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Learning From Stakeholders: Ergonomics & MSI Training Need Analysis Engagement

Prepared for: CSSHSA

CSSHSA

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Summary

- Thousands of community social services workers provide daily care and support for clients and residents across British Columbia. These workers face various Occupational Health and Safety (OHS) risks, with residential care sector workers being particularly vulnerable. They have a high risk of musculoskeletal disorders and injuries (MSD/MSI) due to changing work scenarios, high job demands, and a fast-paced environment.
- The main objective of this participatory stakeholder engagement initiative was to create a summary report that identifies the gaps in the health safety management system, particularly concerning MSI control mechanisms and existing training programs.
- A qualitative research method, consisting of focus groups and informal interviews, was employed to collect data from 11 participants representing 10 community social services agencies.
- The focus group and informal interviews indicate a considerable gap in the perception and understanding of injury risks at the leadership level across the sector. Potential MSI risks and probable workplace issues were identified. Reported MSI risks included material handling, awkward sustained posture, pushing/pulling, and over-reaching, due to workplace and job design issues.
- For the next steps CSSHSA could involve implementing a multipronged approach. This can be achieved by providing continuous guidance, consulting services, offering various ergonomics and MSI risk assessment services, developing risk assessment tools, and providing training and resources tailored to the sector.
- The initial step could involve developing awareness-level MSI prevention training tailored to the sector. This can be achieved through a participatory approach engaging with subject matter experts, the design team, and stakeholders.

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Introduction

The community social services sector encompasses a varied range of government-funded services aimed at enhancing economic and social well-being by assisting individuals in leading more stable and self-sufficient lives throughout British Columbia. These services include income security, employment assistance, social housing, senior care, child welfare, disability support, indigenous affairs, and domestic and family violence services. The community social services sector is vital to the social, physical, and financial health of the province.

A collaborative effort between government agencies, Indigenous groups, and non-profit organizations is essential for ensuring these services address the diverse needs of British Columbia's population. The mission of the Community Social Services Health and Safety Association (CSSHSA) is to assist employers in creating a safer workplace for community social service workers who contribute to the strength of our communities.

Background

The CSSHSA aims to develop an extensive Musculoskeletal Injury (MSI) management training program tailored specifically for the community social services sector. As a result, a distinctive Ergonomics and MSI Training Needs Analysis initiative was launched. Following an initial consultation with the CEO of the CSSHSA, Ergoera carried out a participatory training needs analysis involving various stakeholders within the sector.

Project overview

It is well known that the workers involved in various community sector jobs are exposed to multiple OHS (Occupational Health and Safety) hazards across the sectors. Particularly in the residential care work due to the everchanging work scenario, high job demand, fast paced environment employees are at high risk of musculoskeletal disorders and injuries (Carayon 2007). It is evident that musculoskeletal injuries are highest reported injuries in the residential care sector among other social services sector and trending upward (Fig 1). Efforts to address hazards in this sector are often challenged by high staff turnover and time constraints. As a result, MSI remains one of the key risk factors affecting the efficiency and productivity of the sector (Dwayne, 2021).

Ensuring people have awareness about Ergonomics and risk factors to avoid Musculo skeletal injuries and be safe while working is more important than ever. However, there are not many Ergonomics and MSI control training available specifically tailored to this sector. Keeping this in mind CSSHSA is planning to design and develop a MSI Prevention services and training catering specific to the sector for thousands of people working in the community social services across the province. To start with it is envisioned that the training is essentially to be offered virtually and eventually it may be offered in person if the need be. As there is limited number of scientific literatures on MSI control training initiative available specially tailored to the group, a participatory approach was taken to better understand stakeholder needs.

Sources: WSBC 2024

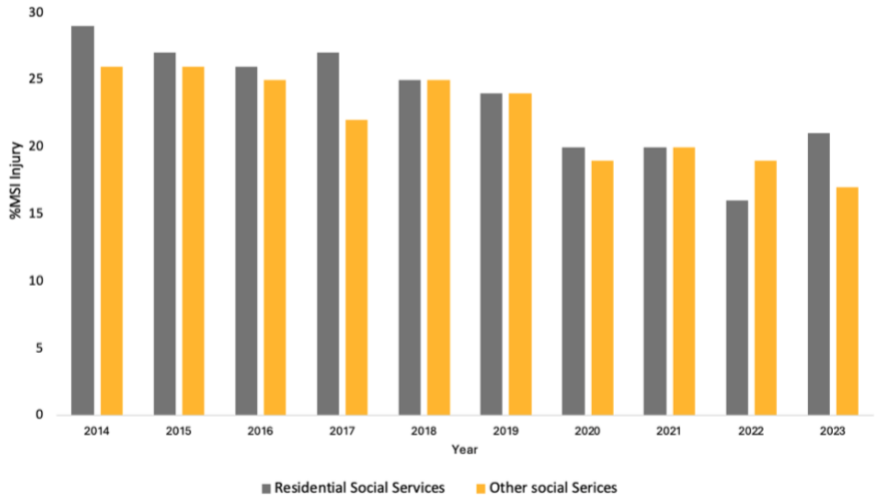


Fig.1 MSI claims in residential social services Vs. other social services sector in last 10 years

What does human factor and ergonomics (HF/E) mean in the context of social care?

Ergonomics, often defined as the science of designing the workplace and its components to fit the needs of the workers (or employees), plays a crucial role in social services settings. The acronym HF/E reflects both human factors and ergonomics, which are used interchangeably as they have the same aims. According to the International Ergonomics association "Human factors and Ergonomics (HF/E) is concerned with the understanding of interactions among humans and other elements of a system. It's the profession that applies theory, principles, data and methods to design to optimize human wellbeing and overall system performance. Practitioners contribute to the design and evaluation of tasks, jobs, products, environments and systems to make them compatible with the needs, abilities and limitations of people." (IEA, 2000)

In the social services, ergonomics (HF/E) directly influences worker safety, productivity, client outcomes, and the quality of care. The fundamental approach adopted by HF/E to consider how systems (any organizational or sociotechnical) interact and how work is really done in any settings. (Sujan, 2021) Like any other system the elements of a social care workplace system (e.g. residential care) include facilities, management systems and people (Fig. 2) (Vahlas,2017; Sujan, 2021).

