Survey of Safe Patient Handling Activities in Massachusetts Hospitals

Occupational Health Surveillance Program
Massachusetts Department of Public Health

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Acknowledgements

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Executive Summary

Workers in Massachusetts hospitals, like workers in hospitals nationwide, are at high risk of being injured on the job. Musculoskeletal disorders (MSDs) caused by overexertion (which includes heavy lifting), repetitive motion, and bending or twisting are among the most common injuries experienced by hospital workers. These disorders account for close to 50% of all injuries among healthcare workers that require time away from work among Massachusetts hospital workers, or more than 1,870 MSDs in 2011. According to estimates from the Bureau of Labor Statistics, during 2004-2011, the MSD rate for workers in Massachusetts hospitals was consistently higher than the rate for workers in hospitals nationwide). MSDs among hospital workers are costly. Not only do they cause preventable human suffering and impose direct health care costs but they also result in thousands of lost work days and other indirect costs borne by health care workers, hospitals and ultimately the health care system at large.

Manual handling of patients is recognized as the primary cause of MSDs among the health care workforce and has implications for patient safety as well. Comprehensive safe patient handling (SPH) programs that minimize manual handling of patients have been found to reduce the risks of MSDs among workers and associated costs in both nursing homes and hospitals. Comprehensive SPH programs have a number of interrelated components including, among others, requirements for use of patient handling equipment, training in use of equipment, and use of injury data to inform prevention and continuous quality improvement. Management commitment and mechanisms for worker involvement are also essential. Such programs are now required in a number of states.

In January 2012, the Occupational Health Surveillance Program (OHSP) in the Massachusetts Department of Public Health (MDPH) established a Hospital Ergonomics Task Force to develop recommendations to address the high rate of MSDs among Massachusetts hospital workers, with a focus on patient handling. To obtain baseline information about current safe patient handling (SPH) policies and practices in Massachusetts hospitals and to inform Task Force deliberations, in April 2012, OHSP conducted a mailed survey of all 98 hospitals licensed by MDPH. Eighty-eight hospitals responded for a response rate of 90%.

Key findings

- Overall, 44% (37) of hospitals reported having a written SPH policy in practice. Another 22% (19) had a policy under development; 34% (29) of hospitals reported having no written SPH policy either in practice or under development.
- Non-acute care hospitals were more likely to have a written SPH policy in practice (72%, 13) compared to acute care hospitals (24%, 24).
- 65% (57) of hospitals had a committee or group working to prevent patient handling injuries, and 19% of hospitals had neither a SPH policy nor a committee in place.
- Almost all hospitals (94%, 83) had a protocol for the assessment of patient functional mobility and transfer needs on admission for inpatients. Only 62% (49) of hospitals did the same for outpatients.
- While all hospitals provide workers with training on use of mechanical lifts and assistive devices, only 34% provide training both on hire and annually.
- Almost all hospitals (98%, 86) had systems for tracking injuries to workers associated with patient handling, yet in only 61% (54) of these hospitals were the data reviewed by the departments in which the injuries occurred.
- The most frequently reported barriers to addressing SPH in Massachusetts hospitals were: perceived increase in time to use equipment, hard for staff to break habits, and cost of equipment. Storage space and room size were also identified as common barriers.

These survey results provide previously unavailable information about the status of SPH policies and practices in Massachusetts hospitals and can serve as a baseline for monitoring progress in developing SPH programs over time. Findings indicate that while most hospitals have taken steps to improve patient handling to protect worker and patient safety, there is clearly need for improvement. Hospitals are in different stages of developing comprehensive SPH programs that minimize manual handling of patients, and there is an opportunity for hospitals to learn from each other, across service types, as they move forward. MDPH looks forward to continuing to work with Massachusetts hospitals and hospital workers to facilitate the development of comprehensive SPH programs.

