Nevada Hospital Association

Safe Patient Handling and Mobility: A Toolkit for Program Development

Section 6
SPHM Education & Training

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The ***Safe Patient Handling and Mobility: A Toolkit for Program Development*** offers comprehensive guidance and resources to assist hospitals and other healthcare organizations in establishing and sustaining effective safe patient handling and mobility (SPHM) programs.

The complete toolkit can be accessed at **https://www.nvha.net/safe-patient-handling-and-mobility-toolkit/**

Reproduction and Use of Materials

Safe Patient Handling and Mobility Education and Training

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Safe Patient Handling and Mobility Education and Training

Introduction

As discussed in ***Section 4,*** an effective SPHM education and training program is an essential component of a successful SPHM program.

Caregivers must know when and how to use SPHM technology safely along with ergonomic work practices to reduce the risk of injury to themselves and their patients when performing lifting and mobilization tasks. Refer to '*Why is SPHM Education and Training so Important?'* below.

Training also supports professional growth by developing caregiver knowledge and skills and encourages them to take personal responsibility for safety in the workplace (ACC, 2012; Smith, 2013).

Tools that Support Content in this Section

6a. Education and training plan

6b. Training budget plan

6c. Sample SPHM competencies

However, as discussed in ***Section 1***, training alone is *not effective* in addressing risks for work-related musculoskeletal disorders (WMSDs) or workplace hazards in general. SPHM education and training programs are only effective if integrated into a comprehensive SPHM program.

Training as part of a comprehensive SPHM program helps employers meet OSHA requirements to address known hazards in the workplace (per the General Duty clause) and to meet requirements of state SPHM laws if applicable. SPHM training is a core standard in the American Nurses Association (ANA) *Safe Patient Handling and Mobility: Interprofessional National Standards* i.e., Standard 5 which states that 'A system for education, training, and maintaining competence is established' (ANA, 2021).

However, training programs that are poorly designed and delivered and fail to facilitate transfer of knowledge and skills to the workplace, can lead to loss of financial and human resource investment, user error, loss of efficiency and harm to caregivers and their patients (Casey et al., 2021).

This Section outlines an approach to designing, delivering, and evaluating effective SPHM education and training programs, based on published research, established best practices, and this author's experience in providing ergonomics and SPHM raining to both health care and non-health care workers over the past 30 years.

Detailed discussion about effective education and training of adults is beyond the scope of this toolkit so links to additional resources are provided throughout this Section.

Why is SPHM Education and Training So Important?

As reviewed in ***Section 5***, in the US, most SPHM technology is classified and regulated as either Class 1 or 2 medical devices by the Food and Drug Administration (FDA).

Caregivers are required to receive appropriate training, including demonstrating competency in the safe use of medical devices such as intravenous pumps, before using them to ensure patient safety.

Why is SPHM Education and Training So Important?

SPHM education and training should be viewed and supported with equal importance to reduce the risk of harm to patients when being lifted and mobilized with SPHM technology.

A review of adverse events from 2004–2015 reported to the FDA and documented in the Manufacturer and User Facility Device Experience Database (MAUDE), indicated that insufficient *training and competency* in use of patient lift technology appeared to be a leading cause of adverse events (AASPHM, 2016).

Themes related to inadequate training included the following:

- Lack of sling inspection prior to use
- Incorrect sling size used
- Incorrect application of slings on patients and consideration of patients' specific clinical needs
- Not adjusting slings for stability prior to transfer
- Choice of sling that was incompatible with a lift hanger bar
- Incorrect attachment of slings to lift hanger bars
- Lack of patient assessment and resulting incorrect choice of equipment for the patient handling task
- Floor based lifts tipping over
- Users not knowing how to operate the emergency stop or lower controls on lifts
- Using lift equipment that is broken

A review of medical device related adverse reports from Canada and the United Kingdom, found similar themes related to lack of or poor quality of training (AASPHM 2016, Perez et al., 2012).

*Refer to **Section 5** for more information about patient lifts and slings compatibility and safety.*

Elements of Effective SPHM Education and Training Programs – The Evidence Base

Evidence-based recommendations about what should be included in SPHM education and training programs, how and when to deliver the content, and the effectiveness of these programs varies. This is because SPHM programs must be customized based on a healthcare organization's patient population, handling and mobility tasks performed, SPHM technology used, the physical work environment, budget, and available training resources.

Thus, determining the design of delivery methods for training programs to support effective SPHM programs can be complex. There is not a universal approach to SPHM training or standardized method for teaching SPHM and ensuring caregiver competency in SPHM technology and practices (Perez et al., 2012; Thomas & Thomas, 2014).

As discussed in ***Section 1***, over 30 years of research and reviews of training interventions to reduce the risk of WMSDs have concluded that:

1. Body mechanics training by itself does not prevent or reduce back pain and other WMSDs associated with manual patient handling (Martimo, et al., 2008; Matz et al., 2019; Warming et al., 2008).

   Evidence-based body mechanics training is important in an SPHM program, but only in the context of teaching caregivers to use SPHM technology using neutral postures and minimizing loads on their musculoskeletal system. For example, raising the bed to a safe work height, and not reaching past mid-line of the patient or bed when placing a lift sling on a patient to minimize excessive bending and reaching. *Refer to* ***Section 5*** *for more information on ergonomics best work practices.*

2. Training on SPHM principles and how to use SPHM technology is not effective in reducing injuries unless as part of a multifaceted SPHM program (Alamgir, H., et al., 2011; Hignett and Crumpton 2007; Kanaskie & Synder, 2018; Krill, et al., 2012; Martimo et al., 2008; Richardson et al., 2018; Stevens et al, 2013; Warming et al, 2008).

   SPHM training alone does not guarantee that caregivers will *use* SPHM technology and ergonomics work practices i.e., successful transfer to practice (Hignett & Crumpton, 2007; Clarke 2013).

   To be effective SPHM training should take place within an SPHM program that is supported by:

   - Leadership including unit/department managers i.e., leaders foster a culture of safety for caregivers and patients that creates a safe environment that enables learning with a non-punitive approach
   - Peers including other health care providers such as physical therapists and physicians
   - Engagement of caregivers as part of the effort to prepare them for the change in practice required
   - Well-designed policies and procedures
   - Ongoing budget allocations for the purchase of equipment and training together with easy accessibility to appropriate SPHM technology

- Worksite coaching and mentoring support from SPHM champions or peer leaders to facilitate the transfer of training from classroom to the workplace

*Refer to **Section 1** more information about the Element of Successful SPHM programs.*

A limited number of studies have evaluated specific SPHM training methods and their outcomes. Some of these studies have included detailed descriptions of the intervention's key features such as details of the training provided e.g., duration of training, hands-on training involving trainee practice etc (Thomas & Thomas, 2014).

A three-year longitudinal study identified three aspects of training that were *significantly* related to decreased incidence of WMSDs. These aspects are competency assessment, peer leader training, and incorporation of SPHM into new employee orientation (Powell-Cope et al., 2014).

Wiggerman et al., found that 'annual training, particularly hands on training, increased the likelihood of reporting SPHM equipment use' (Wiggerman et al., 2024).

Training caregivers in the use of SPHM technology *only* during SPHM program implementation or new hire orientation, does not ensure that SPHM technology will always be used correctly over time.

Evidence suggests that periodic SPHM training together with ongoing reinforcement and support at the workplace such as the use of unit-based champions or peer leaders, is necessary for skills acquired during SPHM training to be retained and for the use of SPHM technology to become habitual and a standard practice in patient care (Nelson & Baptiste, 2006; Daily, 2014; Stevens et al., 2013; Lee et al., 2018; Thomas & Thomas, 2014; Theis & Finkelstein, 2014).

Interprofessional peer-led training can enhance knowledge, skills, teamwork, communication, and collaboration among disciplines, which is crucial for improving patient outcomes (ASPHP, 2023).

This approach to training can promote collaborative behaviors between professionals such as nursing and therapists that assist patients to achieve mobilization goals using SPHM while reducing injury risk to caregivers (Hernandez et al., 2021; Mink et al., 2021; Oosterom et al., 2019).

Theis and Finkelstein estimated a 'cost benefit of *$3.71 for every dollar* invested in retraining when estimating the impact of ongoing SPHM training in maintaining a reduction in staff injuries' (Theis and Finkelstein, 2014).

Periodic retraining or refresher training is also necessary so that caregivers can stay up to date with changes in SPHM best practices and within the SPHM program as it matures to meet changing health care delivery needs e.g., a changing patient population and/or services provided.

Defining Education and Training

The terms *'education and training'* are often used interchangeably, but there are differences between the two.

Education is defined as "the knowledge and development resulting from the process of being educated" (Merriam-Webster, ND).

Training is the process of learning the skills that you need for a particular job or activity (Cambridge Dictionary, ND).

In the context of this Toolkit, SPHM education and training applies to all activities that provide the knowledge and skills that are needed by stakeholders who are involved with or impacted by the SPHM program (as defined when developing your *Communications Plan* ***Tool 4d*** and *Education Plan* ***Tool 6a***).

SPHM education and training should be stratified to meet the varied needs of each stakeholder group. 'One size doesn't fit all.'

SPHM education and training requires stakeholders to understand:

- Why is a SPHM program needed
- SPHM program and policy information relevant to their work environment and practice (i.e., knowledge)
- The specific skills needed to perform job tasks related to their role in the SPHM program e.g.,
    - Caregivers who will use SPHM technology need to know how to assess a patient's lifting and mobilization needs and to safely operate technology such as powered lifts.
    - EVS staff/housekeepers must know how to clean SPHM technology.
    - Facilities maintenance staff should know how to maintain and repair SPHM technology.

A SPHM education and training program should provide knowledge and skills that enable critical thinking that is essential for problem-based learning and competency.

If designed and implemented well, the SPHM education and training program should enable caregivers to achieve a desired level of competence when using SPHM technology and protocols etc.

Achieving and assessing competency in SPHM is discussed later in this Section.

Elements of Effective SPHM Education and Training Programs – A Summary

The ANA American Nurses Association (ANA) *Safe Patient Handling and Mobility: Interprofessional National Standards* Standard 5. 'Establish a System for Education, Training, and Maintaining Competence' outlines the core elements of an effective SPHM education and training program.

Note: The Safe Patient Handling and Mobility Education and Training program will be referred to as 'SPHM training' for the remainder of this section.

The following elements of an effective SPHM training program are adapted from the ANA SPHM standards, other published SPHM program guidelines, and literature (ACC, 2012; Clarke 2013; Daily 2014; Skoglind-Öhman 2011; Smith et al., 2023).

They provide the framework for SPHM education and training programs, aiming to facilitate the contents of a well-designed and delivered program to ensure effective transfer of training to practice settings.

SPHM training is:

1. Provided to all stakeholders who will be impacted by the SPHM program e.g., *(Refer to **Tool 6a**)*
    - Senior management/leaders
    - Unit/department directors and managers/supervisors
    - SPHM project coordinator
    - SPHM committee (other worker and patient safety committees as applicable)
    - SPHM instructors/trainers
    - All employees who perform patient handling tasks and will use SPHM technology and processes
    - SPHM unit champions or peer coaches
    - Lift teams if applicable
    - Physicians/hospitalists/nurse practitioners/physician assistants etc.
    - Employees in other professional services e.g., respiratory therapy, wound and ostomy, infection control, patient care coordinators, risk management, employee health, human resources etc.
    - Ancillary support workers such as, linen services, environmental services, facilities maintenance
    - Purchasing groups
    - Design and construction/architects/interior designers
    - Community health providers such as emergency medical technicians and paramedics; case managers/social workers, and community providers etc., who are involved in patient admission and discharge/placement in the community
    - Vendor partners
    - Students and schools of education
    - Patients and their families

2. Customized to the care setting (patient population, care tasks, physical setting, etc) and role of a stakeholder within the SPHM program e.g., nurses and nursing aides, rehab professionals, support service workers etc.
3. Based on injury risk/needs assessment and the specific SPHM technology that will be available to caregivers in their specific work area.
4. Designed and delivered to be person-centered, both for the patient being moved and for each trainee.
5. Designed and delivered to meet the needs of adult learners across diverse cultural, linguistic, clinical, and non-clinical backgrounds, and considering their experience levels with SPHM technology and practices (from novice to expert). *Refer to Appendices A-D.*
6. Developed with clear, measurable goals that address the needs of each stakeholder group. *Refer to 'Developing an SPHM Training Program' on* ***page 6-8.***
7. Interactive and includes the same types of SPHM technology that caregivers will use when providing patient care. Simulation or point-of-care training is preferred.
8. Designed and delivered so that caregivers will *demonstrate* competence in problem solving skills to determine the most appropriate SPHM techniques to use and safe use of SPHM technology and best work practices.
9. Provided:
    - At orientation upon hire or when transferring to a new unit or department or job task (if SPHM technology and skills needed are different to those learned on a prior unit/department)
    - Annually
    - When new competencies/work practices or technology solutions are introduced
    - As requested by a caregiver(s)
    - As a non-punitive corrective action following patient handling-related near miss occurrences, and incidents that occur with or without injury to a caregiver
10. Conducted during scheduled work hours (all shifts) and with sufficient staffing coverage to facilitate caregiver participation in training.
11. Conducted *immediately* prior to having access to SPHM technology so that loss of confidence and competency by new users of SPHM technology is minimized.
12. Supported by worksite coaching and access to job aids etc., which facilitate the transfer of training, including competency and efficiency in using SPHM problem-solving skills and technology.
13. Measured and monitored for effectiveness and adapted/improved as needed on an ongoing basis.
14. Customized and provided to patients and their families.