In HF/E concept people are always kept at the center of any system. Particularly in residential care settings people are the characteristics of people involved in the work, including caregivers, officials (e.g. supervisors, mangers), residents, families and visitors. Workplaces design component may include design of the care home, various spaces within the homes, beds, wheelchairs and other equipment used regularly. Management systems may include care plans, work hours, point-of-care risk assessments, policies and procedures (Fig.2).

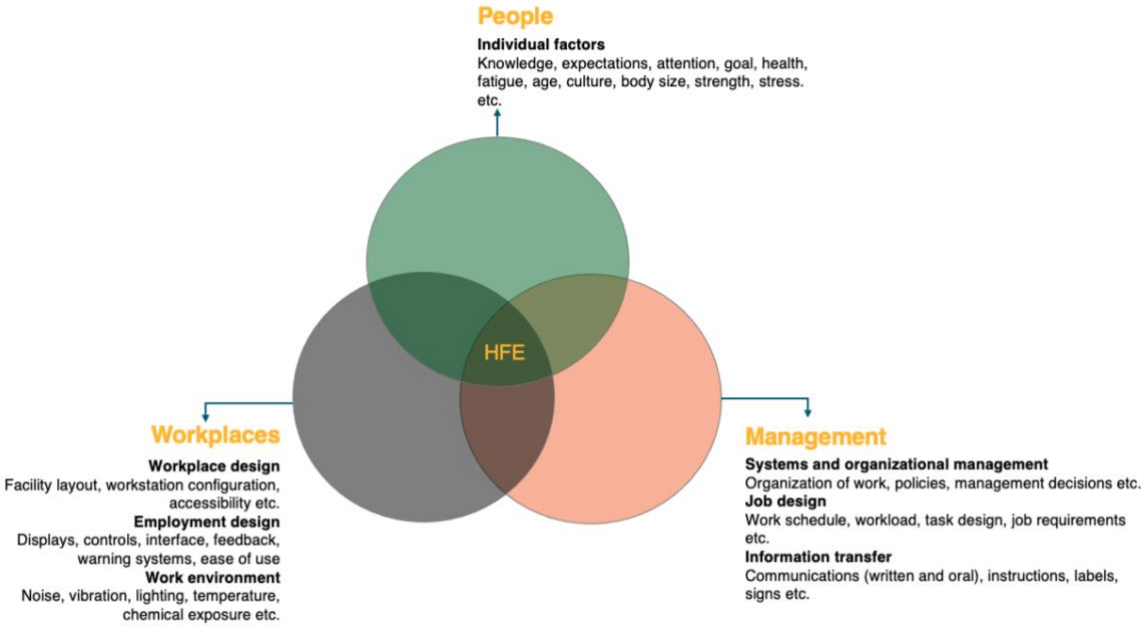


Fig.2 Elements and their interaction in a social services workplace environment- HFE perspective (Source: OHS blog, Bridger, 2017)

Project goal

The primary goal of this participatory stakeholder engagement initiative was to generate a summary report that includes the identified gaps within the existing system. This focuses particularly into the Ergonomics and OHS awareness level and the perception of MSI control mechanism and training in place within the participating organizations. Simultaneously it also aims to identify the present strengths and requirements of the sector for such awareness. Eventually prioritizing list of risks and expectation for online training program for MSI control and learning outcomes.

Approach taken

Initially, background research was conducted to identify key industry MSI risks and to investigate both international and national examples of similar risks. Based on this research, an informal interview format was developed. A qualitative research method, which included focus groups and informal interviews, was employed to gather information from the participants. The study involved managers and coordinators as its participants.

Project method

The potential participants (managers and supervisors) of various social services organizations across BC were reached out through an email campaign by the CSSHSA requesting participation for the initiative. Eleven participants representing 10 agencies across BC agreed to participate in the initiative.

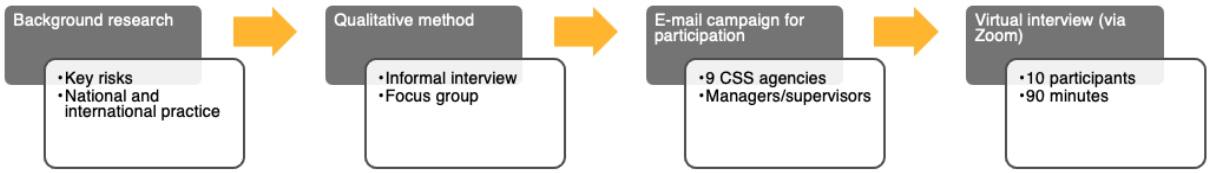


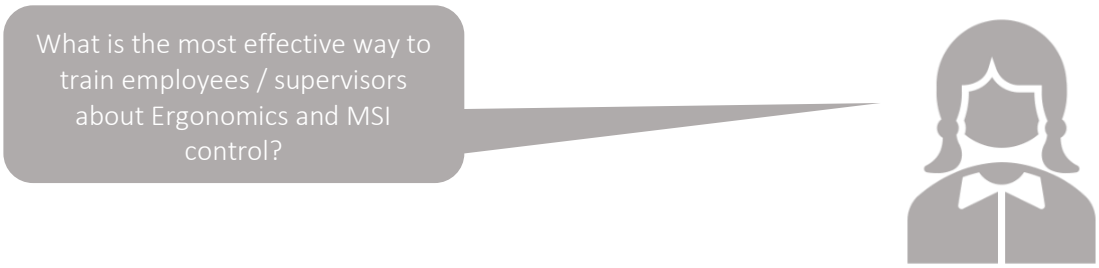
Fig. 3 Approach taken

Virtual informal interviews/focus group was planned and carried out through several days using zoom software. Total 10 such sessions were arranged with representatives (11 in numbers) from 10 different community social services agencies. These are residential social services agencies providing support mostly into supportive housing and temporary housing. Experience on the job of those participants varied between 6 months and >10yrs. The services provided by the agencies varied from home-based services, crisis intervention program, residential care facilities, day support service, to job readiness and community integration program for various age groups, gender, abilities and sociocultural background.