Introduction

According to official estimates from the Bureau of Labor Statistics, more Massachusetts hospital workers are injured on the job than workers in any other single industry.[a] In 2011, over 9,800 workers in Massachusetts private hospitals were injured on the job; close to half of these workers were injured seriously enough to lose time away from work. The large number of injuries may not be surprising given that the hospital industry is the largest industry in the state, employing approximately 6% of the Massachusetts workforce (BLS, 2011). However, similar to findings for hospitals nationwide, the rate of lost time injuries among workers in Massachusetts hospitals is also high. In 2011, this rate was 2.9 injuries per 100 full time workers, exceeding the rate of 1.4 for all of private industry, and higher than the rates for manufacturing (1.3), retail (1.4), and construction (2.4). While during 2004 and 2011 the lost time injury rate for workers in all Massachusetts industries combined declined by 21%, during this same time period, the rate for Massachusetts hospital workers did not decrease (BLS, 2011).

Musculoskeletal disorders (MSDs)[b] caused by overexertion (which includes heavy lifting), repetitive motion, and bending or twisting are among the most common injuries experienced by hospital workers, and over half involve the back. These disorders account for close to 50% of all injuries that require time away from work among Massachusetts hospital workers - more than 1,870 injuries in 2011 (BLS, 2010). Strikingly, the MSD rate for workers in Massachusetts hospitals has been at least 70% higher than the rate for workers in hospitals nationwide every year since 2004 for which data are available.[c] In 2011, the MSD rate for Massachusetts hospital workers was 1.3 per 100 workers compared to a rate of 0.7 per 100 workers in hospitals throughout the country (BLS, 2010). The extent to which this marked difference may be due to better injury reporting practices or higher underlying risks in Massachusetts hospitals compared to hospitals nationwide is not known. Regardless of the explanation for the difference, these findings highlight an important public health problem in Massachusetts that needs to be addressed.

MSDs among health care workers impose substantial human and economic costs. In addition to preventable human suffering and direct health care costs, these disorders result in thousands of lost work days and other administrative costs borne by healthcare workers, hospitals and the healthcare system at large. Direct and indirect costs associated with back injuries alone in the healthcare industry nationwide have been estimated to be $20 billion annually (VA, 2005). MSDs also cause individuals to leave the field, contributing to the shortage of healthcare personnel. In one study,

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[a] The BLS date on which these figures are based are limited to private sector workers and include both work-related injuries and illnesses. Ninety-five percent of the cases among hospital workers are injuries and the term “injured” as used here encompasses both

[b] Musculoskeletal disorders are disorders or injuries of muscles, tendons, nerves, ligaments, joints, or spinal discs.

[c] BLS data on work-related injuries and illnesses are not available for Massachusetts for 2009; that year Massachusetts did not participate in the BLS Survey of Occupational Injuries and Illnesses.

47% of nurses had considered leaving their profession because of the physical demands of the job (Peter D. Hart Research Associates, Inc. 2006).

Manual handling of patients (lifting, transferring and repositioning) is recognized as the primary cause of MSDs among the health care workforce and has implications for patient safety as well. An aging population and increasing obesity – trends seen in both patients and health care workers exacerbate risks. Back and shoulder disorders associated with patient handling are common among nurses. One study of hospital nurses found an annual incidence of 34% reporting back/neck/shoulder pain related to reaching, pushing and pulling patients while repositioning (Smedley et al., 2003). In a recent study, 84% of nursing respondents reported ever having work-related low back pain that limited movement or interfered with routine activities; 36% reported such pain in the last year (Byrns, et al., 2004).

Comprehensive safe patient handling (SPH) programs that minimize manual handling of patients have been found to reduce the risks of MSDs among workers and associated costs in both nursing homes and hospitals (Li et al., 2004 and Collins et al., 2004). Comprehensive SPH programs have a number of interrelated components including, among others, requirements for use of patient handling equipment, training in use of equipment, and use of injury data to inform prevention and continuous quality improvement (AOHP, 2011). Management commitment and mechanisms for worker involvement are also essential (AOHP, 2011). Such programs are now required in a number of states (ANA, 2013).