Lastly, if perceived as enjoyable, caregivers should view SPHM training as a valued part of their job role rather than a chore to merely fulfill a duty of employment.

It is the responsibility of caregivers to actively participate in SPHM training to maintain competence and to serve as a role model for safe behavior.

Developing an SPHM Training Program

Introduction

As with any comprehensive patient or employee safety program, planning and maintaining an SPHM training program can be complex and time consuming and require ongoing commitment by leadership and all stakeholders at all levels of the organization (Lee, 2018; Monaghan, 2019).

Using a team approach to develop the SPHM training program will facilitate the identification, development, implementation, and evaluation of training objectives and content. This team should include the SPHM program coordinator/manager and the SPHM committee, senior leaders and the managers, and unit champions or peer leaders of units/departments where SPHM is to be implemented. Additionally, partnering with your clinical education department and your SPHM technology vendors early in the training development process can help the SPHM coordinator and committee to facilitate program development and implementation.

Working with a clinical educator who is experienced at developing and delivering training at your facility will help determine a program that is compatible with the organization's training processes and budgetary practices. Request assistance from Information Technology (IT) for computer-based SPHM education, as well as for online training registration, attendance tracking, and report development.

A draft *SPHM Education and Training plan* ***(Tool 6a)*** was completed during development of the SPHM program plan ***(Refer to Section 4)*.** The SPHM training plan cannot be finalized until SPHM technology is selected, at which point specific caregiver competencies and procedures can be determined.

Section 10 *provides more SPHM training resources, in addition to the tools and information provided in this Section.*

Steps to Developing a SPHM Training Program

Addressing SPHM training needs within an SPHM program should be an ongoing improvement process.

Figure 6.1 shows the cycle of steps for developing, implementing, and evaluating an SPHM training program. The dotted lines represent alternative sequences after evaluating the initial SPHM training. It may not always be necessary to seek leadership approval or conduct a needs assessment when updating the training plan.

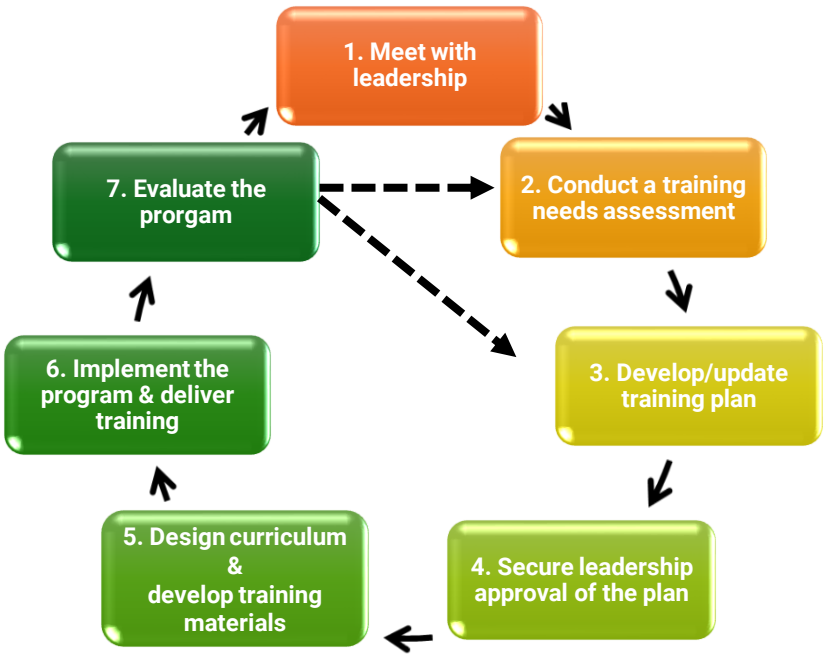


Figure 6.1 *SPHM Education & Training Development Cycle.*

Summary of the Steps and Key Questions to Consider when Developing a SPHM Training Program

Each of the following steps is discussed in the remainder of this Section.

1. **Meet with leadership to secure initial commitment for the training program**
2. **Conduct an SPHM training program needs assessment**
   - Who needs to be trained?
   - What are the overall SPHM training objectives and specific competencies needed by each stakeholder group and how they will be measured?
3. **Develop the SPHM training plan**
   - How will SPHM training be delivered?
   - Who will conduct the SPHM training?
   - How long should a SPHM training class be?
   - When and how often is SPHM training needed?
   - Where should SPHM training be conducted?
4. **Secure leadership approval of the SPHM training plan**
5. **Design the SPHM training curriculum and materials**
6. **Implement the SPHM Training Plan**
   - Do you need to pilot the SPHM training?
   - How will SPHM training be scheduled and communicated to stakeholders?
   - What documentation and recordkeeping should be completed?
7. **Evaluate the SPHM Training program**

1. Meet with Leadership

Discuss potential SPHM training needs with leadership and secure initial commitment for the training program *before* assessing SPHM training needs and developing a plan and budget.

You may have already discussed potential training needs when presenting the draft SPHM program plan to leadership ***(Section 4)*** and have some idea of any budgetary and resource limitations that exist.

Leadership must understand how initial and *ongoing* investment in SPHM education and training is critical to success of the program and plays a role in promoting a culture of safety.(Enos et al., 2016; Gallagher et al., 2018).

Discuss and obtain approval for the process that will be used to develop the SPHM training plan and budget. The plan, resource and budgetary needs will be presented to leadership for approval *prior* to detailed development and delivery of training curriculum.

It is important to understand leadership's expectations and budgetary constraints, including limits on in-person training duration, which affect SPHM education and training delivery.

Understand the expected cost-justification level when requesting budget and resources for the SPHM training program. Determine if a detailed line-item cost estimate is necessary or if a broader estimate for a specific number of classes is acceptable (Enos et al., 2016; Smith, 2013).

SPHM training programs often require cost-justification as part of the overall SPHM program budget plan at the start of the program and subsequently on an annual basis.

Tool 6b provides an example of budgetary costs and resources required to implement and evaluate the SPHM training program.

2. Conduct a Training Program Needs Assessment

Developing and cost-justifying an effective SPHM training program requires clearly defining the gaps between current and desired performance, skills, and knowledge of the stakeholders within the SPHM program. ***Tool 6a*** offers a sample SPHM Education and Training Plan can be used as template when developing your plan. It provides a list of SPHM stakeholders with examples of typical SPHM training content required for each stakeholder group.

Who needs to be trained?

Use your SPHM Communications plan ***(Refer to Section 4***) and ***Tool 6a*** to assist you identify groups of stakeholders who should receive SPHM education and training.

What are the overall SPHM training objectives and specific competencies needed by each stakeholder group and how they will be measured?

Determine the scope of SPHM training needed for each stakeholder group identified. A summary of training needs for each stakeholder group is listed in ***Table 6.1***. ***(Refer to Tool 6a for details)***

Defining training objectives and competencies for stakeholders who will *not* use SPHM technology for patient handling require less detailed assessment than those for caregivers who do.

Information gathered from hazard identification activities, policy development, and vendor requirements for SPHM technology maintenance, and foundational information about SPHM, can be used to create training content for stakeholders who are not directly involved in using SPHM technology.

Summary of SPHM Training Needs by Stakeholder Group

- **Senior management/leaders** play a critical role in supporting a culture of SPHM and providing ongoing resources to support the SPHM program. They need to understand the cost-benefits of the program as related to employee and patient safety and how the program contributes to the organization's mission, patient safety, and business goals.
- **Nurse managers and other unit/department managers and supervisors** play a critical role in supporting a culture of SPHM within their unit and understand how an organization's care delivery goals need to be met. Managers need to understand the significant role they play in program success and how SPHM can positively impact them, their staff, and patients, together with knowledge of the SPHM technology on their unit, and SPHM policy and relevant protocols.
- **Caregivers involved in lifting and mobilizing patients** such as nurses, nursing aides, physical and occupational therapists, radiology technicians, lift teams, must understand and be able to apply the fundamental principles of SPHM. This includes the safe use of the available SPHM technology and best work practices that are customized to the patient handling tasks they perform.
- **SPHM program coordinators, instructors, peer leaders, champions, and clinical experts** require not only basic SPHM training for caregivers, but also instruction in effective adult teaching methods, staff behavior change strategies, and updates on patient handling techniques and technology to effectively guide caregivers.
- **Medical staff** should be trained so they understand how SPHM can be used to facilitate improved patient care and outcomes such as, the use of SPHM technology to promote safe, early mobility, or for safe proning of ventilated patients. They may also lead efforts to mobilize a patient, so they must know how to protect themselves and others from harm
- **Emergency medical technicians and paramedics** must know SPHM technology and protocols for patient transfers to and from a health care facility.
- **Employees who assist with admissions** and finding beds for patients within a hospital will need to know where to best place patients who need SPHM assistance e.g., non-mobile patients of size are placed in a room with a ceiling lift that accommodates the patient's weight and is located on a unit where staff are trained to care for this patient population.
- **Employees who assist discharge/placement** of patients in the community may need to explain and reassure patients and their families about the benefits of SPHM and how to facilitate use of SPHM technology in community settings.
- **Other professional services and support employees** need to understand how SPHM program activities are related to their work and their role within the SPHM program e.g., environmental services/housekeeping, linen services/logistics, clinical technology, and facilities maintenance.
- **Patients and their families** receive education about why and what SPHM technology and protocols may be used to mobilize them during their stay.

Summary of SPHM Training Needs by Stakeholder Group
• **Students and schools of education** need to know about SPHM technology and protocols that students and faculty may be exposed to during clinical rotations and their involvement in using them. It may be feasible to partner with a school to provide more in-depth SPHM training to students prior to their clinical rotation such as hands-on use of SPHM technology and patient mobility assessment. • **Purchasing groups and facility design and construction groups/architects** need to understand the importance of partnering with an organization's SPHM program manager or coordinator and committee when considering purchase of SPHM technology and when integrating SPHM into facility renovation and new building. • **Vendor partners** need to understand an organization's SPHM policy and procedures. (ACC, 2012; Matz, 2019; Monaghan, 2011)

Table 6.1 *Summary SPHM Training Needs by Stakeholder Group.*

Identifying competencies required by caregivers who will use SPHM technology

SPHM training needs assessment includes evaluation of patient handling tasks and identifying the necessary knowledge, skills, and abilities (KSAs) caregivers need to use SPHM technology and work practices. Refer to ***Table 6.2*** for more information about KSAs.

Determining KSAs required allows you to:

- Identify competencies that caregivers need to safely perform SPHM tasks and to develop specific, measurable actions that demonstrate the achievement of those competencies (i.e., the behavioral training objectives)
- Determine training content and delivery methods that will enable caregivers to attain the required competencies, and
- Facilitate evaluation of the transfer of training from the classroom to the work environment where patient handling tasks are being performed

For example, developing *skills-based* content requires that specific protocols be defined for each lifting and mobilization task that will be performed using SPHM technology.