Question asked

Qualitative data was gathered concerning the impacts of the OHS program, training needs, employee/supervisor awareness levels on MSI control, and preferred methods of training. The data also encompassed safety culture, overall risk perception, and the reporting system in place within their respective organizations. The interview pointers are detailed below in Figure 4.

Fig. 4 The focus group interview pointers



Background research and existing scenario- MSI risks at residential care

Several initiatives have been taken to control MSI through healthcare systems. In general, there is a lack of research into the MSI risks of community social services sector. However, we may lean into research conducted in the healthcare system to learn about effective MSI prevention. The Provincial Safe Resident Handling Standards is one such initiatives for MSI Prevention in British Columbia, outlining an ergonomics/human factors approach to safe handling was developed recently (Vahlas, 2017).

The standard focuses into the following key areas:

- Organizational support and ongoing commitment to safety: policy level change to control to reduce the risk of injury and ensure quality care.
- Facility, equipment, physical environment: Focuses into appropriate facility/equipment/workplace design, to ensure the safety and well-being of residents and caregivers.
- Education and training: All caregivers/stakeholders/leaders educated appropriately to feel comfortable using equipment with their residents.
- Safe work practice standards: Risk assessments, ongoing training and education, regular audits

Number of organizations in the sector have developed and implemented safe resident handling practices for reducing the risk of MSIs due to resident handling activities, to improve the safety of both care providers and residents. There are still very many organizations that have participated in the focus group are trying to establish a system to implement such standards. Various studies showed that when organizational safety culture and practices are valued and practiced by leaders' employees participate in safety initiative naturally (Goodman, 2003) which reduces the injury rate eventually.

Engagement highlight

What they said?

Almost all participants agreed that there is a high prevalence of MSI risk across the sector. However not necessarily everyone (8 out of 11) agrees that they have enough mechanism or system available within their organization to address the need. Majority reported that still workplace violence takes the front seat when it comes to workplace injury prevention. (Table. 1, Appendix 1)

Reality vs perception:

The injury trends (Fig.4) indicates that the priority should be somewhere else. As the overexertion and repetitive motion injury (MSI) are going upward in the sector, this is high time to focus on developing control mechanism before it grows exponentially, and more money is spent and finally affect the services quality.

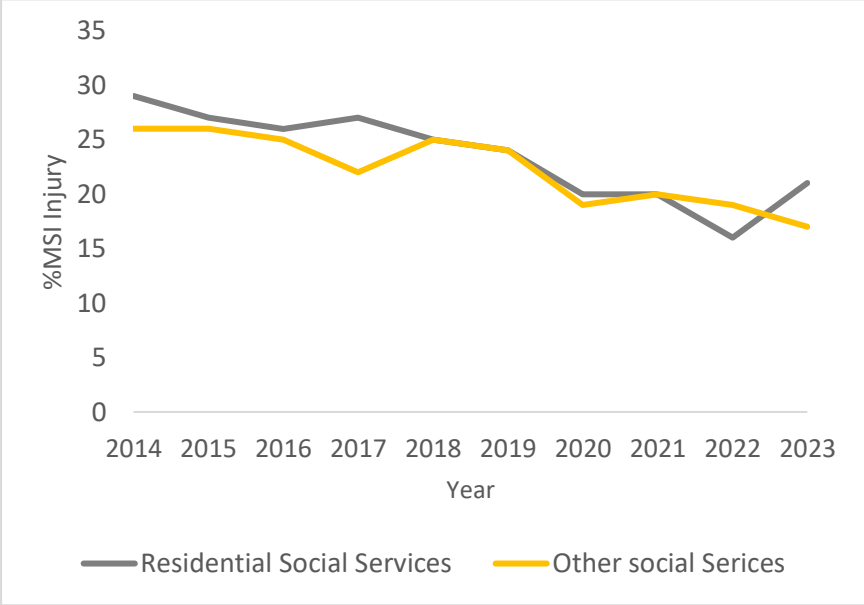


Fig 5. MSI Claims trend residential care vs other social services (Source: WSBC 2024)

"Workplace violence gets more focused especially in this sector than MSI compared to other sectors"

Key findings

After analysis of the collected responses and feedback from the participants it was understood that majority of the participating agencies had a basic Health Safety Management program. However, in many a case it needed upgrade and for some to establish a valid system to make it more efficient and functional. Responses are summarized under Table1 and Appendix 1

Table 1: Participants' responses

Interview Pointers		Responses
Perceived risk	Physical (e. g. MSI, manual handling)	Present (all participants agreed): carrying and helping clients, daily chores, pushing wheelchair, arranging and moving stuff, staff shortage, 24X7 working scenario etc.
	Psychophysical /Psychosocial (e.g. burn out, fatigue)	Present (everyone agrees, some thought more than physical): violent client behavior, constantly changing scenario, emergency, staff shortage, 24X7 working scenario
Training and awareness	Workplace safety, Ergonomics, MSI	Workplace safety: about half agrees okay Ergonomics and MSI: majority said no training offered that they know of. Some had MSI awareness training access through the portal
	Available training, method of delivery, frequency of offering	Virtual portal (for most) Time of Orientation & within 6 months of hiring Some hands on (e. g. using specific equipment) some virtual (e.g. material handling) Offered once mostly unless mandatory or need based
	Preferred (effective) method of MSI control training	In-person preferred (especially for front line workers). Mixed method might work. Challenge: bringing all together, budget, employee locations Interactive in any format -Loads of sector specific visual case studies All method works for supervisors/managers Train the trainer for managers
Safety culture and best practices	Existing Health Safety Management system	Majority had a system No proper MSI control program: majority agreed Half responded system somewhat works but needs updating Proper system to be established one agrees
	Communication channels (best practice, improvements, change management)	Majority agrees- needs to be improved Communication medium: emails, display boards, meetings Suggestion: needs more visuals for best practice

	Incident reporting	Majority had a system: first aid reporting No MSI early reporting system Verbal or underreporting: 4 agrees MSI is underreported: half agrees
	Accessibility	Older buildings are less accessible: majority agrees Needs awareness: yes

Risks identified

- √ Only 2 to 3 participants reported that they have a regular incident reporting system that work efficiently. No early MSI control or intervention system was in place in any of the organizations as reported by the participants. Almost no Ergonomics awareness training was provided for the employees in the agencies as reported. It was also shared that the staffs (especially residence support workers who handled residents) were exposed on only some level of manual material handling training.

