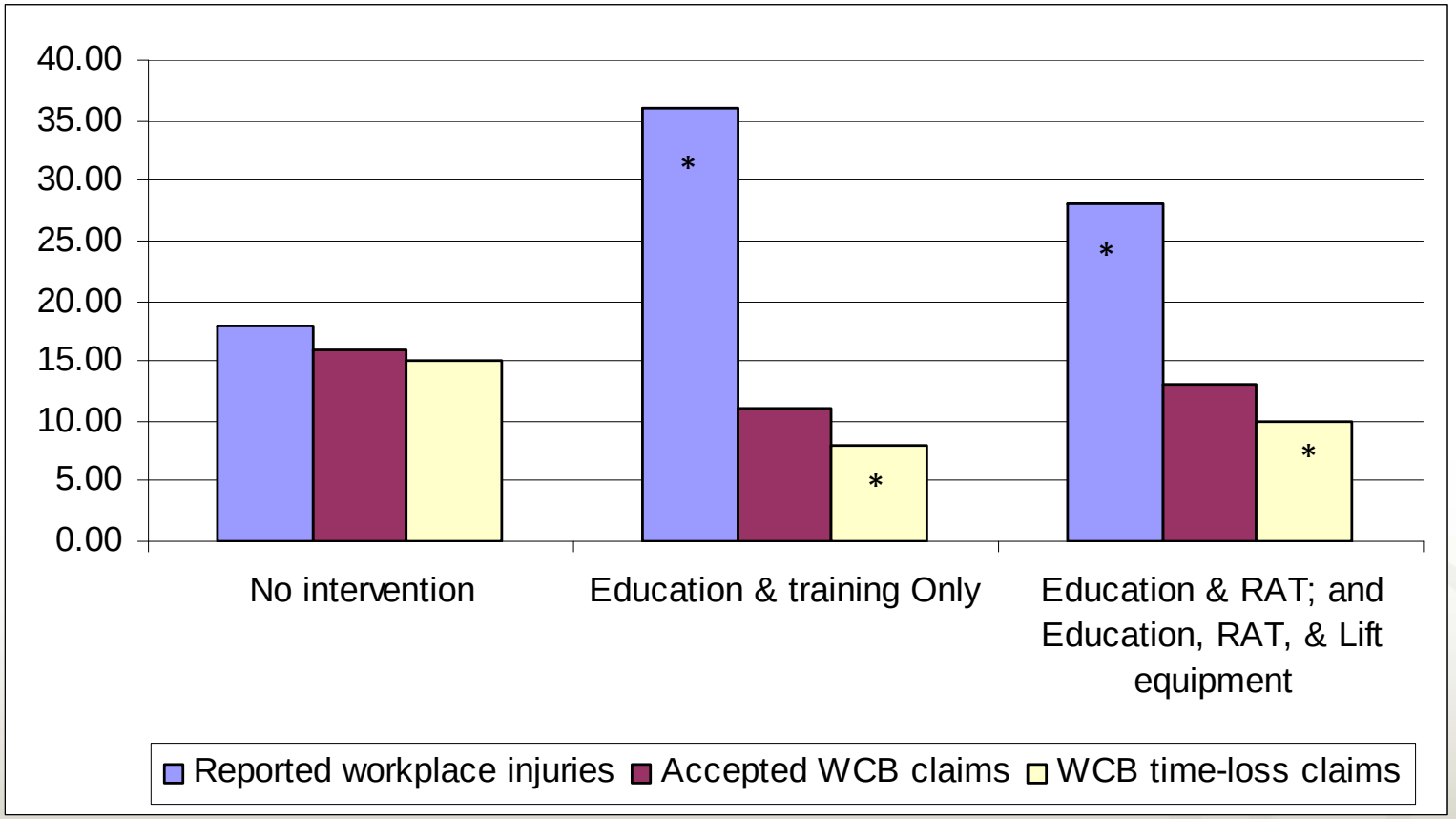
Intervention and control groups

Interventions Applied	Number (%)
No Interventions	171 (26)
Education and Training Only	205 (32)
Education & RAT; and Education, RAT, & lift equipment	272 (42)
Total	648 (100)