These include defining:

- How SPHM technology will be used to complete patient handling and mobility tasks
- What psychomotor skills are needed to safely perform each task
- What problem-solving skills i.e., critical thinking, decision-making, communication skills, etc., are needed to safely perform each task
- Ergonomics and safety-related best practices required to reduce biomechanical risk factors and ensure caregiver and patient safety, and optimize efficiency when using SPHM technology

Defining Knowledge, Skills, and Abilities (KSAs)

Knowledge, Skills, and Abilities (KSAs), or competencies, are the attributes required to perform a job task(s) or to effectively perform duties of a specific job.

Knowledge refers to the factual and procedural information a person acquires through educational experience, which, if applied, makes adequate job performance possible.

Knowledge is the theoretical or practical understanding of a conceptual subject. It consists of concepts as well as the understanding and application of information. Knowledge is the foundation on which abilities and skills are built. It can be obtained from reading reference materials, attending a training class, or direct experience.

However, possession of knowledge does not ensure that it will be used for example:

- A nurse may understand what an SPHM mobility assessment is, when to perform an assessment, and the steps required to complete the assessment, but have no experience applying it prior to mobilizing a patient.
- A nursing aide may have knowledge of when to use and how to use powered floor lift from a training video but lack hands-on experience with it.

Skills refer to the capability to perform job tasks with a required level of proficiency and competence needed.

Skill is the result of repeatedly applying knowledge or ability, i.e., a learned behavior. Knowledge is a prerequisite to achieving a skill(s) i.e., you must have knowledge about a task before you attempt to perform it.

Most skills refer to psychomotor type activities required to meet the performance standard needed to complete a job task (s). Thus, they can be observed and measured to determine quantity (e.g., time) and quality (e.g., precision) of performance.

Skills can fall into different categories such as technical skills, interpersonal communication, organizational skills, analytical skills, and presentation skills. Skills can be further developed through training and/or hands-on experience. An example of technical and analytical skills is:

- A nurse who can determine when to use a powered floor lift with sling to transfer a dependent patient, can choose the correct sling for the patient and task and is able to use the lift to perform the transfer safely.

Ability usually refers to cognitive and/or physical capabilities necessary to perform an observable activity such as a specific job task or function. It is also defined as demonstrable capacity to apply several knowledge and skills simultaneously to complete a task or perform an observable behavior. Abilities may also relate to personal and social attributes such as talent and emotional intelligence which tend to be innate or acquired without formal instructions.

A skill is a *learned behavior* that can be taught, tested, and measured; however, abilities are a broad term for human capacity that are harder to teach, test, or measure. For example, the ability to use

Defining Knowledge, Skills, and Abilities (KSAs)
critical thinking and problem solving when assessing and determining how best to handle or mobilize a patient with a complex medical diagnosis such as safely proning a patient on extracorporeal membrane oxygenation (ECMO) using SPHM technology. (Enos et al., 2016; Goldstein, 1993; Marzano, 2010).

Table 6.2 *Defining Knowledge, Skills, and Abilities (KSAs)*

There are various methods that can be used to identify the skills-based protocols that caregivers need to safely use SPHM technology in their specific work setting.

These include:

1. Observation of patient handling tasks performed and
2. Ergonomics task analysis of patient handling tasks performed
3. Caregiver interviews and surveys (including review of any previous SPHM training evaluations/surveys)
4. How existing SPHM technology is being used
5. A review of records related to SPHM training that has already been conducted. This includes current patient handling training content, delivery and evaluation methods and related data.
6. Working with SPHM technology vendors to identify core competency-based skills needed to safely use their products in specific work settings etc.
7. Determining how SPHM technology will be used in a specific work environment during the process of evaluating and choosing SPHM technology ***(Refer to Sections 5 & 7)***.

Activities 1-4 were conducted during the worksite assessment activities to identify hazards and assess risks associated with patient handling tasks in SPHM program planning ***(Refer to Section 3)***.

If required KSAs for specific patient handling tasks are not fully defined from the above activities, further observation and assessment of patient handling tasks and caregiver interviews may be needed.

Vendors of the SPHM technology selected for the program can help determine essential skills caregivers need to safely use their products with specific patient populations and patient handling tasks.

Hierarchical Task Analysis (HTA) is a useful process that can be used to determine KSAs required to complete tasks and inform training content. HTA is a systematic approach to breaking down complex tasks into a hierarchy of subtasks, identifying the specific knowledge, skills, and abilities needed at each level.

Conducting a HTA can also help to facilitate ergonomics evaluation of patient handling tasks (if conducted) during the *risk assessment* phase of SPHM program planning ***(Refer to Section 3***). It is also a process that can be used to identify the essential physical functions which are important for effective hiring decisions and for preventing or managing occupational injuries ***(Refer to Section 7***).

Table 6.3 summarizes the use of Hierarchical Task Analysis (HTA) to determine KSAs for specific patient handling tasks.

Hierarchical Task Analysis (HTA)

Hierarchical task analysis (HTA) is a systematic method that can be used to evaluate patient mobilization tasks and identify the overall goal of each task (e.g., safely move a patient from a bed to chair); all the subtasks and their relationship to the overall goal of the task; and the conditions under which they should be carried out to achieve that goal.

The framework of Hierarchical Task Analysis

An HTA describes an activity in terms of its specific goals, subgoals, operations, and plans. HTA allows for construction of an in-depth list of goals or tasks associated with a specific process and the development of a comprehensive task description. In addition, this approach can be used to identify physical risk factors that may contribute to worker injury and cognitive requirements of a task to develop solutions to mitigate injury risk and worker error.

Besides helping develop job descriptions, safety analysis, and error prediction, HTA also supports the design of training content and job aids, assessment of workload assessment, and procedure and interface, design, and evaluation.

Steps taken to complete HTA

1. Define the task to be analyzed and the purpose of the task analysis.
2. Collect data with a focus on the relationship or interface between technology, machine (and patient in health care) and employee interaction, decision making, and task constraints.
3. Determine the overall goal of the task.
4. Determine task subgoals; these subgoals should comprise the tasks necessary to accomplish the overall goal.
5. Perform subgoal decomposition until an appropriate operation is reached, which specifies the action that needs to be done to accomplish the goal.
6. Develop plan analysis. After describing all subgoals and operations, add the plans. Plans explain how a goal should be accomplished. These may be in the format "do A, then do B, then do C" or "do A or do B and do C.”

Example of overall steps identified to complete a patient lift or mobilization task:

1. Identify the patient and the need for a specific lift or mobilization task.
2. Check activity order, weight bearing, or other clinical restrictions.
3. Assess the patient as to condition, pain level, and level of assistance needed to complete the task.
4. Get assistance from other staff as appropriate.
5. Gather SPHM technology and supplies needed.

Hierarchical Task Analysis (HTA)
6. Prepare the work environment. 7. Communicate with the patient. 8. Communicate with assisting staff. 9. Perform the lift or mobilization task. 10. Reassess the patient. 11. Return the environment to its original status. 12. Clean SPHM technology and return to storage Note that each of the above steps will have a subset of steps that are required to be completed The HTA process provides a detailed, operationally defined set of activities and when they are needed to be completed for an individual patient lifting and mobility task. The same task is assessed with various patients and caregivers to observe variation in the patient's clinical needs and staff work practices. HTA analysis of a patient handling tasks would also consider variables such as the patient's physical and cognitive status and clinical needs, the design of the physical workspace and furniture, and the task to be performed in context of the caregiver's knowledge, skills, and abilities required to perform the work (Enos et al., 2016).

Table 6.3 *Hierarchical Task Analysis (HTA).*

Developing SPHM training objectives

Once the desired SPHM-related KSAs and desired competencies are identified, measurable behavioral learning objectives can be defined i.e., the specific knowledge and behaviors that learners are supposed to demonstrate after completing SPHM training. Detailed content of the SPHM education and training program can then be determined for each stakeholder group to ensure that learning objectives and desired skills or competencies are achieved through training activities.

SPHM competency needs can change over time as caregivers move to other units or departments and/or new SPHM technology and practices are introduced, so a periodic review of SPHM-related KSAs and competencies required by the various stakeholder groups should be part of the overall periodic evaluation of the SPHM training program.

Examples of behavioral learning objectives for SPHM training and related competencies can be found in ***Tool 6c.***

Blooms taxonomy is commonly used to guide the development of learning objectives.

Bloom's Taxonomy is a hierarchical framework that classifies educational learning objectives into levels of complexity, typically organized within three domains: cognitive, affective, and psychomotor. All three domains apply to learning about SPHM and acquiring skills related to the use of SPHM technology

(Wikipedia, 2025; Mechan, 2016). ***Appendix A*** discusses the use of Bloom's taxonomy when creating learning objectives for SPHM training.

Merriam Webster defines competence as 'the quality or state of having sufficient knowledge, judgment, skill, or strength (as for a particular duty or in a particular respect)' (Merriam Webster ND).

There are several models of competence, and they generally focus around 4 areas:

1. *Unconscious competence:* Being unaware of your lack of skill and lack of ability. "You don't know what you don't know."
2. *Conscious incompetence:* Being aware of the skill but not yet proficient. "You do know that you don't know."
3. *Conscious competence:* You are able to use the skill but only with effort. "You know how to do something with conscious involvement."
4. *Unconscious competence:* Performing the skill becomes automatic. "You know how to do something through unconscious habit."

(Source: Wikipedia 2025)

SPHM training objectives should be designed to meet learners' stage of competence and consider that learners transition through these stages at different speeds.

There are several models of competence. The following are 2 of the most common used in nursing practice and both can be used to inform development of SPHM training programs and evaluating competence.

1. *The Wright Model of Competency*

   In this model, caregivers are at the center of the competency process and together with leadership should select competencies, define verification methods, and validate colleagues' competencies. To facilitate a culture of success competencies should be designed to support the organizational mission as well as providing support to the employees to ensure their success (Shanks, 2019; Durkin 2019).

   Wright identified 11 methods to verify competence emphasizing that employing two or three of these methods per competency can contribute to a culture of empowerment within an organization (Wright, 2005). The eleven verification methods are tests, return demonstrations, evidence of daily work, case studies, exemplars, peer review, self-assessment, discussion groups, presentations, mock events or surveys, and quality monitors (Gentry, 2022).

2. *Benner's Stages of Clinical Competence*

   In the acquisition and development of a skill, a nurse passes through five levels of proficiency: novice, advanced beginner, competent, proficient, and expert (Benner, 1983).

Table 6.4 describes stages of proficiency as related to the development of SPHM skills and abilities. This information is based on Benners's novice to expert model and is adapted from 'Novice to Expert' by Benner (Eustance, 2020).

Stage[1]	Definition	Potential strategies for skills and knowledge acquisition[2]
Novice	The learner has had no previous experience, making them struggle to decide which tasks are most relevant to accomplish. "Show me how" stage. Has little or no knowledge or experience of SPHM.	Teach simple, objective concepts/attributes that are easily identified. Structured training and programmatic curricula are appropriate methods.
Advanced beginner	The learner has enough real-world situations that the recurrent component is easily identified when it is related to rules and guidelines. *Related to SPHM:* Knows how to use SPHM technology but is not confident in their ability to apply use it with different patients. Not comfortable to use it on their own without supervision or working with a co-worker who if more proficient in using SPHM technology and determining patient handling needs and solutions.	Increase assistance and support in setting priorities to clients' needs by providing guidelines for recognizing patterns.
Competent	The learner has been on the job for two or three years and is able to see actions in terms of goals or plans and works in an efficient and organized manner. Will still need more practice and are at the "help me do it better" stage. *Related to SPHM:* Is comfortable using the most commonly used/available SPHM technology to perform routine patient handling and mobility tasks on a daily basis. Would need help with more complex patients or situations or new equipment.	Offer in-service education or opportunities.
Proficient	The learner performs by using pieces of evidence (i.e., maxims) that provide directions to see a situation as a whole. *Related to SPHM:* Confident in ability to understand and use SPHM technology in a variety of situations and contexts, including complex patient situations.	Use case studies to stimulate critical thinking, especially in situations with principles or rules that are contradictory. Applies skills in more complex environments and is considered experienced. "Point me in the direction of more

Stage[1]	Definition	Potential strategies for skills and knowledge acquisition[2]
	Can support SPHM training, education and mentorship of co-workers and new staff. Can be a leader for a SPHM program and assist management to facilitate program sustainability.	resources to further challenge me and improve my skills" stage.
Expert	The learner grasps the situation and understands what needs to be accomplished beyond rules, guidelines, and maxims. *Related to SPHM:* Is able to problem solve any patient handling and mobility-related challenge using a variety of SPHM technology and best work practices. Can teach SPHM principles and competencies to all other SPHM program stakeholders Can establish and manage all aspects of a SPHM program	Provide opportunities for experts to share their skills and knowledge and their analytical abilities to solve new situations. Come up with new and better ways to do the job and teach others. Experts can create the learning activities in a collaborative, problem-solving way. Types of experiences to promote learning at the stage include unique learning opportunities and interactive activities, personalized activities, and collaboration.