- √ All participants agreed that there is both Physical (e. g. MSI, manual handling) and Psychophysical /Psychosocial (e.g. burn out, fatigue) risk factors present in the jobs done by the community services workers.

- √ The types of tasks that has high risk of physical injuries are carrying and helping clients (differently abled – both children and adults), helping clients with daily chores, pushing wheelchair, patient handling, arranging and moving stuff. Violent client behavior, constantly changing scenario, emergency contributes to the psychophysical risks. On top of that staff shortage, 24X7 working scenario, lack of resources adds additional risks. (Table)

- √ It was also understood that work related training is provided however the workplace safety best practices training are not always that robust. Especially Ergonomics and MSI control training was not commonly provided.

Tasks based perceived risks

Various tasks performed by the employees in residential settings were discussed during the focus group/interview sessions. Most tasks were common across the participating agencies. Details of tasks, potential MSI and associated risks (as reported) and probable workplace issues that may be contributing factors to the risks are included in the table below (Table 2).

It has identified that the majority of MSI risks to care-providers are due to resident handling and associated resident care activities in the sector in B.C. compared to other works resident handling care activities are particularly identified as high-risk tasks that impose significant postural stresses and force on care providers (Nelson, 2008). At times the exertion required to lift residents supersedes the caregivers' biomechanical capabilities as shown in research (Castro 2004). The other related tasks associate to the resident care facility also contribute to the MSI risks. Literature suggests that the maximum amount of weight a caregiver should be lifting under the most ideal conditions is 16 kg (Waters, 2007). It is evident that when the load exceeds what body can tolerate no amount of training in proper body mechanics or lifting techniques will

prevent injury from happening (Hignett, 2003; Nelson, 2004). More so when other organizational system design and workplace design limitations are there.

Table 2 Reported tasks, potential MSI risks and workplace design issues

Job Role	Tasks	MSI risks	Potential workplace/work design issues
Administrative staff (managers, supervisors, finance, operation, HR, etc.)	• Office work sitting at the desk /standing (in some cases) • Carrying/climbing stairs with documents, supplies while walking between workstations	• Prolonged sustained sitting • Awkward posture	• Space design/layout • Non-ergonomic workstation equipment • Non-optimal workstation set up • Work design (absence of microbreaks and change of posture) • Lack of training/ education: ergonomics best practices/MSI control
Building attendants	• Monitoring activities /surveillance in the buildings while sitting • Lifting, carrying/climbing stairs with supplies • Responding to emergencies (e.g., assisting with evacuations)	• Prolonged sustained sitting • Awkward posture • Load Lifting/carrying /climbing • Pushing/pulling	• Building design/layout/accessibility • Non-optimal workstation set up • Work design (absence of microbreaks and change of posture) • Lack of training/ education: ergonomics best practices/MSI control
Residence support workers (adult/children)	• Lifting, transferring/ repositioning residents • Assisting with bathing, dressing, and grooming • Assisting with mobility and walking • Feeding/helping with eating	• Manual handling of residents • Pushing/pulling (while maneuvering wheelchair) • Repetitive bending, twisting, and lifting • Handling heavy or awkward loads (e.g., patients with limited mobility)	• Lack of patient handling equipment • Non ergonomic/faulty mobility/aid equipment • Non-appropriate facility design/accessibility • Lack of safe work practice standards • Work design (shift system/fatigue management) • Lack of training/ education: ergonomics best practices/MSI control

Community support workers	• Meal preparation/ cooking for residents • Providing transportation /accompaniment to appointments • Lifting/assisting with transport of residents in wheelchairs/stretchers • Loading and unloading supplies • Moving furniture or heavy equipment	• Lifting/carrying heavy pots, pans, and food items • Repetitive hand arm movements during meal prep • Pushing/pulling • Forceful exertion on wrist/arm while chopping • Prolonged standing • Lifting residents/ assisting with mobility	• Space and facility design issues (e.g. layout, flow, ingress/egress, accessibility) • Non ergonomic/faulty mobility/aid/other workplace equipment • Lack of safe work practice standards • Work design (shift system/fatigue management) • Lack of training/ education: ergonomics best practices/MSI control
Custodians / shelter workers	• Cleaning rooms, bathrooms/common areas • Lifting and carrying heavy cleaning equipment (e.g., vacuum cleaners, buckets) • Making beds	• Frequent Bending, lifting, twisting and overreaching • Repetitive hand arm movement • Load Carrying • Pushing/pulling carts	• Space and facility design issues (e.g. layout, flow, ingress/egress, accessibility) • Lack of safe work practice standards • Lack of training/ education: ergonomics best practices/MSI control
Life skills workers	• Assisting residents with daily living activities (e.g., budgeting, cooking, hygiene) • Supporting residents in skill-building exercises • Accompanying/assisting residents to appointments/activities	• Pushing/pulling (e.g. wheelchair) and carrying • Prolonged standing or at times walking while	• Space and facility design issues (e.g. layout, flow, ingress/egress, accessibility) • Lack of safe work practice standards • Lack of training/ education: ergonomics best practices/MSI control
Maintenance workers	• Moving furniture or heavy equipment • Performing repairs that involve awkward postures or lifting • Cleaning or servicing large machinery	• Lifting and carrying heavy equipment • Pushing/ pulling • Awkward twisting, bending of body parts • Overreaching • Repetitive hand arm movement,	• Space and facility design issues (e.g. layout, flow, ingress/egress, accessibility) • Lack of ergonomic equipment supply • Lack of safe work practice standards • Lack of training/ education: ergonomics best practices/MSI control

		twisting of hand arm • Forceful exertion • Possible exposure to hand arm vibration	

