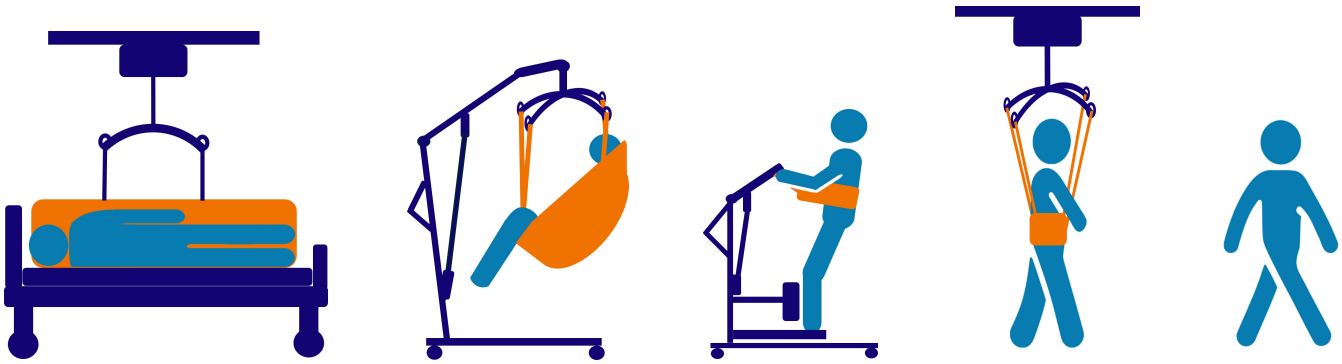
Nevada Hospital Association



Safe Patient Handling and Mobility: A Toolkit for Program Development

Section 8
SPHM Program Evaluation

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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

SPHM Program Evaluation

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SPHM Program Evaluation

Step 14

Evaluate the SPHM program

Why Evaluate the SPHM Program?

SPHM programs cannot be managed and sustained without clearly defined measurement systems. Program evaluation is an ongoing systematic process to determine the relevance, progress, efficiency, effectiveness, and impact of SPHM interventions (i.e., technology, practices, training etc.) and the implementation process.

The ANA SPHM standards (2021) Standard 8 states that "The employer and healthcare workers partner to establish a comprehensive system to evaluate safe patient handling and mobility (SPHM) program outcomes, trends, and processes, including staff performance, engagement, and compliance; staff injury incidence and severity; effectiveness of technology; and healthcare consumer outcome metrics" (ANA, 2021). The evaluation process described in this Section aligns with all elements of Standard 8

Tools that Support Content in this Section

8a. Program Measurement Plan

8b. SPHM post implementation survey and report template

8c. SPHM post implementation audit tool

8d. SPHM rounding tool

Ongoing evaluation of your SPHM program enables the SPHM coordinator, committee, and key stakeholders to ensure processes are effective, refine the program to meet evolving needs and enhance overall program performance.

Evaluation measures should identify program progress and indicate when goals are achieved.

As the program matures, the evaluation process follows a continuous improvement cycle, with each implementation phase informed by assessment results and organizational changes.

Demonstrating a commitment to program progress and value is essential to gaining stakeholder buy-in, driving change, and understanding cost impacts and return on investment. This information guides financial decisions and resource distribution to support continued program sustainability.

Ongoing evaluation of program outcomes and processes allows you to determine:

- The effectiveness of SPHM technology solutions and processes i.e., how well did they mitigate patient handling-related hazards and risk? Did they eliminate or reduce risk to an acceptable level?
- Periodic comparison of incident and injury rates and trends from patient handling to baseline levels.
- The degree of improvement in reducing the frequency and severity of patient handling incidents.

- Extent of reduction in patient handling incident frequency and severity.
- If there are any hazards that were previously unnoticed.
- If there are any unintended positive or negative consequences from implementing SPHM technology and processes.
- If there is ongoing compliance with procedures.
- If solutions and processes work well in context of the organization's culture in the present and future state.
- The relevance of solutions and processes over time with consideration to changes in delivery of patient care or to the physical environment, etc.
- Next steps to continually improve the program

Overall, evaluating SPHM solutions and implementation is essential for influencing employee behavior and achieving program goals.