[1] The time required to reach each stage related to SPHM proficiency varies based on factors such as the variety of available SPHM technology and frequency of use, and the presence of work site coaching and other support at the unit or department level.

[2] Consider learning styles and generational learning styles ***(Refer to Appendix B)***

Table 6.4 *The Stages of Proficiency as Related to the Development of SPHM Skills and Abilities.*

Source: Adapted from Nursology.net. This work is licensed under a Creative Commons Attribution-Non-Commercial-Share Alike 4.0 International License. https://nursology.net/nurse-theories/from-novice-to-expert/

SPHM and Engaging Generation Z are discussed in ***Section 9 page 9-11.***

Assessing competency

Competency is assessed to determine if the trainee has learned a specific set of desired SPHM skills i.e., to identify gaps in competency and determine if further training is needed to reinforce and support the learner.

Assessing competency informs the design of SPHM education and training so that it meets the competency level of the learner. This is especially important when providing refresher SPHM training to caregivers who are experienced in using SPHM technology. Trainee engagement in learning is more challenging when training does not provide caregivers with progressive SPHM skill development or problem solving that is specific to their patient's care needs.

For example, teaching nurses how to use a ceiling lift and flat repositioning sling to boost and turn non-mobile patients would be a fundamental SPHM skill that is taught and reinforced with nurses who have never or infrequently used this type of SPHM technology. However, for nurses who perform this task as part of their daily patient care routine, it would be more appropriate for their skill level to teach them how to address more complex or challenging patient handling tasks such as turning a patient from a supine to a prone position using a ceiling lift and repositioning sling, and/or progressive ambulation of a ventilated patient using a ceiling lift or other SPHM technology etc.

Measuring competencies should occur during and at the end of a SPHM training class, and on a periodic basis at point of care to evaluate if classroom skills are applied in daily tasks.

Gaining proficiency in using SPHM technology and best practices typically requires more than a single training session, particularly for caregivers who have never used SPHM technology.

Caregivers usually need more than one training session to become proficient with SPHM technology and practices and especially if they have never used SPHM technology. Coaching and regular use of SPHM technology at the point of care help reinforce and improve these skills. Providing this type of support keeps caregivers engaged in the SPHM program, helps generate ideas to enhance SPHM practices, and identify further needs, thus the program's sustainability.

SPHM-related competencies learned should lead to a change in behavior i.e., from high-risk manual patient handling to safe patient handling, thus contributing to creating and maintaining a culture of employee and patient safety (Gallagher et al., 2018).

Competency assessment is crucial in identifying barriers to the utilization of competencies, addressing non-compliance, and enhancing the overall effectiveness of the Safe Patient Handling and Mobility (SPHM) education and training program.

Maintaining SPHM competency is discussed in *'Sustaining SPHM Training Competencies'* on ***page 6-40.***

Generally, the simplest types of competency assessment have lower levels of validity in predicting the actual use of appropriate moving and handling techniques in work settings (ACC, 2012).

The American Association for Colleges of Nursing (AACN) states that Competency-Based Education (CBE) is not:

- A checklist of tasks
- A one-and-done experience or demonstration
- Isolated in one sphere of care or context
- Demonstrated solely on an objective test

They state that one of the basic principles of CBE is that desired outcomes are 'visibly demonstrated and assessed over time by multiple methods and multiple assessors.' This is similar to the approach Wright recommends when assessing competency (AACN, 2023).

Assessing SPHM competencies over time helps identify and develop problem-solving skills applicable in real-world scenarios where various influencing factors such as patient conditions, work environment, and work design and culture, influence when and how a patient is to be moved.

Competence can be verified through various approaches, depending on the skill to be assessed ***(Refer to Table 6.5***). For example, evaluating a caregiver's ability to choose and use the correct SPHM technology for a specific patient handling task versus assessing the required skills of a SPHM peer leader/coach to be able to train other caregivers. The methods used may also depend on the resources and time available to conduct assessments.

Piloting the SPHM training program before full implementation helps ensure the competencies are appropriate and activities to measure them are effective. Piloting the SPHM training program is discussed in *'Implement of the Training Plan'* on ***page 6-36.***

The training plan should also include a process to address the consequences if learners do not achieve competency in one or more SPHM skills being taught.

Methods of Competency Assessment to Evaluated SPHM KSAs

Type of assessment	Validity	Resources needed
A checklist of tasks completed during training.	Low validity	Easy to conduct. Checklists are available that can be adapted.
Written tests covering knowledge about SPHM.	Low to moderate validity.	Relatively easy to conduct, especially if used in computer-based training with a system that can score the test and produce reports for training evaluation purposes. Evaluates knowledge not skills and abilities.
Case study approach i.e., test requiring selection of appropriate techniques based on multiple written scenarios to promote problem solving.	Low to moderate validity.	Practical if used in computer-based training with a system to capture and report data. Can be incorporated into in-person training sessions but dependent on time available and size of class.
Return demonstration of specific techniques for assessment purposes i.e., has the trainee understood what has been taught	Moderate to high validity.	Requires assessment protocol and additional time to conduct assessments with individual trainees during in-person training sessions.

Methods of Competency Assessment to Evaluated SPHM KSAs		
Type of assessment	**Validity**	**Resources needed**
and are they able to apply their knowledge in practice? Can be integrated with a case study approach.		Trainees must feel comfortable if this is conducted in a group. Could also be conducted at the worksite. Evaluates a desired set of skills.
Observation of moving and handling tasks on a unit or in the work setting.	High validity.	Considerable time and resources needed to carry out observation. Could be conducted by peer coaches/SPHM champions. Evaluates a desired set of skills and abilities.
Simulations of Real-Life Events May be targeted for a specific SPHM skill/SPHM technology e.g., fall recovery; extraction of a patient from a vehicle; or part of a larger mandatory mock-drill event such as mock codes with patient fall recovery.	High validity.	Considerable time and resources needed to carry out observation.

Table 6.5 *Methods to Verify Competence. Source: ACC, 2012 & Monaghan, 2020.*

3. Develop the SPHM Training Plan

How will training be delivered?

Online learning/computer-based training (CBT)/E-learning module

There is some evidence to support that self-paced well-designed computer-based training (CBT) learning can provide caregivers foundational knowledge about SPHM and the use of SPHM technology effectively if an interactive component is incorporated and the content reflects the caregiver's work environment and technology available. Incorporating practice exercises, video-material, repetition, and feedback appear to be associated with improved learning outcomes (ASPHP 2023; Vaona et al., 2018).

CBT can include demonstrating SPHM technology use together with procedures such as assessing a patient's mobility status and introducing information on the importance of SPHM along with SPHM program, policies, and procedures.

Using CBT *prior* to SPHM in-person hands-on skills training to introduce SPHM concepts and benefits helps prepare caregivers for the change in practice from manually moving patients to using SPHM technology.

The benefit of E-learning is that it is a less expensive way (vs. instructor-led training) to provide 'training' to large groups of HCWs and can be accessed at any time. The information provided is consistent for all learners as there is no instructor variation.

CBT training, if designed well, may also be the preferred method to deliver education about the SPHM program to stakeholder groups that do not perform patient handling tasks.

Tool 6a provides training resources that provide web-based foundational SPHM information and training that can be freely accessed.

Simulation and experiential learning

Appropriate and *safe* use of SPHM technology requires caregivers to use psychomotor and critical thinking skills. These competencies are best attained through well-designed in-person, hands-on, competency-based training as opposed to solely relying on computer-based methods.

As related to SPHM training, the American Nurses Association's (ANA) Inter-Professional Standards for Safe Patient Handling and Mobility (2021), Standard 5.1.4. states "*Provide appropriate SPHM technology for education and training. Interactive education and training will be conducted using the same types of SPHM technology used for healthcare consumer care within the organization. Simulation or point-of-care training is preferred*."

Research supports that high fidelity hands-on simulation training is an effective method to teach healthcare students and caregivers tasks that require psychomotor skills and can improve knowledge acquisition, self-efficacy, satisfaction, confidence, and critical thinking skills (ASPHP, 2023). Simulation in SPHM allows for experiential learning within a controlled and safe environment versus learning to use SPHM technology at the bedside with a patient.

Interactive hands-on competency-based training with relevant case scenarios and problem-solving, and reflective practice where trainees discuss challenges and create solutions, is associated with increased compliance with SPHM technology and practices (ACC, 2012; Monaghan, 2019; Wanless, 2017: Perez, 2016). Refer to '*Reflective Practice*' on ***page 6-24.***

Problem solving includes conducting risk assessments to determine how to safely mobilize patients according to their physical and cognitive abilities and clinical needs and developing appropriate care plans.

Role play, in which a trainee plays the role of a patient during SPHM training, allows caregivers to gain insight into the patient's experience when being mobilized with, and without equipment, and to understand the importance of providing a patient with a sense of control and dignity when being moved etc. This can also facilitate discussion and provide insight into how to use SPHM technology with patients who are cognitively impaired such as those with dementia.

Trainees should conduct a return demonstration on the use of SPHM technology while incorporating proper body mechanics and safety precautions as part of a competency assessment process.

A single hands-on simulation session may not adequately assess a caregiver's SPHM skills due to time constraints, class sizes, and varying levels of trainee experience.

This challenge can be addressed by having SPHM unit champions/coaches or other SPHM trainers to check-in regularly with caregivers at the worksite and conduct 'just-in-time' refresher training as needed to ensure skills are transferred into practice. *Refer to 'Assessing Competency' on* ***page 6-20.***

Reflective Practice

Reflective practice is commonly used in health care as a tool to help employees to reflect on their experiences and learn from them with the goal of improving the way they work or the quality of care they give to people.

This practice can be applied within SPHM training to allow caregivers to evaluate an experience or event in a structured way to recognize that learning has occurred, and to identify future development needs.

For example, when having learners discuss a patient handling related task that was performed manually such as lifting a patient from the floor following a fall, or that was performed with SPHM technology, but that did not go as planned. The trainer (or SPHM coach/champion) guides learners to:

- Describe the experience
- Describe how they feel and what they think about the experience
- Evaluate the experience, both good and bad
- Analyze to make sense of the situation
- Identify what they have learned and what they could have done differently
- Define an action plan for how they would deal with similar situations in the future, or general changes they might find appropriate.

This type of activity can be conducted within a SPHM training session, in safety huddles and when coaching individual caregivers (Monaghan, 2020).

There are several models of reflective practice. Links to information about models more commonly used in nursing are listed below.

- Reflection Toolkit – University of Edinburgh https://www.ed.ac.uk/reflection
- Reflective practice - Clinical Excellence Commission (CEC), New South Wales, Australia https://www.cec.health.nsw.gov.au/improve-quality/teamwork-culture-pcc/teamwork/reflective-practice

Virtual Reality and Augmented Reality technologies and SPHM Training

The use of virtual reality and augmented reality technologies to deliver workplace safety training is growing.

Virtual reality (VR) is a simulated experience that employs 3D near-eye displays and pose tracking to give the user an immersive feel of a virtual world (Wikipedia, 2024).

Augmented reality (AR) is an interactive experience that combines the real world and computer-generated 3D content. The content can span multiple sensory modalities, including visual, auditory, haptic, somatosensory, and olfactory (Wikipedia, 2024).

Limited research has been conducted comparing the benefits of VR safety training to that of conventional methods. However, recent findings have shown the benefits of VR safety training often outweigh those of conventional training methods (Kaplan et al., 2024).