Identified gap

- √ Based on the focus group, informal interviews, and background research, there is a considerable gap in the perception and understanding of injury risks across the sector at the leadership level. Table 3 lists the detailed risk factors, major causes, and potential solutions at the organizational level.
- √ Most participants agreed that there is a continuous focus on the psychological/psychosocial issues (especially into bullying and harassment / violence prevention) compared to MSI prevention. However, the claim statistics shows otherwise, where over exertion and repetitive motion injuries (MSI) are trending into upward direction (Fig. 5).
- √ It was also reported that there is a far smaller number of awareness session and training on Ergonomics and MSI control is provided within the sector. Unavailability of specific training tailored to the sector also may have contributed to this.

Major bottlenecks

- √ The primary bottlenecks in implementing MSI control program and training are identified by the participants and summarized above (Table 2). Apart from time constraints and resources allocation one of the key factors were management buy in. In most cases investing on MSI found to be reactive as reported. Several studies from other industry sector also shows similar tendency (Tompa E 2013). The primary reason could be that the MSI progresses gradually over the time and the control is more system level than perceived.
- √ At times awareness level among the people doing safety is not enough to understand when a professional (e.g. Ergonomist) has to be called in. Many a times the mangers or supervisors wearing multiple hats and doing safety. For instance, HR manager carrying out additional responsibilities to manage safety at the organizational level on top of regular HR job single handedly. However, most of the participating organization tend to agree that they may need to change the perspective soon enough.
- √ Some also suggested that funding model of the sector could be also the bottle neck to take proactive approaches into MSI / other injury preventions

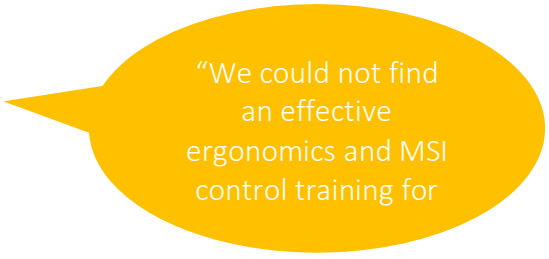


Table 3: Identified gap and proposed solutions

Factors affecting	Reason	Proposed solution for the participating organizations
Organizational support and ongoing commitment to safety:	1. Lack of policies, documentation to control /reduce the risk of injury and ensure quality care 2. Shortage of leadership commitment (safety culture) to integrate safety and Ergonomics into all activities and decisions related to operations, capital, and care delivery design.	• Perform gap analysis at the organizational level to understand the existing limitation • Set operations and safety goals based on the outcome • Strategize on how to achieve those goals • Allocate resources internally and externally as needed • Involve all stakeholders (participatory approach)
Facility, equipment, physical environment design	1. Absence of appropriate facility/equipment/workplace design, to ensure the safety and well-being of residents and caregivers. 2. Lack of ergonomic equipment supply, maintenance, storage to reduce the risk of injury and ensure quality care.	• Risk assessment to identify the root cause behind the MSI and other injuries, both at the facility level and process level • Ergo-design audits • Reassess the risk in case of process change, procuring new equipment
Education and training	1. Limited training/education on ergonomics and MSI control practices provided to caregivers/stakeholders 2. Limited awareness on the ROI (return on investment) of investment on proactive Ergonomics (HF/E) concepts in controlling MSI among the leadership (executives, managers, supervisors)	• Train all levels of stakeholders on Ergonomics and MSI control including Leadership Managers/supervisors Employees /others who may participate in the caregiving process • Design Ergonomics (HF/E) training specific to the job (e.g. patient handling, office ergonomics, Manual material handling etc.) • Appropriate training should be available during orientation, on the job and when needed (e.g. new job/equipment) • Maintain training record
Safe work practice standards:	1. Lack of Risk assessments, ongoing training and education, regular audits/inspection	• Effective care planning – resident assessment and plan for reassessment

	2. Lack of documentation on incident reporting, best practices (e.g. Safe work procedure) 3. Limited available resources and equipment	• Ensure Documentation and communication channels of safe-work practice, procedures • Point of care (POC) risk assessment • Regular audits/inspections • Plan for ongoing education and training • Policies around the ergonomic equipment availability, procurement and other engineering control mechanism for quality services and injury prevention. • Effective management strategies to support safe practices

Table: 4 Bottleneck for training - system factors

	Management perception & priority • Focus on controlling workplace violence • Less awareness in value proposition of MSI prevention • Less awareness on Return on Investment (ROI)
	Time constraints • Sessions during work hours conflict with daily tasks and availability in busy schedules. • Sessions are scheduled when employees are off work.
	Resources • Limited financing/budgeting for training sessions. • Funding model (not for profit)
	Staffing issues • No coverage during training sessions, arranging replacement is challenging and costs money • Staffs are spread across various locations, challenging getting them in one location
	Access to technology • Lack of access while with client.

"Training focusing into MSI early sign and symptoms, early intervention methods to control will be much helpful"

Next steps

Suggested recommendation for CSSHSA: leadership approach

- √ It is evident from the background research and focus group engagement that CSSHSA may need to introduce a multiprong approach to help fulfilling the existing systems gaps found at the social services agencies in their safety practices, particularly around Ergonomics and MSI control.

- √ This could be achieved through providing continuous guidance, consulting, offering various risk assessment services, developing risk assessment tools, training and resources catering to the sector. Above systems engineering initiative for patient safety model (Fig.6) could work well into this context as well. Like healthcare, social services sector is also multifaceted, dynamic and could be considered as a complex sociotechnical system (Sujan et al 2021). For CSSHSA to be there to help in the capacity of guidance, resources, consulting and risk assessment services could positively influence the ability to deliver the service by these organizations to its customers.