In January 2012, the Occupational Health Surveillance Program (OHSP) in the Massachusetts Department of Public Health (MDPH) established a Hospital Ergonomics Task Force to develop recommendations to address the high rate of MSDs among Massachusetts hospital workers, with a focus on patient handling. Task Force members include representatives of hospitals, health care worker unions and government agencies, as well as academic researchers and ergonomics experts. To obtain baseline information about current safe patient handling (SPH) policies and practices in Massachusetts hospitals and to inform the deliberations of the Hospital Ergonomics Task Force the MDPH OHSP conducted a mailed survey of Massachusetts acute and non-acute care hospitals licensed by MDPH in April 2012.

Methods

The survey questionnaire was adapted from a Washington State Department of Labor and Industries survey and incorporated input from the Task Force. The survey collected information about:

- SPH policies and procedures
- Presence of - a committee addressing SPH
- Patient mobility assessment practices
- Assessment of SPH practices
- Injury surveillance
- Availability of patient handling equipment
- SPH training

It also included questions about perceived barriers to the use of patient handling equipment and suggestions for what MDPH can do to help hospitals promote SPH.

The survey was mailed to the CEOs and employee health staff of the 98 MDPH licensed hospitals. Follow-up of non-responders was conducted by mail, email, and phone. Percentages of survey responses were calculated excluding hospitals with missing information from the denominator, as not all hospitals responded to each question. Results were stratified by several hospital characteristics including: size (small, medium, and large), type (acute, non-acute) and teaching status (teaching, non-teaching). Differences between hospital groups were assessed using standard statistical methods. Results are presented for all hospitals combined. Differences by hospital characteristics are included only when statistically significant ($p<0.05$).

Results

Eighty-eight hospitals completed the survey for a response rate of 90%. Almost three-quarters of individuals completing the survey were in management positions and almost half of the respondents worked in Occupational Health/Employee Health.

Hospital Characteristics

- The distribution of respondent hospitals by teaching status, service type, and hospital size was similar to the actual distribution of all MDPH licensed hospitals.
- The number of employees ranged from 140 to 20,000
  - On average, 64% of employees were directly involved in patient care.
- In total, the estimated number of employees involved in direct patient care across all respondent hospitals was 101,751.

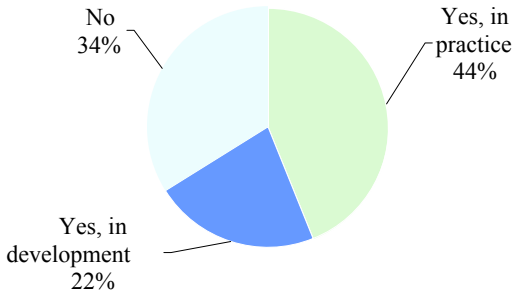
Table 1: Respondent Hospital Characteristics (n=88)

	n	(%)
Teaching Status		
Teaching	17	19
Non-teaching	71	81
Hospital Type		
Acute care	70	80
Non-acute care	18	20
Hospital Size		
Small (0-100 beds)	26	30
Medium (101-300 beds)	48	55
Large (>300 beds)	14	16
Mean number of employees		2,000
(range)		(140-20,000)
Median number of employees		1,107

Written Safe Patient Handling Policies

- Overall, 44% (37) of hospitals reported having a written SPH policy in practice and an additional 22% (19) of hospitals reported that a SPH policy was under development. 34% (29) of hospitals reported having no written SPH policy.
  - Non-acute care hospitals (72%, 13) were more likely to have written policies, in practice, compared to acute care hospitals (34%, 24). (p=0.005)

Figure 1: Percentage of hospitals with written SPH policies (n=85)



Length of time written policy has been implemented

- A majority of hospitals (54%, 20), with written SPH policies in practice, implemented their SPH policies within the last 4 years.