Results: Common Injury Mechanisms



Results: Compare intervention and control groups



Number of reported workplace injuries per 100 participants per intervention group during intervention year

* statistically significant

Results: Organizational Factors

- Participants who:
  - reported lower pain and discomfort levels,
  - felt safer on the job, and
  - reported higher job satisfaction

were significantly **less** likely to sustain an injury that resulted in an accepted WorkSafeBC claim or TL claim during the follow up year

Limitations

- Small sample sizes, and a low response rate for follow up questionnaire
- Differences between agency safety programs, workplace culture, and reporting procedures
- Implementation of the no-lift policy during the intervention year
- Difficulty locating and collecting data during formation of the Health Authorities in 2002
- **Challenges implementing the lift equipment registry as intended**

Conclusions

CHWs are at high risk for injuries

Overexertion and falls remained the primary mechanism. Violence related injuries showed a noticeable increase.

Interventions may:

- enhance recognition of early signs and symptoms of injury, and workplace hazard and injury risks
- allow for early application of control measures, helping to reduce the number of time-loss injuries

Conclusions

- Findings demonstrated that **enhanced** CHW perception of:
  - health and safety, and
  - organization of work
  - as well as a perception of lower pain and discomfort

  could have a **protective** effect in reducing injuries and claims

Recommendations

- Update the education module and the risk assessment tool; support provincial implementation
- Develop and evaluate strategies to reduce the risk of violence for CHWs
- Design interventions to improve job satisfaction and perception of workplace safety with a focus on workplace organizational factors and safety culture
- **Identify and address the barriers to using mechanical lift equipment in home settings**

Portable Ceiling Lift Devices

BCIT manual lift

Powered lift

BHM Voyager 3

Objectives

1. How do CHWs and clients rate the manual lift device in terms of comfort, perception of safety, and acceptability?

2. What are the barriers to lift device use?

3. Are MSIs and compensation costs reduced after using the device for one year?

Methods

- 20 clients and 38 community health workers were recruited
- 20 manual lift devices were place in client homes for one year
- Clients and their workers were interviewed at baseline, 6 months and 12 months
- Injury reports were collected for the intervention year and for the 12 months immediately prior to installation

Results

- 12 clients and 11 community health workers completed all 3 interviews
  - 7 clients stopped using the lift because their condition improved or living circumstances changed
  - One client withdrew from the study

- **It was challenging to recruit 20 clients.**

Results – Lift features

- CHWs liked:
  - smoothness of the lift and lower
  - low noise level
  - time required for the transfer (no increase)

- Clients reported:
  - less physical stress and greater comfort using the lift (compared to a manual transfer)
  - at six months, 71% of clients felt safe and secure
  - increased to 82% at one year

Results – Barriers to use

- Clients reported resistance to lift use due to:
  - not liking the appearance
  - fear of the unknown
  - feeling their condition did not require one
  - cost
- CHWs reported that clients:
  - see a lift as a loss of independence
  - feel their condition did not require one
  - do not understand the benefits related to mobility and safety for both themselves and their CHWs
  - feel that lift devices are too expensive

Results – Facilitators for use

- To increase lift use, CHWs and clients suggested:
  - demonstrations before purchase
  - information on cost and installation procedures
  - information on how lift devices would increase mobility and safety

Results – CHW injury reports

- Participating CHWs did not report any injuries in the year prior to installing the lift.
- No client handling injuries were reported during the intervention year, and therefore, no compensation costs were recorded.

Conclusions

- Manually operated ceiling lift devices are comfortable, safe, and acceptable to CHWs and their clients.
- Clients strongly agreed that if lift devices were affordable, they would be willing to have them in their homes.
- The study identified a complex set of variables that influence adoption of ceiling lifts in the home environment.