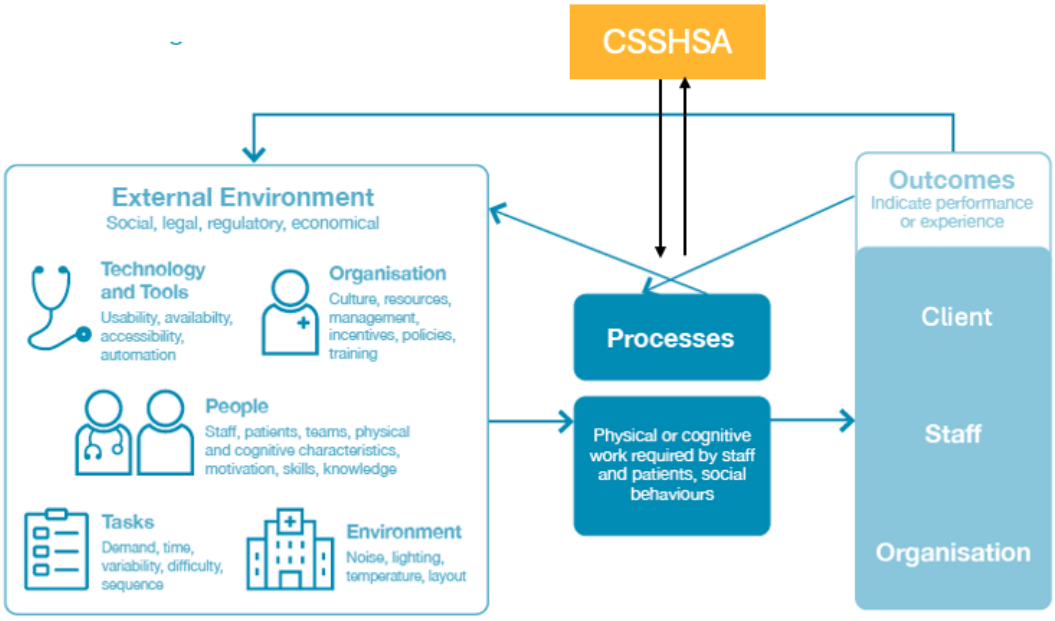


Fig.6 Proposed working model: adopted based on the of systems engineering initiative for patient safety (SEIPS) model (Sujan et al 2021)

Table 5: Recommended potential services offering by CSSHSA

Factors	Proposed guidance/ services by CSSHSA
Addressing systems and organizational level	1. Gap analysis services helping organizations to understand the existing limitation at the organizational system level 2. Guiding, consulting while involve all stakeholders (participatory approach) 3. Help developing/providing tool for gap analysis and other areas
Facility, equipment, physical environment design areas	1. Offering Ergo-Risk assessment Services to identify the root cause behind the MSI and other injuries, both at the facility level, job and process level (e.g. Office Ergonomics assessment, Ergonomics Safe lifting assessment etc.) 2. Ergo-design Services (e.g. analyzing the facility design if it suffices the need of all the users, Ergonomics input in procuring appropriate equipment etc.)
Education and training	1. Build the awareness around Ergonomics and MSI control across the sector 2. Develop and offer training for various levels of stakeholders on Ergonomics and MSI control including Leadership managers/supervisors/ Employees /others who may participate in the caregiving process 3. Design and develop Ergonomics (HF/E) training specific to the job (e.g. client handling, office ergonomics, manual material handling etc.) to be offered based on the request 4. Offer both awareness and train the trainer type of training (e.g. Office ergonomics, how to develop MSI control program etc.) 5. Develop targeted Ergonomics and MSI control best practice visual aids for different type of job settings 6. Webinar, community engagement best practice seminar on Ergonomics, MSI control, other safety practices

MSI awareness initiative steps to follow

- √ As reported by the participants that a blended approach of training is the best way to move forward. Research also suggests that blended approach to training and education delivery improves access to training opportunities, provide content consistency, and support different learning styles (Pulichino, 2006). One of the other key themes emerged was awareness among the leaders and the decision makers on the Return on Investment (ROI) on Ergonomics concepts could help investing more into proactive MSI control. Hence for the immediate next steps could be to start with the development of the MSI prevention awareness level training for the leadership.

- The training at this level could be virtual (e.g. e-learning module). The approach should be participatory, engaging with the subject matter expert, design team. At a later phase when the beta version of the training is ready, the other valued stakeholders (e.g. organizational leaders / workers) to be involved for trial run, usability and effectivity. Once testing is done and updates (if any) are incorporated a phase wise lunching based on the implementation plan is to be carried out (refer Fig.7).