Table 2: Length of time written policy has been implemented (n=37)[1]

	n	%
<1 year	2	5
1-4 years	18	49
>4 years	17	46

[1]Limited to hospitals with written SPH policies

Safe Patient Handling Policy Components

- Hospitals' policies covered a wide variety of topics
  - More hospitals reported having components regarding clinical practice than those addressing equipment or injury surveillance.
  - Most policies addressed employee training in use of lifting equipment (77%, 27) and to a lesser extent, training in the assessment of patient mobility (66%, 23).
  - Only 9% (3) of hospitals' policies addressed special provisions for employees under the age of 18, even though federal Child Labor Laws place some restrictions on use of hoisting devices including patient lift equipment by persons in this age group (Leppink, 2011).

Table 3: Safe Patient Handling Policy Components (n=35)[1]

	n	%
Clinical Practice		
Assessment of patient functional mobility and transfer needs	30	86
Guidelines for selecting the appropriate patient handling method	26	74
Patient skin integrity/ prevention of breakdown	12	34
Prevention of patient falls	23	66
Equipment		
Accessibility, maintenance, and replacement of lifting equipment	22	63
Injury surveillance		
Reporting of injuries that are related to patient handling	22	63
Reporting of near misses or incidents without injury that are related to patient handling	15	43
Training		
Training of employees on the use of lifting equipment	27	77
Training in assessment of patient mobility and transfer needs	23	66
Patient and family education	17	49
Other		
Compliance of employees with policy requirements	21	60
Special provisions for employees under the age of 18	3	9

[1]Limited to hospitals with written SPH policies and excludes missing observation(s)

Evaluation and oversight of patient handling procedures

- All hospitals implemented methods to evaluate patient handling policies and procedures. Most (89%, 77) used multiple methods:
  - The most frequently used methods were reviewing staff injury rates (89%, 77) and adverse event reports (75%, 65).
- Nursing staff were most often reported as being involved with the oversight of patient handling policies and procedures (64%, 56), followed by occupational health staff (46%, 40) and other departments (35%, 30).
  - 22% (19) of hospitals reported physical therapy/rehabilitation staff was involved in oversight of patient handling policies and procedures.

Table 4: Evaluation and oversight of patient handling procedures (n=87)[1]

	n	%
Evaluation of patient handling policies and procedures[2]		
Reviewing staff injury rates relating to patient handling	77	89
Reviewing individual adverse events relating to patient handling	65	75
Reviewing injury cost data	54	62
Interviews with staff	46	53
Staff surveys	42	48
Patient satisfaction surveys	35	40
Other	15	17
Staff involved in the oversight of patient handling programming, policies, and procedures		
Any nursing	56	64
Nursing only	17	20
Nursing and occupational health	8	9
Nursing, occupational health, and other department	18	21
Nursing and other department, not occupational health	13	15
Occupational health only	10	12
All other	21	24

[1]Excludes missing observation(s)
[2]Respondents were asked to select all applicable responses; therefore, percentages may not add to 100

Committees to prevent patient handling injuries

- 65% (57) of hospitals had a committee or group working to prevent patient handling injuries.
- Health and safety/Injury prevention committees were most often identified as the committee working to prevent patient handling injuries (53%, 30).
  - 32% (18) hospitals had specific SPH committees, while 7% (4) hospitals had Ergonomics committees
- Almost all hospitals with committees working to address patient handling injuries had nurses on the committee (97%, 55); 77% (44) of the committees included physical therapists and 70% (40) included occupational health staff.

Table 5: Committees to prevent patient handling injuries

	n	%
Committee or group working to prevent patient handling injuries (N=88)		
Yes	57	65
Type of committee to prevent patient handling injuries (n=57)[1,2]		
Health and safety/Injury prevention	30	53
Safe patient handling/Ergonomics	22	39
Risk management	7	12
Environment of care	6	11
Falls	4	7
Other	5	9
Persons on committee to prevent patient handling injuries (n=57)[1,2]		
Nurses	55	97
Physical therapists	44	77
Occupational health staff	40	70
Other direct patient care staff	34	60
Occupational therapists	25	44
Physicians	18	32
Other	39	68

[1]Limited to hospitals with patient handling committees
[2]Respondents were asked to select all applicable responses; therefore, percentages may not add to 100

Distribution of hospitals by presence of written policies and committees to prevent patient handling injuries

Not all hospitals with committees working to reduce patient handling injuries had written SPH policies.