The cost of VR simulation training for SPHM may be too high for many health care organizations and SPHM programs at the current time, however, consider working with a local college that offers computer science degree programs to see if there is interest in partnering to have students assist to develop a VR SPHM training program.

Northwell Health in New York State has developed VR SPHM training and is currently studying its effectiveness. You can view the program information at https://northwellworkforcesafety.com/virtual-reality-training/

Summary

Overall, there are a variety of teaching techniques that can be used to effectively educate and train caregivers about SPHM. SPHM training that is multi-modal in nature and designed to consider adult and generational learning styles appears to be most successful (ASPHP, 2023; Roy, et al., 2020).

A 'blended' training approach that includes e-learning, a hands-on component, and follow-up on-the-job training with their peer leaders or SPHM coaches/champions also appears to be *cost-effective* (Knibbe et al., 2012).

Who will conduct the training?

The responsibility for conducting in-person SPHM training is determined based on the resources and expertise available within a healthcare organization.

In smaller health care facilities, the SPHM program manager or coordinator may have the expertise to be the primary trainer. In larger facilities, there may be a dedicated role for SPHM trainer(s) and/or a train the trainer approach is used. This involves having an individual(s) from a unit/department trained to teach their co-workers and to provide SPHM coaching at the point of care such as SPHM unit champions/coaches. *Refer to **Tool 4g** for more information about SPHM champions or coaches.*

The use of a train-the-trainer model may also reduce training costs and expedite employee training.

If you do not have the in-house expertise to conduct SPHM training, especially when starting a program, it will be necessary to use external resources. SPHM technology vendors can usually provide some degree of SPHM training support for SPHM programs, but the quantity and quality of training is variable. *Refer to 'Considerations when Choosing External SPHM Trainers' below.*

Staff who may conduct SPHM training include nurses, physical therapists, occupational therapists, radiologists, surgical technicians, nursing aides, and lift team members (if applicable). Typically, the job designation of the trainer is dependent on the unit/department they work in e.g., radiology technicians would be trainers in Imaging departments. Ideally, trainers should also work on various shifts worked on their unit/department.

Considerations when Choosing External SPHM Trainers

If you do not have the in-house resources with expertise to conduct SPHM training and cannot use a Train the Trainer approach, then the following external resources may be able to assist you:

- The vendor (s) who are providing the SPHM technology
- Private training companies/consultants
- Your worker's compensation insurance carrier (they may also know of other resources)

When using vendors or external consultants make sure, they:

- Are provided with a thorough orientation to the SPHM program, policies, procedures, training objectives and documentation of required training content.
- Can offer classes that are customized to incorporate an organization's SPHM policy and procedures e.g., SPHM patient assessment protocols, and requirements of any SPHM state law. Additionally, class content is designed to address the patient handling tasks to be performed to meet the clinical needs of the patient population on a specific unit/department.

When evaluating the suitability of external training providers, consider the following:

- The professional qualification and experience of the trainer(s). Vendor trainers with no clinical background/professional healthcare license such as a nursing or physical therapy license, *may not* be able to teach patient mobility screening or assessment to caregivers and/or customize training to the clinical needs of a specific patient population.

  If this is the case, plan to address gaps in training content. For instance, partner a non-clinician vendor trainer with an SPHM trainer who is a clinician from the healthcare organization.
- If you must train caregivers to use SPHM technology from different manufacturers, then you may need more than one vendor trainer. Check that vendors from different manufacturers will provide training together in the same class.
- Previous relevant experience in offering SPHM training.
- The cost of training and a statement of work (SOW) clearly defines training expectations, objectives, when training is to be offered e.g., on all shifts, and for which employee groups/units/departments, etc, and the length of training to be offered. SPHM vendors typically include training programs with the cost of purchasing their technology.
- Is there adequate time allowed for 'hands-on' practice for trainees.
- If and how they evaluate the training classes. For example, how will specific competencies be evaluated e.g., return demonstration using a check list, case studies etc. Review their documentation process and evaluation tools.
- Can they provide SPHM technology for training classes (if needed).
- What ongoing support and resources are provided as part of the training package.

Considerations when Choosing External SPHM Trainers

- Contact and talk to at least two previous clients of the training providers to get feedback about the effectiveness of the training they received.
- Lastly, evaluate the cost of future SPHM training if conducted by paid consultants/vendors versus the cost of a full or part-time SPHM trainer(s) to the organization for the program.

(ACC, 2012, Monaghan, 2011).

State licensing regulations are an important factor when selecting trainers; for example, nurses may delegate duties to certified nursing aides (CNAs), who typically are not permitted to perform patient assessments. Assigning CNAs to instruct nurses on performing SPHM mobility assessment could fall outside the permissible activities defined by their licensure.

Having a *team of trainers* rather than relying on one person to conduct SPHM training helps address training coverage needed if a trainer is absent etc., avoiding the need to cancel or postpone classes which can be costly for the organization. Costs may result when class cancellations disrupt staffing schedules, especially if additional staff have been arranged to cover patient care while caregivers participate in SPHM training.

Employees may still be owed compensation if a training class is cancelled within hours of its start time, depending on applicable labor contracts.

Trainers from diverse professions can help other trainers understand how SPHM impacts practice for a variety of professionals such as therapists, nurses, and aides. This can help trainers address specific practice-related questions when teaching staff and demonstrate understanding of different practice roles.

A team of trainers can also support each other when encountering resistance from other staff and reduce the isolation they may experience (ACC, 2012).

SPHM trainers need a deeper level of knowledge and skills beyond core SPHM training. In addition to being competent to teach other caregivers how to use SPHM technology and address a variety of clinical situations, SPHM trainers need to understand how adults prefer to learn and be able facilitate learning using a variety of different approaches. Adult learning styles are discussed in *'Design the SPHM Training Curriculum and Materials' on* ***page 6-32*** and in ***Appendices B and C***. An example of the training content for an SPHM Train-the-Trainer workshop is provided below.

The resources available for training SPHM trainers will determine the size of the training team, the training workshop duration, whether experts are needed, and the training venue needed. Training session length depends on the topics to be covered and the level of detail.

Staff selected to be trainers should be supported by being given the time to be trained and to deliver training to other caregivers and other employees.

Trainers should receive periodic refresher training and additional training if new SPHM technology and/or processes are introduced. Regular communication and support of the trainers is important, so that they do not feel isolated and they can provide feedback and brainstorm ideas to improve SPHM training as the program is implemented and matures.

Example of the Training Content for an SPHM Train-the-Trainer Workshop

Educating trainers in a series of workshops may be more effective from a learning and scheduling perspective. Evidence supports that teaching models that emphasize repetition and spaced-out sessions support increase in memory recall and retention while minimizing the loss of knowledge that occurs with one-time learning (Smolen et al., 2016).

Content overall

- Theory – foundational education about SPHM (what and why), ergonomics, risk assessment and address patient handling hazards.
- The organization's SPHM program approach and associated policies and procedures, and applicable state legislation.
- The content of the SPHM program that trainers will be teaching
- Evaluating the effectiveness of training sessions.
- Equipment – competency with the selection and use of SPHM technology (including slings) for patients with a variety of medical and physical conditions and ability to provide related instruction.
- Competency with SPHM assessment and communication protocols and ergonomics best work practices.
- Practice – specific techniques and patient handling tasks, such as enabling early mobilization from bed to chair with and without SPHM technology, addressing care and sensitivity for patients of size, with cognitive impairment etc.
- Adult education theory – learning how to design and deliver education to adults.
- Teaching and presentation skills for delivering training sessions.
- How to coach staff and provide feedback and how to address patient and staff related barriers/resistance to using SPHM technology.
- Where to get assistance if they are unable to answer specific clinical-related questions during a training session e.g., mobilizing a complex patient in a specific clinical setting such as an ICU.

Additional content is added if trainers are also going to be unit SPHM champions or coaches.

Trainers should deliver training on a regular basis to ensure they stay up to date with the content and remain comfortable delivering the training. Trainers should have access to ongoing professional development and current information regarding SPHM, including attendance at relevant conferences or webinars.

There should be a plan for ongoing recruitment and replacement of trainers if they leave the position and a plan for onboarding new trainers and retaining existing trainers, so that training schedules are not disrupted.

How long should a SPHM training class be?

Determining the length of training classes/sessions and capacity for each session that will facilitate maximum learning is dependent on the:

- Type and variety of SPHM technology and patient handling competencies to be taught
- Number of trainers available, i.e., having more than one trainer allows for larger numbers of trainees to be divided into groups and rotate through training stations
- Size and design of the location available for training
- Training time and budget that leadership has approved

The ratio of trainees per trainer is also dependent on several factors such as trainer experience and skill set; the level of SPHM knowledge and skills of trainees; and training time and scheduling allowed by management.

In some countries with SPHM legislation, a recommended ratio is 1 trainer to 6 trainees (ACC, 2012). This ratio is seen as the minimum required to provide sufficient practical instruction to trainees during technique demonstrations, trainee practice, and trainer feedback (ACC, 2012).

Based on this author's personal experience, a 1-hour training session is *not enough* to teach 6–10 caregivers how to use SPHM equipment such as ceiling lifts with various slings and an air assist device, while also allowing time to demonstrate competency.

If SPHM training is to be conducted as part of a skills competency day or fair, ensure that there is sufficient time to review the required SPHM competencies for each trainee e.g., 20 minutes at a task station may only be sufficient to *demonstrate* a SPHM technique to trainees. A Skills Fair may require attendees to review several clinical skills, so ensuring effectiveness (i.e., retention of information) of SPHM training methods is important.

If trainees are to be trained in many different types of SPHM technology and slings, consider that they may become overwhelmed and confused especially if this is their first SPHM training class. If this is the case, it will be especially important to provide after-training support and coaching to ensure correct use of the technology etc.

As previously discussed, trainees could complete an online (CBT) interactive education module prior to class that includes foundational SPHM information, information about the SPHM, program policy procedures and introduction to SPHM assessment protocols and technology used at the facility. This approach can help address existing attitudes and beliefs about patient lifting and mobilization practices before hands-on training.

If designed well, CBT should engage and motivate trainees to learn how to use SPHM technology in a subsequent hands-on training class. Content in hands-on classes can then be focused on reinforcement and application of important SPHM principles and use of SPHM technology etc.

Ultimately the length of training sessions is a balance between the time needed to teach and assess competency in a training session and the training time allowed by leadership.

If training resources are limited, consider integrating additional health and safety topics such as key elements of workplace violence prevention, hand hygiene, and infection control into SPHM training.

When and how often is SPHM training required?

For each stakeholder group identify when SPHM education and training is required e.g., at program implementation, and then periodically; for new hires; when SPHM processes/procedures are changed; or new processes implemented; and when employees are transferred to a new unit that have different training requirements ***(Refer to Tool 6a).***

The ANA SPHM standards and most SPHM training related literature and SPHM state regulations recommend that SPHM training occur annually.

However, it may be valuable to review the need for annual competency based hands-on SPHM training dependent on:

- How much SPHM coaching or peer support is available for caregivers in their unit/department and how effective coaching is in promoting the appropriate use of SPHM technology. If caregivers receive daily coaching and SPHM audits show proper use of technology and adherence to protocols, refresher training may be needed less frequently, such as every two years.
- The time allowed for refresher training vs. the quality of the training. For example, if only an hour is approved for training due to budget and staffing constraints, can essential skills be reviewed and new skills be learned (if applicable) effectively in this time frame? Would it be more effective to offer SPHM refresher training for 2 hours every 2 years?

Determine if training will be mandatory for each stakeholder group identified and identify a process to address employee non-compliance with mandatory training policy.

If SPHM training is not mandatory, caregivers are more likely to share improper techniques, shortcuts, and incorrect procedures, leading to unsafe patient handling.

This can be especially challenging when newly hired caregivers who have attended SPHM training may face resistance from existing staff who may be untrained or not competent in use of SPHM technology. New hires may be less likely to 'rock the boat' and unsafe SPHM practices are perpetuated.