Recommendations

- Identify and analyze the barriers to adopting ceiling lifts in homes, and
- Develop a ceiling lift implementation program to address those barriers

The Project

Four Phases:

- Issue Identification
- Issue Analysis
- Program Development
- Program Evaluation

Who is involved

CHW & Client

Health Authority

Agency Managers & Supervisors

Clinicians

Equipment Suppliers

Funders

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Issues identification

- 46 issues identified
  - Review of academic, clinical and, grey literature
  - Informal interviews

- Challenges identified in many areas
  - Communication
  - Access to information
  - Education and training
  - Funding availability
  - Geography

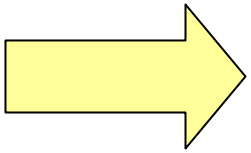
Issues analysis

- Interrelationship diagraph technique for issue analysis

- Analysis categorized issues
  - *Drivers* that need to be addressed in the program
  - *Outcomes* to be measured once the program is in place

Issues analysis

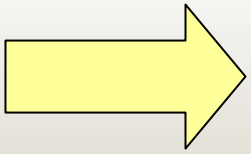
Driver
(issue to address)



Outcome
(issue influenced by driver)

Example:

- Low understanding of equipment
- Perception that equipment cost is high



Negative perceptions surrounding ceiling lift use in homes

Program development

- Steps to development
  - Identification of program goals and objectives
  - Creation of program elements, based on drivers
  - Creation of success measures, based on outcomes
  - Options for administration (program model)

Program goals and objectives

The program will:

- Be sustainable
- Support client care and worker safety
- Provide equal access for all British Columbians
- Provide a common process for obtaining a lift
- Provide for client choice and input
- Provide province wide access to information regarding lift equipment

Program components

- 14 program elements in key areas:
  - Funding
  - Standardized tools and resources
  - Knowledge transfer and communication
  - Education and training
  - Geography
- Potential strategies to address each element
- Included options for implementation (administrative structure)

Key features

Central Information Source

Regional Program Champions

- CHW & Client
- Health Authority
- Agency Managers & Supervisors
- Clinicians
- Equipment Suppliers
- Funders

Central information source

- Website development
  - Latest technology updates
  - Equipment options
  - Vendor and supplier information
  - Funding sources
  - Best practices
  - Tools, practice guidelines, templates
  - Education and training packages
  - Links to related resources
- Maintained by a provincial expert

Regional program champions

- Coordinate the program or support existing initiatives
- Coordinate in-person training
- Assess barriers in a specific situation
  - Identify appropriate interventions
- Facilitate or coordinate implementation/funding
- Develop relationships with regional equipment suppliers

Program evaluation

- Interviews to gather feedback
  - Clients who are currently using ceiling lift equipment
  - Community health workers
  - Home and community care managers and supervisors
  - Clinicians and case managers
  - Health Authorities and Unions
  - Ministry of Health

Results of evaluation

- Structured telephone interviews

Stakeholder Category	Number	Percentage
Agency Manger	4	12.5%
Case Manager	2	6.3%
CHW	5	15.6%
Client	2	6.3%
Clinician	9	28.1%
Corporate or Union OHS Specialist	5	15.6%
Supervisor	4	12.5%
Technician	1	3.1%
Total	**32**	**100%**

Results of evaluation

- All 14 elements deemed important
  - Resulting in element prioritization
  - Top five program elements:
    - Provide information, tools and resources to effectively implement program
    - Develop standard criteria, guidelines and policies for client handling
    - Improve methods of communication
    - Adequately resource assessments (financial and human)
    - Ensure assessments occur prior to care provision