- 15% (13) of hospitals had a committee working to prevent patient handling injuries, but no written SPH policy.
- 9% (8) of hospitals had no committee working to prevent patient handling injuries, but had a written SPH policy.
- 19% (16) of hospitals had neither:
  - These included 2 large hospitals, 10 medium hospitals, and 4 small hospitals.[d]
  - All, but one, were acute care hospitals.

Table 6: Distribution of hospitals by presence of written policies and committees to prevent patient handling injuries (n=85)[1]

	Written SPH Policy			
Patient handling committee	No	Yes, in development	Yes, in practice	**Total**
Yes	13	13	29	**55**
No	16	6	8	**30**
Total	**29**	**19**	**37**	**85**

[1]Excludes missing observations

[d] Hospital size is defined by the number of licensed beds. Small≤100 beds, Medium=101-300 beds, Large≥300 beds

Assessment of patient mobility

- Almost all hospitals (94%, 83) had a protocol for the assessment of patient functional mobility and transfer needs on admission for inpatients. Only 62% (49) of hospitals did the same for outpatients.
  - Non-acute care hospitals (71%, 12) were more likely to have a protocol for outpatients, compared to acute care hospitals (54%, 37) (p=0.02).
- More than two-thirds (71%, 59) of all hospitals had a protocol that requires staff to determine the appropriate equipment for an inpatient's functional mobility.
  - 97% (58) of these hospitals record this information in the patient's medical record.
- Almost half of all hospitals update a patients' mobility status on a daily basis (47%, 41).
- In 77% (67) of hospitals, both nurses and physical therapists were involved in updating the patient mobility assessment plan.

Table 7: Assessment of patient mobility

	n	%
Protocol for assessment of patient functional mobility and transfer needs on admission		
Inpatients (n=88)	83	94
Outpatients (n=79)[1]	49	62
Protocol requires staff to determine appropriate equipment for inpatient's functional mobility status (n=83)[1]		
Yes	59	71
Frequency of patient mobility status updates (n=87)[1]		
On a daily basis (only)	39	45
On a daily basis and other	2	2
Weekly (only)	4	5
Weekly and other	4	5
Other	38	44
Staff that updates patient mobility assessment plan (n=87)[1]		
Any Nurse	83	95
Nurses (only)	12	14
Nurses and Physical therapists	43	49
Nurses, Physical therapists, and other staff	24	28
Nurses and other staff	4	5
Physical therapists (only)	3	3
Other staff	1	1

[1]Excludes missing observation(s)

Assessment of events relating to patient handling

- Nearly all hospitals (98%, 85) reported always formally assessing patient handling incidents involving harm to patients. A somewhat lower number of hospitals (87%, 76) reported always formally assessing incidents involving harm to healthcare workers.

Table 8: Assessment of events relating to patient handling (n=87)[1]

	n	%
Patient handling event assessment for patients		
Always	85	98
Sometimes	2	2
Patient handling event assessment for providers		
Always	76	87
Sometimes	10	12
Rarely	1	1

[1]Excludes missing observation(s)

Injury surveillance systems

- 98% (86) of hospitals had a system for tracking patient handling injuries
  - 82% (70) of these tracking systems allow for the identification of the patient handling task associated with the injury. However, it is unknown if the system can readily generate statistics on patient handling, or if data are contained in narrative text.
- 74% (63) of hospitals used both OSHA logs and other systems for example, workers' compensation records for tracking patient handling injuries.
- 94% (81) of hospitals summarized and analyzed data to characterize the nature and cause of the injuries.
- While Occupational/Employee Health and Workers' Compensation were the departments listed most frequently as reviewing summaries of patient handling injuries, 10% (9) of hospitals reported that Occupational/Employee Health was not involved in the review process.
- Only 61% (54) of hospitals reported that the department where the injury occurred reviewed summaries of patient handling injuries.