Quick Tip

Coding SPHM incident and injury data to reflect the patient handling task being performed at the time of an incident helps with SPHM program planning, evaluation, and informs training content *(Refer to Section 2).*

However, recording an employee's date of SPHM training (e.g., initial and refresher training) with incident data enables the evaluation of the period between SPHM training and the occurrence of patient handling-related incidents. This information can guide decisions regarding the frequency of SPHM refresher training.

For instance, if data indicates that the number or rates of patient handling incidents consistently increase 2 or more years after employees received SPHM training, you may decide to schedule to schedule refresher training every 2 years (depending on the requirements of state SPHM regulation).

Tracking training data alongside incident data also allows you to identify if an employee received SPHM training prior to a patient handling incident or if they were supposed to attend training but did not.

Where should SPHM training be conducted?

Ideally, a dedicated training space should be provided for the SPHM program that will allow simulation of all patient handling tasks with the full range of SPHM technology and slings being used at your organization and reflect the typical practice setting. If the specific types of equipment needed are not available, contact your SPHM technology suppliers to see if they will loan or rent equipment for training.

It may be necessary to conduct some training in a patient care area where specialized medical equipment is used with SPHM technology to facilitate transfer of training e.g., certain diagnostic imaging and perioperative areas with specialized procedure tables.

If a dedicated training room is not available, an alternative is to conduct training in an empty patient room. This requires coordination with bed-control/scheduling and the ability to notify staff of the training location at short notice.

If your facility is a teaching hospital, it may be feasible to partner with a health care student training facility to use their training space e.g., schools of nursing.

Another approach is to create a temporary 'mock-up' of a patient room or work location within a designated training space by putting tape on the floor to indicate room dimensions and then placing furniture and SPHM technology within that space.

If a training location is not easily accessed by trainees, provide clear instructions, maps and the contact information of the trainer(s) or person who can help them if they have challenges getting to the location etc. Highlight the need to plan for travel time and to arrive on time for class.

4. Secure Leadership Approval of the SPHM Training Plan

Before detailed development and delivery of SPHM training curriculum, you need to secure the training budget, resources and scheduling preferences required to meet your SPHM program training needs.

Prior to presenting the proposed SPHM training plan to leadership for approval, make sure to identify potential barriers to implementing the plan and approaches to address them. For example, the cost of using external trainers, and/or the time for employees to attend training, including cost to provide extra staffing coverage.

You should have identified some of these barriers during the Gap Analysis assessment and when developing the SPHM program plan ***(Refer to Sections 3 and 4).***

Determine the required budget to implement and sustain the SPHM training program (per earlier guidance from leadership). ***Tool 6b*** provides a sample budget.

When meeting with leadership to present the plan and budgetary needs, make sure the following plan elements are discussed:

- Background – introduction to SPHM training and why it is needed including evidence based, training requirements per state SPHM law, and consequences if training is not conducted or not conducted well etc.
- Overall goals and expected outcomes of the training program
- If SPHM training is to be mandatory for each stakeholder group
- How the SPHM is to be stratified by stakeholder group

- Overview of content and rationale for why and how training is to be delivered e.g., E-learning and in-person competency-based training, and how competencies and objectives will be measured
- Length of training time needed with rationale
- How many staff are to be trained
- Who will conduct the training; training for trainers; proposed use of external trainers and related costs
- Venue for training and equipment needs
- Plans for piloting in-person training
- Proposed training schedule i.e., when should training be delivered to each stakeholder group
- Ongoing training needs to support the SPHM program
- Proposed budget for the initial SPHM training and ongoing training needs

Identify internal resources that will help with implementation of the plan such as, using clinical educators who could be trained to provide SPHM training to caregivers; existing online training registration and tracking systems; existing computer-based safety training systems; the ability to offer continuing education units (CEUs) for nursing staff etc. Implementing the plan is discussed on ***page 6-36.***

Information gathered in your education and training plan *(Tool 6a)* can help guide content for the meeting.

5. Design the SPHM Training Curriculum and Materials

Once management has approved the SPHM training plan and budget, the detailed training curriculum and training materials can be developed, and the training delivered and evaluated.

As previously discussed, SPHM training must be customized to suit the needs of a variety of stakeholders and reflect the SPHM activities performed in their unit/department.

A structured lesson plan should be created for each type of SPHM training to be conducted e.g., for units/departments implementing a new SPHM program; new hire and refresher courses, unit-based SPHM champions; and specific stakeholder groups like physical therapists or transporters.

Lessons plans should include:

- Details of foundational SPHM content and relevant program, policies, and procedural information
- Content such as specific patient handling tasks and the SPHM technology to be used to complete these tasks
- The time allocated for each session and topic within a session
- The method to be used to deliver content e.g., computer-based learning, in-person demonstration and supervised practice
- The method(s) to evaluate trainee competence such as return demonstration
- Resources required for all training activities e.g., SPHM technology, beds, chairs, internet access, instructional materials etc.

Table 6.6 provides an example of core components of SPHM education and training for caregivers who will use SPHM technology.

Example of Core Components of SPHM Training for Caregivers who will use SPHM Technology

Theory (knowledge base)

Foundational information about SPHM for example:

- The scope of manual handling injuries
- Injury data nationally, locally (state injury data if available) and within the organization including, injury rates by units/departments, types of injuries and cause by patient handling task
- The cost of manual handling injuries to caregivers, patients, and health care organizations
- Applicable state laws and standards e.g., the ANA interprofessional SPHM standards
- Why manual patient handling is dangerous for caregivers and patients including biomechanics of the spine, development of WMSDs and hazard identification
- The SPHM program efforts at your organization including the mission statement and goals; overall process to achieve goals; relevant policies of the organization; roles and responsibilities of stakeholders; and how to get assistance; reporting patient handling-related safety issues; and how to suggest process improvements.
- Injury and incident reporting process and important of early reporting of WMSDs
- Definition of SPHM and the benefits of SPHM to caregiver, patients and health care organizations including how SPHM facilitates patient care including safe early mobilization and falls and violence prevention etc. Include examples of SPHM technology and techniques used at your organization.
- Core ergonomics principles as applied to use of SPHM technology and work practices to reduce awkward postures and forceful exertion.
- Risk assessment of patient handling tasks and core concepts of problem-solving including the use of patient mobility assessment and communication protocols to mitigate risk to caregivers and patients. Note: Applying and practicing SPHM assessment and mobility checks should be included in hands-on competency training.
- Change management. Information about what changes will be required and why e.g., expectations about the use of mobility assessment protocols and SPHM technology.

Encourage open dialogue and address employee concerns – this should continue in the skills training session.

Practical (Psychomotor) skills include:

- Completing SPHM patient mobility assessments

Example of Core Components of SPHM Training for Caregivers who will use SPHM Technology

• Applying ergonomics principles during SPHM tasks e.g., raising a bed/stretcher to minimize back flexion and not reaching past midline of a patient/surface.
• Applicable infection control protocols for cleaning technology after use; laundry protocols; disposal of single patient use items etc.
• Safety and functional operation of SPHM technology including application and use of patient lift slings, storage and servicing/problem solving if technology is not functioning and/or missing.
• Patient handling and mobility tasks as applicable to trainee needs and as determined by patient physical, cognitive abilities and clinical needs and SPHM technology available e.g.,
  ○ Repositioning in bed such as turning, boosting, holding in a side lying position, and proning (if applicable)
  ○ Lateral supine transfers e.g., bed to stretcher
  ○ Seated transfers e.g., to/from bed to chair for non-weight bearing patients
  ○ Sit to stand transfers to/from 2 surfaces for patients who can partially bear weight
  ○ Ambulation
  ○ Limb holding e.g., during wound care
  ○ Toileting and bathing
  ○ Fall recovery
  ○ Emergency situations e.g., seizure/ cardiac arrest
• SPHM for specific patient populations e.g., spinal trauma patients; patients of size; patients with cognitive impairment such as dementia, pediatric patients etc.
• Problem-solving activities, such as case studies based on scenarios relevant to patient populations that the trainees care for.
• Addressing patient, family, and caregiver refusal to use SPHM technology

Table 6.6 *Example of Core Components of SPHM Training for Caregivers.*

When designing SPHM training to facilitate effective learning it is essential to understand the learning abilities of the trainees, their preferred learning style, and generational differences in the ways that adults learn. Educational, language, culture, terminology, literacy levels of the target audience must also be considered in the delivery of the training and in handout and other instructional materials.

Appendices B-D *provides more information about learning style and differences in how generations learn; the principles of adult learning theory; and characteristics of sound training programs .*

Additional resources about adult learning theory and successful SPHM training programs are listed in ***Section 10*.**

Where feasible, SPHM training should be customized to the trainee's clinical specialty and work setting. For example, teaching critical care nurses the basic use of a ceiling lift with a repositioning sling *without* providing specific skills and scenarios that apply to their typical patients such as those on ventilators or attached to multiple devices, is unlikely to facilitate use (or safe use) of the lift equipment.

Making SPHM training meaningful

When designing SPHM training curriculum, it is essential to understand what is important to each stakeholder group so that you can successfully engage them in training activities and facilitate learning.

For many caregivers, the primary concern will be how can SPHM improve patient care and make their jobs easier or 'what's in it for me and my patient'? Ensuring this need is answered is important to reduce resistance to change.

Anecdotally, this author has observed caregivers are more motivated to use SPHM technology and ergonomic work practices when they:

- Directly observe improvement in patient outcomes such as achieving patient mobilization goals in a shift.
- Can complete required nursing care tasks that might have otherwise been missed within a shift, especially with patients who have complex medical needs and patients of size and
- Can perform patient handling and care tasks with less staff e.g., in some cases be able to reposition a patient in bed on their own using overhead lift technology. This is especially important when staffing is limited but the use of SPHM technology allows a nurse to still be able to complete patient care tasks independently.
- Feel less fatigued at the end of a shift.

The benefits of SPHM for patients and caregivers are described in ***Section 1***.

Having trainees role play as a patient who is lifted, repositioned and mobilized using SPHM technology during a class, can help them relate to a patient's perspective including their fears, potential loss of dignity and loss of control during patient handling tasks, and how they can address these fears when using SPHM technology.

Real-time recognition during training or coaching caregivers, along with positive feedback on task performance, greatly enhances engagement in SPHM and facilitates learning. It also boosts their satisfaction and sense of purpose in their work.

Training and coaching should never be perceived as punitive e.g., calling out mistakes in a negative way in front of a group of peers.

Appendix D summarizes the characteristics of sound training programs.

6. Implement the SPHM Training Plan

Do you need to pilot the training?

When starting a SPHM program it is a good idea to pilot initial SPHM training so that design and delivery of the content including time needed, can be evaluated and adjusted as needed.

For SPHM programs with limited training resources, it is a more manageable approach than implementing training on a large scale e.g., for many units/departments and hundreds of caregivers.

If you are piloting the SPHM program on one or more high priority units/departments before facility wide implementation, you could pilot the SPHM training with a group of caregivers from a pilot unit/department.

Conducting a training pilot allows new SPHM trainers to learn how to run training classes, trial their presentations on a real audience, receive feedback on their teaching and identify problems (ACC, 2012). An experienced trainer should be present to observe and facilitate as needed. Trainers can be evaluated by how well they engage their audience and facilitate effective hands-on practice to ensure trainees achieve the desired SPHM-related competencies.

Debriefing immediately after the training session(s) and providing feedback to trainers helps them to improve teaching styles and work on timing and collaboration as a team. Any additional SPHM training for the trainers can also be identified.

Attendee evaluation data from a pilot training program can also assist to adjust training content and determine and help justify the length of time needed for SPHM training classes. Lessons learned can then be incorporated into the SPHM training plan before fully implementing the training program in other areas.

General logistics of implementing an SPHM training plan

The following is a list of activities that should be addressed when implementing an SPHM training program.

- How will employees register for classes; how will attendance be tracked and communication with managers be managed?
- How will you communicate the SPHM program training requirements (including if training is mandatory), advertise classes to employees and how will they register to attend classes?
- Where will the training be conducted? Does the space have to be scheduled in advance for current and future classes?
- What training space and materials, including audiovisual, computer equipment if applicable, handout materials, SPHM technology and furniture needed etc., will be needed, and who will address these needs?
- Who will conduct the training?
- Who will provide the attendance certificates to trainees who complete the training?
- Where and how will training records be kept, and for how long?