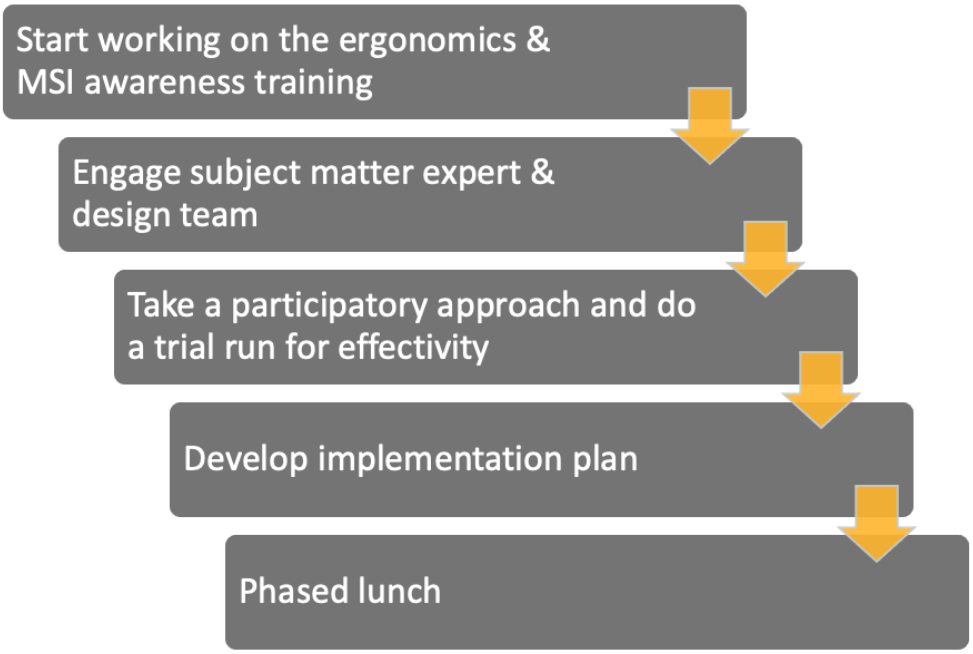


Fig.7 Strategic idea for roadmap for 1st level MSI control training launch

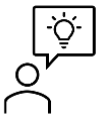
What works best for MSI prevention training?

- Based on the need analysis engagement the following key points are identified that will be helpful to strategize an effective MSI control training initiative (Table 6). To start with a MSI awareness training campaign could be useful to adopt a multi prong approach starting with a virtual offering, followed by an in-person and mixed method (combining virtual and in-person) training approach.

- Side by side various webinar session, ask an ergonomist kind of initiative engaging industry partners and stakeholder can be run. On several occasions during the focus group participants were eager to know about what others (agencies) were doing to control MSI. Therefore, providing a safe space (e.g. seminars, networking events) to discuss and exchange best practices will be helpful as well.

√ For promoting sustained change, the best way is to combine formal training with informal learning events on the job. Though this approach learning happens not only before doing something new, but also when applying the new skill, while problem solving, and during incident debriefs.

Table: 6 Key factors to be considered for developing a MSI prevention training

	1. Tailored content and realistic scenarios: • Design training content that considers specific roles and settings. • Incorporate realistic scenarios with effective visuals to improve awareness
	2. Regular and varied training opportunities: • Provide training sessions throughout the year for better accessibility. • Offer a variety of learning formats, including workshops, seminars, and online modules to accommodate diverse schedules. • Mixed method initially starts virtually follow up with in person
	3. Comprehensive skills and techniques: • Cover a wide range of scenarios with example of ergonomics tools.
	4. In-person, interactive training with hands-on practice: • Prioritize in-person training sessions with interactive elements/ role-playing. • Incorporate hands-on practice with real life scenarios through participatory approach
	5. Systemic changes and employer commitment: • Advocate for systemic changes to prevent MSI and enhance staff safety and productivity. • Explore more classroom training for additional workers. • Encourage senior leadership and JHSC oversight to ensure accountability in training attendance.

Project limitation:

This project was completed based on focus group discussion/ interview and background research as agreed and outlined under the project scope and approach. The risks are presented based on the input from the participants followed by literature and document review. For detailed systemic ergonomic risk assessment, a further onsite (at the resident care facility) assessment is recommended.

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Appendix 1 Participant response table summary

Company	Employee size	Services provided	Job Role	Interview Pointers								
				Perceived Risk		Training and awareness			Safety Culture and best practices			
				Physical (e. g. MSI, manual handling)	Psychophysical /Psychosocial (e.g. burn out, fatigue)	Workplace safety, Ergonomics, MSI	Available training, method of delivery, frequency of offering	Preferred (effective) method of MSI control training	Existing Health Safety Management system	Communication channels	Incident reporting	Accessibility
Company 1	500+ (CORE certified)	Community Inclusion, Home Living, Employment Service, Behavior Support Service	Director HR/ Labor Relations	Manual handling: Yes (varies based on the services e.g. lifting, carrying, household chores, patient handling, wheelchair pushing)/sudden peak in MSI	Fairly stable, reduced over the years	Fairly well due to the robust system they have / Ergonomics training: yes/Mandatory MSI awareness training	Online courses (internally developed virtual ergonomics training) tied to onboarding, no refresher	A combination (online and in person) method/lift transfer type of training in person best	Well managed, safety culture survey each year with high score, Risk assessment done engaging consultant (e.g. OT /Ergonomist), program review, active JHSC	Emails, training/awareness drive, surveys, display boards	Robust system, encourage regular reporting No early MSI intervention or reporting (1.3 lost time/100 worker)	Somewhat accessible older buildings are less accessible
Company 2	600+	Child & Youth Services for special needs including respite, kids club, and one-on-one	Manager Supportive Housing	MSI/Manual handling: Yes (varies based on the services) adult support group more MSI risk	Yes - burnout because of the nature of the support	Not optimal/no system in place to remind employees about OHS	Supervisor, HR led training during orientation/some MSI awareness / no regular refresher	In person for 1st time, refreshers online or virtual/ combination might work	Somewhat working could be better	Lacks communication	Through first aid reporting / no early reporting for MSI control	Somewhat accessible older buildings are less accessible