Table 9: Injury surveillance systems

	n	%
System for tracking injuries among healthcare workers (n=88)		
Yes	86	98
Systems of Hospitals that track patient handling injuries (n=85)[1]		
OSHA logs only	5	6
OSHA logs and other system	63	74
Other systems, not OSHA logs	17	20
Department that reviews summaries of patient handling injuries to healthcare workers (n=88)[2]		
Occupational/Employee Health	79	90
Workers' compensation	57	65
Department where the injury occurred	54	61
Risk management	43	49

[1]Limited to hospitals that had systems to track injuries

[2] Respondents were asked to select all applicable responses; therefore, percentages may not add to 100

Percentage of hospital departments with patient handling equipment

- Hospitals were asked to provide information about whether they had any mechanical lifts or assistive devices in various departments. The table below presents the percentages of departments with lifts, with assistive devices, and neither. These figures provide a sense of which departments are more or less likely to have lifting equipment. The survey did not collect detailed information about the number of mechanical lifts or assistive devices in hospitals by department.
  - In acute care hospitals, Medical/Surgical departments were more likely to have patient handling equipment than other departments. A number of departments had no patient handling equipment: for example, 19% of ICUs did not have patient handling equipment.
  - In non-acute care hospitals, Medical/Surgical and Physical Therapy/Occupational Therapy/Respiratory Therapy departments were more likely to have patient handling equipment than other departments. Again, a number of departments did not have patient handling equipment.

Table 10a: Percent of hospital departments in acute care hospitals with mechanical lifts or assistive devices (n=70)[1]

	Mechanical lifts		Assistive devices		Neither	
	n	%	n	%	n	%
Medical/Surgical	63	90	62	89	3	10
Emergency Dept	41	59	57	81	12	17
Intensive care unit	23	33	57	81	13	19
Radiology	31	44	54	77	14	20
Physical Therapy/ Occupational Therapy/Respiratory Therapy	30	43	53	76	15	21
Operating room	38	54	52	74	16	23
Post-anesthesia care unit	37	53	51	73	16	23
Clinics	12	17	16	51	51	73

[1] Analysis limited to departments that are assumed to be present in all acute care hospitals

Table 10b: Percent of hospital departments in non-acute care hospitals with mechanical lifts or assistive devices (n=18)[1]

	Mechanical lifts		Assistive devices		Neither	
	n	%	n	%	n	%
Medical/Surgical	11	61	11	61	7	39
Physical Therapy/ Occupational Therapy/Respiratory Therapy	10	56	11	61	7	39
Radiology	6	33	4	22	12	66
Clinics	4	22	5	28	13	72
Dialysis	4	22	5	28	13	72

[1] Analysis limited to departments that are assumed to be present in all non-acute care hospitals

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Organizational responsibilities for patient handling equipment

- Three-quarters (66) of hospitals owned their lifting equipment, as opposed to leasing all or some of their equipment.
- Only 58% (50) of hospitals had provisions within their SPH policy for preventive maintenance.
  - Battery maintenance was reported as the most common preventive maintenance included in safe patient handling policies.
- At most hospitals, front line nursing staff was involved in the evaluation of patient lifting devices prior to purchase (84%, 74).
  - In two-thirds of all hospitals, materials management (59) and other direct patient care staff (59) were involved in the evaluation of patient lifting devices prior to purchase.

Table 11: Organizational responsibilities for patient handling equipment

	n	%
Ownership of lifting equipment (n=87)[1]		
Purchased	66	76
Purchased and leased	21	24
Safe handling policy has provisions for preventive maintenance (n=73)[1,2]		
Yes	42	50
Type of preventive maintenance (n=42)[1,2,3]		
Battery re-charging and replacement	35	83
Sling laundering and replacement	33	79
Replacement of lifts or devices	25	60
Department involved in the evaluation of patient lifting devices prior to purchase (n=88)[3]		
Front line nursing staff	74	84
Materials Management	59	67
Other direct patient care staff	59	67
Other	48	55

[1]Excludes missing observation(s)
[2]Excludes "Not applicable" responses
[3] Respondents were asked to select all applicable responses; therefore, percentages may not add to 100