- If Continuing Education hours (CEs) are offered how will trainees complete the evaluation and receive a receipt for CEs?
- What is the procedure if an employee fails to meet competency goals in training?
- What is the procedure if an employee does not attend training as scheduled?

If you developed a 'brand' for your SPHM program and communications, make sure to incorporate that into your training materials and related advertisements.

How will training be scheduled and communicated to stakeholders?

The SPHM training development team, along with unit/department managers, must decide how to facilitate caregivers and other employees' attendance at training.

Training should be offered on all shifts to facilitate attendance and staff scheduling.

For SPHM training to be effective caregivers need to be free from distractions. If they must leave their shift to attend, they may be preoccupied by what they need to do when they get back or last-minute changes to staffing and patient status, will make it difficult for them to leave their workplace (Monaghan, 2019).

Caregivers and other employees who attend training after the end of a shift may be too fatigued to learn effectively and, in some states, nurses staffing laws may not allow work over 12 hours. Offering paid training for employees to attend on their day off is an alternative model.

Labor contracts may also state when and how activities such as training must be offered.

The timing of the training is important, and units/organizations must plan for coverage of individuals participating in training and accommodate casual employees and those who work a limited set schedule (e.g., evenings only or certain days of the week). Trainers' schedules must also be considered as well as other training being delivered by the organization during the same time period.

Train caregivers on SPHM technology that will be *immediately* available for them to use after attending training. New users of SPHM technology may revert to manual handling techniques if they cannot use it soon after training, due to loss of confidence and competency.

Quick Tip

Training of temporary or contract caregivers such as nurses can be challenging. They often have many other policy and procedural training requirements to complete within a short period of time at the start of their contract. In addition, they may only be working at a facility for a few days, weeks or months.

The SPHM training development team and SPHM committee, together with management, should define the role of temporary caregivers in using SPHM technology e.g., usage is only permitted with another employee who is trained to use the SPHM technology available in their unit/department. If training is to be offered to temporary caregivers, a cost-effective way to deliver effective training should be determined.

New users of SPHM technology often take longer to handle patients than experienced users, so they may use manual handling techniques because they find it quicker due to lack of practice with SPHM technology (Mechan, 2014).

Including SPHM training for new hires during their orientation can prepare staff to effectively reduce injury risks and provide safer patient care. However, new hires often have other safety training requirements to complete during orientation, so it is essential to assess how well they will retain SPHM information and skills considering the volume of information they need to learn in a potentially short timeframe.

Therefore, providing on-unit/department SPHM support for new staff e.g., coaching by SPHM unit champions and the provision of easily accessible SPHM instructional aids will be key to facilitating caregiver competence and confidence in using SPHM technology and practices.

Work with unit/department managers and clinical educators to determine the best way to orientate and facilitate the use of SPHM technology for new staff and staff who transfer from work areas with no SPHM technology.

If a unit has a preceptor program for new hires, ensure that preceptors are up-to-date with SPHM competencies to teach correct skills and behaviors.

Newly hired staff and especially those new to health care are unlikely to speak up if they see incorrect, poor, or no SPHM techniques being used because they want to 'fit' into the team.

All the above considerations have budgetary implications that must be considered.

Scheduling SPHM training requires robust administrative support including a system for class registration and tracking attendance etc.

Ensure management communicates with staff if training is mandatory and consequences for non-attendance.

What documentation and recordkeeping should be completed?

Documenting SPHM training activities and attendance is crucial for evaluation of the SPHM program and training activities.

Specific documentation requirements may be required by state SPHM regulations, but in general the following should be kept:

- Lists of employees who have attended training, their job designation (e.g., RN, CNA etc) unit/department and shift together with type and length of SPHM training, date and time of the training, instructor/trainer name and affiliation
- List of employees who did not attend scheduled training and recorded notification to managers of 'no-shows'
- Competency check-off records including the name of the trainer or SPHM coach who conducted the evaluation
- Follow-up training activities if a trainee did not achieve competency in one or more SPHM related skills
- Training program documents, such as training schedules; topics covered in training; handout materials; certificates of completion; and information about continuing education hours offered (if applicable)
- Participant evaluations of SPHM training sessions

- SPHM training schedules

A system should exist to track when an employee's training, such as refresher courses, is due. It notifies healthcare workers and their managers and follows up on non-attendance.

Determine who will keep and have access to the records of training and audits and who will develop reports about the SPHM training metrics for the SPHM committee and leadership.

7. Evaluate the SPHM Training program

Determining the effectiveness of specific SPHM training activities and the program overall is part of an ongoing improvement process to ensure the program is effective in meeting program goals and the learning needs of the SPHM stakeholders.

The SPHM training development team together with the SPHM committee should determine SPHM training goals and metrics as part of the needs assessment. They can then work with SPHM coaches/peer leaders and trainers to collect program evaluation data.

Evaluating the training program can be achieved through:

- Having trainees complete an evaluation at the end of a training session to determine if the session met stated objectives
- Periodic audits of SPHM practices at the point of care to evaluate the extent to which training is transferred to the worksite ***(Refer to Section 8 and Tool 8c).***
- A review of trainer debriefing notes
- Questions about the effectiveness and relevance of SPHM training that are included in annual or periodic SPHM staff and manager surveys ***(Refer to Section 8 and Tool 8b).***
- Patient handling related incident and injury data and associated data from root cause analysis, after action reviews, and safety huddles ***(Refer to Section 7).***
- Reviewing competency documentation
- Tracking numbers of employees by unit and shift who attended training and non-attendance rates
- Reviewing the process to implement the training program

Refer to ***Section 8*** for more information about program evaluations measures.

Periodically review and update your SPHM education and training plan and curriculum content based on feedback from the evaluation methods above to ensure that training is delivered effectively to maximize engagement and effectiveness, and to justify ongoing training budget needs. Stay informed about best practices related to SPHM education and training.

Sustaining SPHM Training Competencies or 'Making Training Stick'

A well designed and delivered SPHM training program that includes the elements described in this Section, can help caregivers apply knowledge and skills from the classroom, enabling them to incorporate SPHM technology and best practices into their daily work routines.

However, as previously noted, it is critical that following SPHM training, coaching is offered to reinforce the skills acquired and that other instructional resources should be readily accessible to staff as needed. This approach will assist in fostering the cultural change required for SPHM to reduce caregiver and patient harms and become an accepted standard of patient care.

Examples of instructional resources include:

- An online (intranet based) SPHM toolkit that includes instructional materials for operating SPHM technology; training videos; job aids; policy and procedures etc.
- Written decision-making guides such as algorithms that define SPHM protocols for specific patient handling tasks and assist caregivers in identifying the appropriate patient handling technology to address patient needs ***(Refer to Section 5).***
- Online training videos that are easily accessible and are available 24 hours a day. For example, the use of QR codes on SPHM job aids that can be used to quickly access brief training videos (e.g., 1-2 minutes or less) via a smart phone.
- SPHM technology vendors usually offer instructional videos. You may link to these if external website access is allowed, or request vendors to provide videos for your facility's intranet.

Quick Tip

Conducting just-in-time SPHM training on a patient care unit/department

If just-in-time SPHM training is conducted on a patient care unit or department e.g. training on a new SPHM device or conducting training for a specific clinical scenario, coordinate with management and charge nurses to ensure that staff can attend training i.e. there are enough staff to cover patient care and communicate where and when the training will be conducted prior to and during the training.

If training can be and is to be conducted with a patient, then plan this activity carefully with the unit manager to ensure you follow relevant organizational policy related to patient privacy and permission

- Videos that are produced internally. This allows you to customize content to reflect a specific work setting, SPHM program technology and protocols etc.
- Pictorial job aids e.g., 1-page in length, which can be laminated (for cleaning purposes) and attached to SPHM technology with a QR link to brief training videos.

Work with your Information Technology department to determine if there are limitations to accessing videos within a unit such as at nurses' workstations e.g., use of audio controls when viewing a training video.

SPHM practices can be reinforced during safety huddles, safety rounding, and staff meetings.

Consider providing unit/department managers with a brief list of key SPHM talking points related to an SPHM topic that they can discuss during staff huddles.

Maintaining competency and safety in a unit or department where SPHM technology is used occasionally

For example. A powered floor lift is used every few weeks in an outpatient clinic setting.

Some clinic staff may have previous experience in using a similar powered-floor lift on a frequent basis, so are confident about using it occasionally after attending SPHM training. Some staff may attend training and have never or rarely used a floor lift.

However, due to the variation in the design and application of slings and the operation of floor lifts ***(Refer to Section 5)***, ensuring staff competency when a lift is used infrequently is more challenging.

Potential Solutions that assist caregivers to maintain competency related to use of SPHM technology include:

- Provide job training/picture aid on the equipment together with a QR code link to a brief training video.
- Have staff conduct brief practice sessions using SPHM technology available such as a floor lift and sling every week or so, e.g. practice for 10-15 mins during a scheduled staff meeting.
- Review use of the SPHM technology available at huddles at the start of a shift.
- Designate a specific group of users of SPHM technology for the clinic/work area e.g., 2-3 staff per shift who are the 'go-to' users of the floor lift and ensure they practice applying slings and performing transfers regularly. This approach can be challenging if there is frequent staff turnover.

In a patient clinic setting, understanding a patient's SPHM needs, such as the method of transfer from wheelchair to exam table and the required sling style and size if a lift is used *prior* to arrival, enables staff to plan for the transfer and arrange assistance. For example, scheduling help with the transfer from the SPHM program clinical expert or staff from another clinic who are more experienced in using the clinic lift.

As discussed in ***Section 5***, health care providers in clinic settings must ensure that the requirements of the 2010 Americans with Disabilities Act (ADA) Standards for Accessible Design are met. This includes having accessible exam, treatment, and procedure rooms available, as well as the availability of patient lifts for wheelchair to/from exam table transfers. Thus, having a plan to ensure there are caregivers who are competent and readily available to use patient lifts is necessary to meet this ADA regulation. *For more information got to* *https://adata.org/factsheet/accessible-medical-diagnostic-equipment*.

Did You Know?

In January 2023, the US Department of Justice (DOJ) filed a proposed consent decree with a large chain of eye care providers to resolve its lawsuit alleging that the eye care practices discriminated against patients with disabilities requiring assistance transferring from wheelchairs to surgical tables which is a violation of the Americans with Disabilities Act (ADA). As a result of this action, the eye care providers must train staff on the new policy requirements and on safe transfer techniques (including the use of patient lifts) and pay $950,000 to patients and prospective patients who were harmed by its policies and a civil penalty of $50,000 (DOJ, 2023).

https://www.justice.gov/crt/case/us-v-barnet-dulaney-perkins-eye-center-pc

Section Summary

Safe Patient Handling and Mobility (SPHM) Education and Training

This Section summarizes an approach to designing, delivering, and evaluating effective SPHM education and training programs, based on published research and best practices, together with this author's experience in providing ergonomics and SPHM training to health care and non-health care workers for over 30 years.

Casey et al., states that effective safety training requires workers to be engaged emotionally, mentally, and physically. This engagement leads to new knowledge and skills, improved attitudes, and better safety behaviors. To enable engagement, trainers should apply adult learning principles, ensure training relevance, and tailor it to job and individual needs. After training, ensure concepts are embedded and aligned with existing systems and routines to promote transfer of training (Casey et al., 2021).

This section discusses how to develop an SPHM training program that is effective in providing

- Caregivers with the knowledge and skills they need to be able to know when and how to use SPHM technology and ergonomics best work practices to safely complete patient handling tasks and
- Other SPHM stakeholders will the knowledge and tools to facilitate SPHM program success.