Company 3	1000+ (CARF certified)	Child & Youth Services, Employment, Community Inclusion, Home Share, Supported Independent Living, Residential Support	OHS Manager	MSI/Manual handling: yes (Lifting, overreaching)	Yes/ fatigue too because of the job nature/psychosocial &MSI may combine too	Fairly well some level of online MSI awareness training/resources	Supervisor, HR led, safety manager training during orientation/some MSI awareness / refresher if need be	In person is the best by an external expert/zoom based may work too if interactive enough	Somewhat working / improving at the system level to make it robust	Training awareness initiative, emails, display board	system is in place but fear of injury reporting / no early reporting for specific MSI control (30-40% MSI, ~14%STF)	New buildings are more accessible than the older ones/employee awareness on accessibility may not be optimal
Company 4	1000+	Supportive Housing Programs, Harm Reduction, Recovery Program, Health Services	OHS Advisor	MSI/ Manual handling: Yes (varies based on the services)	Yes - based on the nature of the job	She is not sure but doesn't feel optimal / no Ergonomics training but may have some MSI awareness	Supervisor, HR led training during orientation/some MSI awareness / no regular refresher	Combination: workers are scattered at various location	Somewhat working could be better	Lacks communication /training awareness initiatives	Some level/could be better incident logs available not optimal reporting (4-5 MSI in last 4 months)	Not sure
Company 5	350	Services for children, youth, and adults with intellectual disabilities	Program Director	MSI/Manual handling: Yes (varies based on the services e.g. lifting, carrying, household chores, patient handling, wheelchair pushing)	Yes - burnout because of the nature of the support	May be less than expected/no Ergo training (could not find training specific to the sector)	Supervisor, HR led training during orientation/some MSI awareness / no regular refresher	Combination due to types of services, refresher virtual /follow up in person (in-person difficult due to resources allocation)	Somewhat working could be better / Accident /incident investigation needs to improve	Emails, training/awareness drive, surveys, display boards	Through first aid reporting / no early reporting for MSI control (~75% MSI - focus to reduce it)	Mostly accessible -some are not / focusing into accessibility

Company 6	650	Support services for children, youth, adults, and seniors	Manager of OHS	MSI/ Manual handling: Yes (varies based on the services e.g. lifting, carrying, household chores, patient handling, wheelchair pushing), MSI is higher	PTSD is high (out for long time: due to assessment time), violence is a problem	Fairly well (improved than earlier) /Generic MSI awareness	Generic MSI awareness, Supervisor, HR led training during orientation/some, MNDT training system for violence	Combination due to types of services, start with virtual /follow up in person (some are not good with online training) prefers in person aspect of training	Stable OHS management system (at the beginning of her tenure ERA was 85% now 6.5%) no early MSI intervention/reporting	Emails, training/awareness drive, surveys, display boards	Regulate 1st aid reporting, no early MSI intervention/reporting, MSI reduced over the years (50% now) but physical/psychophysical combination injury increased	Most facilities are accessible, employees may need awareness
Company 7	440	Housing and shelter, Health, wellness and support	Manager, OHS	MSI/Manual handling: Yes (varies based on the services e.g. lifting, carrying, household chores, patient handling, wheelchair pushing), MSI is higher	Yes - as emotion plays a huge role in certain circumstances	Moderate - leaders may need to aware on long term MSI impact	Mandatory onboarding training led by training department/ Site orientation training, other OHS training	Combination: depends on the interactivity / preference on in-person, for senior leadership any training works	Fairly well OHS system, good reporting culture, own internal tracking system on incidents and near misses/ no early MSI reporting or intervention system	Emails, training/awareness drive, surveys, display boards	Regular first aid reporting system, own internal tracking system on incidents and near misses/ no early MSI reporting or intervention system (MSI %aligns with the sector)	Mostly accessible -only one facility has accessibility issues

Company 8	440	Housing and shelter, Health, wellness and support	Training Manager	MSI/Manual handling: Yes (varies based on the services e.g. lifting, carrying, household chores, patient handling, wheelchair pushing), MSI is higher	Yes - based on the nature of the job/ time on the job	Moderate (awareness is more on the psychosocial hazards than MSI)	Mandatory onboarding training led by training department/ Site orientation training, other OHS training	Combination : depends on the interactivity / preference on in-person, for senior leadership any training works	Fairly well OHS system, good reporting culture, own internal tracking system on incidents and near misses/ no early MSI reporting or intervention system / lack of buy in on MSI control	Emails, training/awareness drive, surveys, display boards	Regular first aid reporting system, own internal tracking system on incidents and near misses/ no early MSI reporting or intervention system (MSI % aligns with the sector)	Mostly accessible -only one building has accessibility issues
Company 9	90	Residential home, Day program, home share for adults	HR Manager	MSI yes, Manual handling: Yes (varies based on the services e.g. lifting, carrying, household chores, patient handling, wheelchair pushing)	Yes - based on the nature of the job	Not optimal, no Ergo training, some specific training for equipment handling / tons of gap	Supervisor, HR led training during orientation/no regular refresher/ some specific training for equipment handling (not enough training budget)	Ideally prefers in person/ Combination : budget, resources allocation	Somewhat working could be better / Run by HR department / no early MSI reporting or intervention system /no MSI control program	could be better: Emails, training/awareness drive, display boards	Regular first aid reporting system (needs work) MSI 50-60% - 10 workers out at a given time/supervisor supports frontliners due to staff shortage/ no early MSI reporting system	Fairly accessible

Company 10	100+	Home share, Activity Services, Employment Services	Home Share Coordination Manager	MSI/Manual handling: Yes (varies based on the services e.g. lifting, carrying, household chores, patient handling, wheelchair pushing), MSI: backpain, muscle strain, overexhaursion	Yes - based on the nature of the job/burnout	Not optimal, no Ergo training, some specific training for lift and transfer	Supervisor, HR led training during orientation/no regular refresher/ some specific training for lift and transfer	Ideally prefers in person/ may chose Combination or virtual: resources allocation, virtual workshop style may work	Somewhat working could be better / no early MSI reporting or intervention system /no MSI control program	Emails, training/awareness drive, display boards	Regular first aid reporting system MSI ~40% /no early MSI reporting system	Moderately accessible / accessibility awareness needed
Company 11	700+	Provides a range of housing and support services, temporary shelters, transitional housing, long-term housing, housing for women-led families	Health and Safety Advisor	MSI/Manual handling: Yes (varies based on the services e.g. lifting, carrying, household chores)	Yes - based on the nature of the job/burnout	Not optimal, no Ergo/MSI training	Supervisor, HR led training during orientation/no regular refresher/ bullying and harassment training	Ideally prefers in person/ bringing people together challenging due to logistics and resources	Somewhat working needs lot of work (JHSC not fully functional)	Not optimal communication between management and workers	No proper reporting system (only verbal) /huge gap	New buildings are more accessible than the older ones

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