Safe Patient Handling training

- 98% of all hospitals reported training direct patient care staff on mechanical lifts (85), assistive devices (85) and manual lifting (85).
- 69% (59) of hospitals reported training their employees at least annually.
- Only 35% (30) hospitals reported having training on hire and annually
  - 15% (18) of hospitals trained on hire only
  - 28% (24) of hospitals trained annually only

Table 12: Safe Patient Handling training

	n	%
Provides training to direct patient care staff on safe patient handling (n=87)[1]		
Mechanical lifts	85	98
Assistive Devices	85	98
Manual lifting	85	98
Frequency of training (n=85)[1]		
Annually only	24	28
Annually and upon hire	18	21
Annually, upon hire and other	11	13
Annually and other	6	7
Upon hire only	15	18
Other	11	13

[1]Excludes missing observation(s)

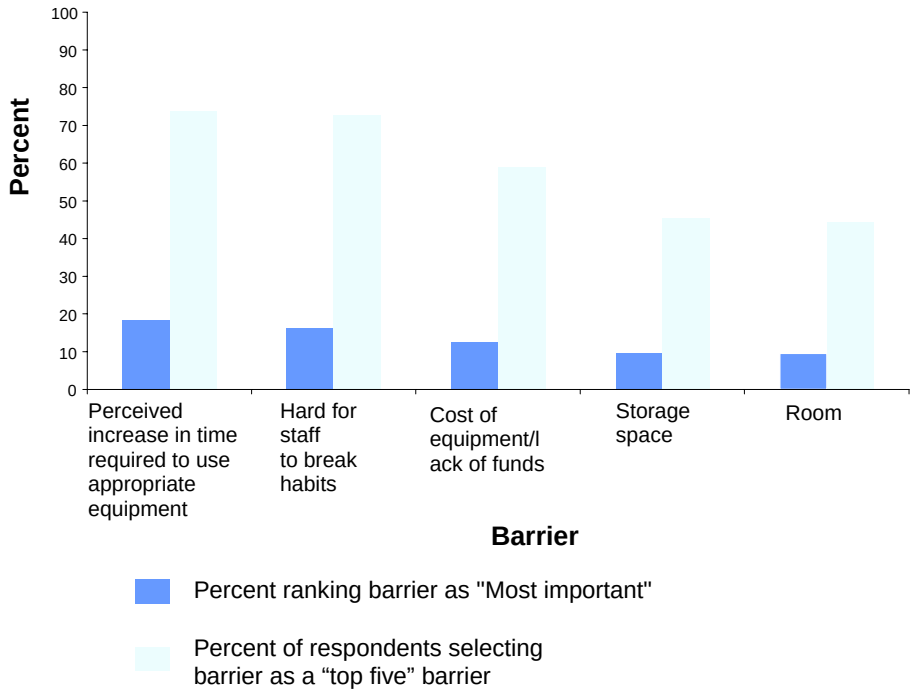
Barriers to addressing Safe Patient Handling

Survey respondents were asked to select their top five (of 17) potential barriers to addressing SPH at their facilities (Table 13). The selected perceived barriers to SPH were ranked on a scale of one to five, with one being a "most important" barrier to SPH and five being a "least important" barrier.

Table 13: Perceived barriers to addressing SPH in hospital facilities

• Equipment size/capabilities	• Room size
• Lack of enough life equipment or slings	• Not enough staff • No time for training
• Perceived increase in time required to use appropriate equipment	• Storage space • Family/patient resistance to use
• Concerns for patient safety/comfort when using handling equipment • Cost of equipment/lack of funds	• Available equipment is not an appropriate match for patient's mobility needs
• Problems with slings (get lost, size, difficult to use, damaged)	• Consistent training programs do not exist
• Difficult to update old equipment • Unfamiliar with new equipment	• Hard for staff to break habits
• Other	

Figure 2: Top five barriers to addressing SPH in MA hospitals as perceived by respondents (n=88)



- Respondents identified “perceived increase in time,” “hard for staff to break habits” and “cost of equipment” as the three most important barriers to addressing SPH in their facilities. “Storage space” and “room size” were also identified as common barriers to addressing SPH.
- “Difficult to update old equipment,” “unfamiliar with new equipment” and “not enough staff” were least frequently selected as a “top 5” barrier.