A systematic continuous improvement model for developing an SPHM Training Program is discussed and includes the following steps:

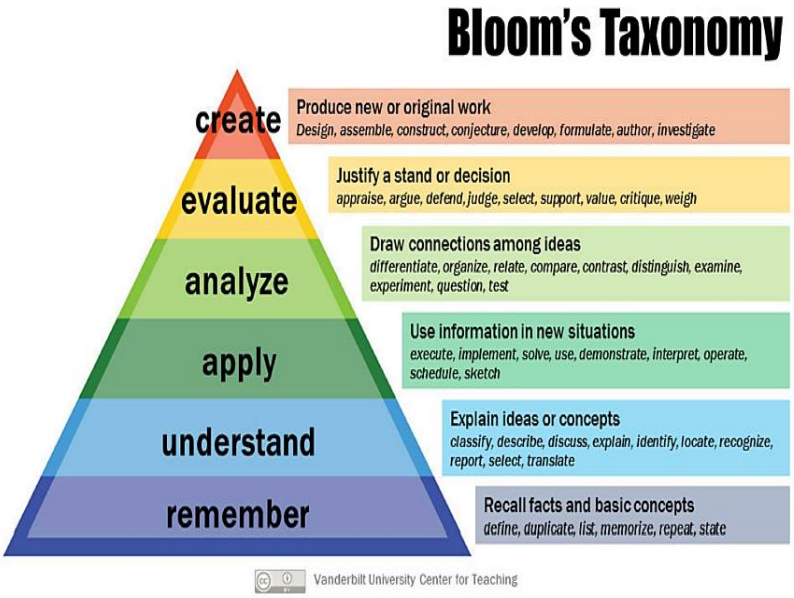
1. Meet with leadership to secure initial commitment for the training program
2. Conduct an SPHM training program needs assessment
3. Develop the SPHM training plan
4. Secure leadership approval of the SPHM training plan
5. Design the SPHM training curriculum and materials
6. Implement the SPHM Training Plan
7. Evaluate the SPHM Training program

Additional references and resources related to this Section are listed in ***Section 10.***

Appendix A

Creating Learning Objectives for SPHM Training

Bloom's taxonomy is a set of three hierarchical models used for classification of educational learning objectives into levels of complexity and specificity. The three lists cover the learning objectives in cognitive (didactic, data, information), affective (behavior, attitudes, beliefs) and psychomotor (physical skills, motor activity, patterns of activity) domains. All three domains apply to learning about SPHM and acquiring skills related to use of SPHM technology (Wikipedia, 2025; Mechan, 2016).



Cognitive: "What" is it that I need to learn? What knowledge is needed? What are the facts, and the components to be learned? What do I need to know to be successful?

Affective: "Why" do I want to, or should I learn something new. What is the value of the new knowledge or skill? What is the importance to my life?

Psychomotor: "How" do I apply the knowledge? What do I do with my hands and my body? If the task includes materials or things, how do I actually do it? (Arnold & Buchanan, 2022)

The cognitive domain list has been the primary focus of most traditional education and is frequently used to structure curriculum learning objectives, assessments and activities based on hierarchy of cognitive development that students achieve as a result of learning activities.

The affective domain relates to how meaningful education and training activities are to the learner. If training is seen as meaningful and useful to the learner, then the change that is desired because of training is more likely to occur, i.e., use of SPHM technology and practices as a standard of patient care.

All three domains must be considered when developing SPHM-related education and training objectives and competencies, however, the psychomotor domain of learning is the primary and most important as related to safe use of SPHM technology and ergonomics work practices and ultimately the success of the SPHM program. (Mechan, 2016).

Creating Learning Objectives for SPHM Training

Resources for more information about Bloom's taxonomy:

- Bloom's Taxonomy. Wikipedia. https://en.wikipedia.org/wiki/Bloom%27s_taxonomy
- Bloom's Taxonomy. Vanderbilt University. https://cft.vanderbilt.edu/wp-content/uploads/sites/59/BloomsTaxonomy-mary-forehand.pdf
- The Center for Innovative Teaching and Learning (CITL) at Northern Illinois University https://www.niu.edu/citl/resources/guides/instructional-guide/blooms-taxonomy.shtml#:~:text=Original%20and%20Revised%20Taxonomies,practices%20of%20the%2021st%20century.

There are other models for learning that propose a more holistic and non-linear or hierarchical approach to learning that are also worth considering when developing training curriculum such as Fink's taxonomy of significant learning.

- Fink's taxonomy of significant learning, what it is and how to use it in teaching. Teaching Commons, York University https://www.yorku.ca/teachingcommons/wp-content/uploads/sites/38/2023/11/Food_for_Thought-16-Finks-Taxonomy-of-Significant-Learning.pdf
- Intentional College Teaching. Fink's Taxonomy of Significant Learning https://intentionalcollegeteaching.org/finks-taxonomy-of-significant-learning/
- Fink, L. D. (2013). Creating significant learning experiences, revised and updated: An integrated approach to designing college courses. Jossey-Bass.

Appendix B

Learning Style

One commonly recognized model of learning is VAK which proposed that there are 3 general types of learners: visual learners, auditory learners, and kinesthetic learners (Wikipedia, 2025).

- Visual learners prefer to see or visualize what they are learning e.g., they absorb and retain information better when it is presented in, for example, pictures, diagrams, and charts. Video and demonstration may be more effective methods to deliver SPHM training for these learners with the key being to help create a mental visualization for the learner
- Auditory learners prefer listening to what is being presented. He or she responds best to voices, for example, in a lecture or group discussion, having instructions read to them or spoken to them as they work out a task. Hearing their own voice repeating something back to a tutor or trainer is also helpful.
- Kinesthetic learners prefer a physical experience when they can touch, feel, and experience the tasks being learned e.g., hands-on simulation training and role play.

In reality, research shows that multimodal approach that incorporates all three of these styles can be a more effective teaching strategy (Perez, 2016).

Generational Learning Style

The health care workforce consists of individuals from 4 different generations. Each generation has a preferred learning style although these are not defined by specific date but are defined more by life experiences and events that shaped behaviors and perceptions (Perez, 2016).

Generation	Learning Style & SPHM
Baby Boomers (1946-1964)	• Enjoy face-to-face and verbal instruction e.g. In-person group training with case studies; lecture, detailed handouts and taking notes • Enjoy sharing experiences within groups • Engage through case studies • Utilize traditional resources like books, manuals, and PowerPoint • Enjoy sharing experiences within groups • May make good SPHM champions due to experience and affinity for teamwork, discussions, and mentoring suggest this as a logical choice

Generation	Learning Style & SPHM
Generation X (1965-1980)	• Prefer hands-on learning activities, games • Enjoy interactive learning sessions e.g., Interactive computer based SPHM training; self-paced learning; uses detailed study guides • Like blended learning methods including online and classroom content • Comfortable with technology • Like practical reality-based/visual learning in less formal environment e.g., a skills fair prefers straightforward information and likely select learning in the easiest and fastest way possible
Millennials (Generation Y) (1981-1996)	• Enjoy integration of technology in learning environment • Visually literate; more comfortable with graphics and infographics • Learn by doing • Gravitate toward projects where they feel they make an impact • Enjoy collaborative projects and group activities e.g., simulation with feedback • Prefer a structured environment and expect learning to be fun.
Generation Z (1997 -2012)	• Enjoy integration of technology in learning environment • Dislike lectures; prefer microlearning such as podcasts, blogs, and short informational content delivery • Prefer to learn online and read on mobile devices • Like self-paced learning • Prefer active learning methods such as role play • View instructor as a facilitator, not necessarily as an authority • Comfortable with using technology and social media in learning activities • Benefits from a “meddler-in-the-middle” approach, where instructors work alongside learners helping them navigate through information and modeling that it is okay to make mistakes.

Source: *Monaghan, 2019;* Moore *et al, 2021; Tussing, et al., 2024*

Related Resources

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Teaching Across Generations. Govenor's States University. https://www.govst.edu/ctl/teaching-pedagogical-resources/teaching_across_generations/

A Guide to Leading the Multigenerational Workforce https://onlinemba.unc.edu/wp-content/uploads/sites/10/2021/05/Final_Multigenerational_Workforce_Guide_Optimized_Trial.pdf

Appendix C

Principles of Adult Education

Most students who attend safety and health training sessions are adults who already possess the knowledge, skills, and abilities to work in their current occupations. The objective of safety and health training is to provide additional knowledge, skills, and attitudes to assist workers in recognizing and taking action to correct hazards in their current work environments.

The following are the basic principles of how adults learn, which are directly applicable to safety and health training programs:

- **Adults are voluntary learners:** Most adults learn because they want to. They learn best when they have decided they need to learn for a particular reason.
- **Adults learn needed information quickly:** Adults need to see that the subject matter and the methods are relevant to their lives and to what they want to learn. They have a right to know why the information is important to them.
- **Adults come with a good deal of life experience that needs to be acknowledged:** They should be encouraged to share their experiences and knowledge.
- **Adults need to be treated with respect:** They resent an instructor who talks down to them or ignores their ideas and concerns.
- **Adults learn more when they participate in the learning process:** Adults need to be involved and actively participate in class.
- **Adults learn best by doing:** Adults need to "try-on" and practice what they are learning. They will retain more information when they use and practice their knowledge and skills in class.
- **Adults need to know where they are heading:** Learners need "route maps" with clear objectives. Each new piece of information needs to build logically on the last.
- **Adults learn best when new information is reinforced and repeated:** Adults need to hear things more than once. They need time to master new knowledge, skills, and attitudes. They need to have this mastery reinforced at every opportunity.
- **Adults learn better when information is presented in different ways:** They will learn better when an instructor uses a variety of teaching techniques.
- Three kinds of "learning exchanges" should be used during training:
  - **Participant-to-Participant:** "Participant-to-participant" learning exchange recognizes that participants can learn from one another's experiences. Participant-to-participant exchanges should be a key feature of the training.
  - **Participant-to-Facilitator:** Facilitators can learn as much from training sessions as participants do. On many subjects, a group of participants may have more extensive knowledge and experience in certain areas than a facilitator.

Principles of Adult Education

- **Facilitator-to-Participant:** Classroom learning needs structure. A facilitator's role is to guide discussions, encourage participation, draw out and/or add information as needed, and highlight key issues and points.

Source: Best Practices for the Development, Delivery, and Evaluation of Susan Harwood Training Grants OSHA 3686-09 2010. https://www.osha.gov/harwoodgrants/best-practices#7

The following resources provide more information about the principles of adult:

- 8 Types of Learning Styles | The Definitive Guide. March 7, 2024. Bay Atlantic University https://bau.edu/blog/types-of-learning-styles/
- 10 Simple Principles of Adult Learning. Western Governors University https://www.wgu.edu/blog/adult-learning-theories-principles2004.html
- TEAL Center Fact Sheet No. 11: Adult Learning Theories Adult Learning Theory 2011. The Literacy Information and Communication System (LINCS) https://lincs.ed.gov/sites/default/files/11_%20TEAL_Adult_Learning_Theory.pdf

Appendix D

Characteristics of Sound Training Programs – OSHA

A general review of training "best practices" reveals four characteristics that sound training programs have in common. The best training programs are accurate, credible, clear, and practical.

1. **Accurate.** Training materials should be prepared by qualified individuals, updated as needed, and facilitated by appropriately qualified and experienced individuals employing appropriate training techniques and methods.
2. **Credible**. Training facilitators should have a general safety and health background or be a subject matter expert in a health or safety-related field. They should also have experience training adults or experience working with the target population. Practical experience in the field of safety and health as well as experience in training facilitation contribute to a higher degree of facilitator credibility.
3. **Clear.** Training programs must not only be accurate and believable, but they must also be clear and understandable to the participant. If the material is only understandable to someone with a college education or someone who understands the jargon, then the program falls short of meeting workers' needs.
    - Training materials should be written in the language and grammar of the everyday speech of the participants. Training developers should ensure that readability and language choices match the intended audience.
    - If an employee does not speak or comprehend English, instruction must be provided in a language that the employee can understand. Similarly, if the employee's vocabulary is limited or there is evidence of low literacy among participants, the training must account for this limitation. Remember that workers may be fluent in a language other than English, or they may have low literacy in both English and their primary language. Training needs to be adjusted to accommodate all the factors that are present.
4. **Practical.** Training programs should present information, ideas, and skills that participants see as directly useful in their working lives.
    - Successful transfer of learning occurs when the participant can see how information presented in a training session can be applied in the workplace.

Source:

'Best Practices for the Development, Delivery, and Evaluation of Susan Harwood Training' Grants' https://www.osha.gov/dte/sharwood/best-practices.html

Resource for Development and Delivery of Training to Workers. OSHA 3824-05R 2021. U.S. Department of Labor Occupational Safety and Health Administration https://www.osha.gov/sites/default/files/publications/osha3824.pdf

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