Potential funding

Provincial Government

Health Authorities

Unions

Disability Societies

Service/ Housing Groups

Private Insurance

Individual

OHSAH

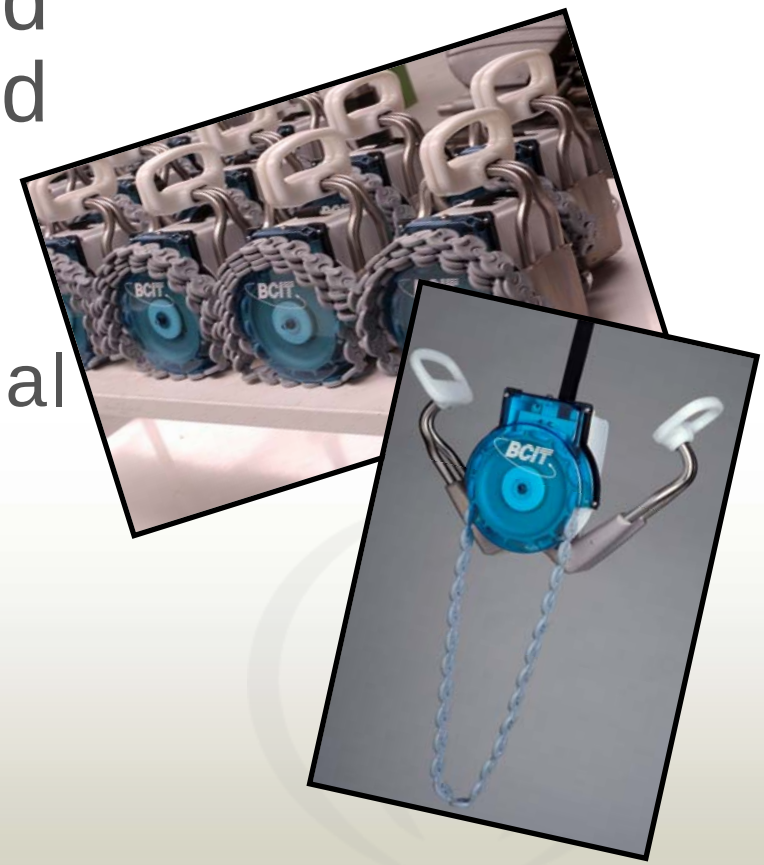
WorkSafeBC

Potential funding

Potential Funding Sources	Pilot	Governance	Central Resource Operational Funding	Regional Program Operational Funding	Information Sharing/ Hosting	Equipment Purchasing, Installation, & Service	Gap Funding	Healthcare Worker Training
Disability Societies						✓		
Health Authorities		✓		✓		✓	✓	✓
Individual						✓		
MEIA		✓	✓		✓	✓		
Ministry of Health		✓	✓		✓	✓		
Unions					✓			✓
OHSAH		✓	✓		✓	✓	✓	✓
Private Insurance						✓		
Service/ Housing Groups						✓		
WorkSafeBC	✓	✓	✓	✓	✓	✓	✓	✓

Key message

- Education, standardized knowledge transfer, and communication relate to:
  - Development of practical tools
  - Efficient dissemination
  - Ease of use directly by front-line workers
  - Funding



Next steps

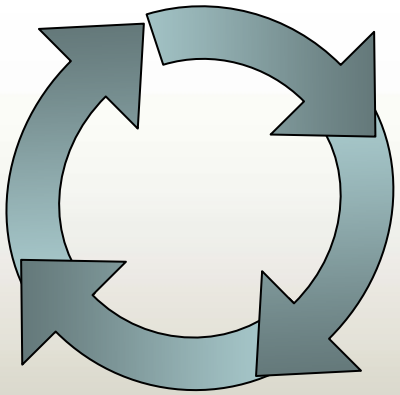
- Develop and pilot test the program within home and community care agencies in BC
  - Specific aspects or full program implementation?
  - In one region or different geographic regions?
  - What are the links: client and care giver safety?
  - Funding sources?

OHSAH's role

- Key role with this initiative
  - Coordination and facilitation of activities
  - Completion of ground work for issues identification and analysis
  - Leadership role in program development
  - Data collection and evaluation of program elements
- Positive impact on home and community care sector in BC

Linking Systems

- Attention towards health and safety of the healthcare workforce is essential
- No dichotomy between patient care and health of healthcare workforce



  - signs and symptoms of injury, vicious cycle of time loss due to injury and stress ➔ impact staffing levels ➔ impact workload ➔ further impact risk of injury
  - impact on patient care

Thank You!

For more information about OHSAH's work, resources, and programs:

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Or visit,

www.ohsah.bc.ca