Suggestions for what MDPH can do to help Hospitals address Safe Patient Handling

Table 14: Suggestions for MDPH to promote safe patient handling in hospitals (n=81)[1,2]

	n	%
Provide information or training on:		
Assessment of patient functional mobility and transfer needs and matching appropriate solutions for safe patient handling	34	42
Information on how to develop a surveillance system to assess potential risk factors for injuries related to patient handling	33	41
Information on how to establish safe patient handling policies and procedures	30	37
Ways to improve the use of existing data to track injuries to healthcare workers associated with patient handling	29	36
Equipment options	26	32
Root cause analysis of injury incidents and near misses involving patient handling	21	26
Facilitate the exchange of successful practices in safe patient handling	34	42
Through conferences/Workshops[2,3]	17	50
Through electronic materials/website[2,3]	16	47
Through webinars[2,3]	16	47
Through notice of new developments in the field[2,3]	13	38
Other[2,3]	3	9

[1] Excludes missing response(s)
[2] Respondents were asked to select all applicable responses; therefore, percentages may not add to 100:
[3] Of those answering "Yes" to "Facilitate the exchange of successful practices in safe patient handling"

Respondents were asked to indicate what guidance they would like from MDPH. Between 30 and 40 percent of respondents reported wanting guidance in the following topic areas:

- Assessment of patient functional mobility and transfer needs and matching the appropriate solution for safe patient handling
- Information on how to develop a surveillance system to assess potential risk factors for injuries related to patient handling
- Information on how to establish safe patient handling policies and procedures
- Ways to improve the use of existing data to track injuries to healthcare workers associated with patient handling
- Equipment options
- Root cause analysis of injury incidents and near misses involving patient handling

About 40 percent of hospitals would like MDPH to facilitate the exchange of information regarding safe patient handling through conferences, electronic materials/website, webinars, notice of new developments in the fields, or other methods.

Conclusions

This survey provides previously unavailable information about the status of SPH policies and practices in Massachusetts hospitals and can serve as a baseline for monitoring progress in developing SPH programs over time. Findings indicate that while most hospitals have taken steps to improve patient handling to protect worker and patient safety, there is clearly need for improvement. The survey highlighted a number of gaps to be addressed:

- About a third of hospitals, most notably acute care hospitals, did not have written SPH policies in practice or under development
- Only 65% of hospitals had committees or groups working on SPH and 19% of hospitals (14 acute care and one non-acute care) had neither a policy nor a committee in place
- While most hospitals had systems for tracking injuries associated with patient handling, in only 61% are data reviewed by the departments in which the injuries occur.
- While most hospitals conduct patient mobility assessments for inpatients (94%), fewer do so for outpatients (62%).
- While all hospitals provide training on safe patient handling, only 34% provide training at least both on hire and annually.
- There appears to be a lack of equipment in some departments.

Findings also indicate that hospitals are in different stages of implementing comprehensive SPH programs. Variations in implementation of SPH programs were seen by hospital size and type, likely reflecting organizational differences as well as differences in patient populations. This variation suggests that there are also valuable opportunities for

hospitals to learn from each other, across service types, as they move forward. The Massachusetts Hospital Ergonomics Task Force will be considering these findings as it develops recommendations to improve patient handling and promote worker and patient safety in Massachusetts hospitals.

Notably, there was an unforeseen benefit of this survey, uncovered during MDPH follow-up with hospital staff: the survey itself prompted discussion of SPH among hospital departments and self-assessment of the hospitals' SPH policies and procedures.

Finally, survey results also suggest that hospitals are poised to advance their efforts to improve patient handling. Many hospitals expressed interest in receiving additional education and training on various aspects of developing SPH programs. MDPH looks forward to continuing to work with Massachusetts hospitals and hospital workers to facilitate the development of comprehensive safe patient handling programs.

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