Quick Tip

Program Evaluation in a Nutshell!

- **Choose metrics that address your organization's safety goals and challenges, not just what's easy to measure.**
- **Set measurable targets for each indicator so stakeholders have clear benchmarks.**
- **Explain to stakeholders what you're measuring, why, and how their roles contribute to safety improvements.**
- **Collect and review data regularly to ensure actionable insights for decisions.**
- **Use regular review of findings to improve the SPHM program and address issues promptly**
- **Document and report progress, highlight improvements and recognize stakeholder efforts to maintain their motivation.**

What Should Be Evaluated and How?

SPHM program goals and evaluation measures and metrics should be determined during program planning ***(Refer to Section 4)*** together with a plan for how and when they will be evaluated.

There are many program outcomes and processes that can be measured. However, it is recommended to limit the metrics chosen and keep measurement tools/systems simple especially at the start of the program. This allows you to effectively demonstrate outcomes and in turn gain support for program expansion and sustainability.

As discussed in ***Section 4***, metrics should be realistic, achievable, meaningful, identify accountabilities and help accurately check progress towards desired programs outcomes and change ***(Refer to Table 8.1).***

Ultimately, the metrics chosen to evaluate and manage an SPHM program will depend on the availability and quality of data in an organization, resources including the budget required to collect, evaluate, and report data, and the methods a healthcare facility typically uses to evaluate program performance.

When determining how to evaluate your SPHM program consider:

- How data will be collected, analyzed, and reported. Consider using a variety of methods and tools needed and if they can be standardized to evaluate program performance and activities throughout an organization, within individual sites or departments, or for a pilot study group.

- The target population e.g., when surveying caregivers, support service employees, patients, and/or specific units/departments etc. This helps guide the selection of appropriate data collection methods and tools that will yield data that effectively measures program success.
- The quality of data, its susceptibility to SPHM interventions, and the measurable relationship between implementing SPHM technology, program processes, and specific program goals.
- Availability of electronic data management, i.e., a computer-based data collection system that will be needed retroactively identify and extract data using built-in search functions and analyze and store data and create reports.
- How data will be shared the evaluation data with all stakeholders.
- How follow-up will be conducted based on the collected data and evaluated processes. Consider budget, staff, sample documents & templates, external assistance needed.

The same methods and tools that were used for collecting baseline injury and cost data and evaluating program needs such as the Gap Analysis tool and employee surveys ***(Refer to Sections 2-4)***, can be used to collect post implementation data. This will allow comparison of pre-and post-implementation results. ***Table 8.1*** lists the tools provided in this toolkit that can be used for program evaluation.

Program evaluation methods may evolve depending on effectiveness of data collection methods and the program maturity. If you introduce new assessment tools, make sure to use the first data collection as a baseline in which to compare other data collected during re-evaluation.

Tool 8a *provides examples of process and outcomes related measures that can be used to evaluate your SPHM program, together with resources provided from this toolkit that can be used to assess each measure, organized in a project management format.*

Choosing SPHM Program Evaluation Tools

Ideally the best way to evaluate program processes and outcomes is to use a standardized tool that demonstrates strong psychometric qualities, such as validity and reliability, and is tailored to the specific requirements of the program. However, finding such a tool that meets your program evaluation needs can be challenging. If no suitable tool exists, develop a custom one with input from subject matter experts and pilot test it with a comparable population to the population you will be evaluating in the program (VHA, 2016). Pilot testing a tool will help to determine validity (the extent to which a tool accurately measures what it intends to measure), and reliability (consistency of the results if it were administered multiple times under similar conditions). Pilot testing also helps to improve administration procedures.

When comparing results, it is important to evaluate the comparability of the data between units/department, and facilities as applicable, years, and sources. Utilizing data from the same source is critical (VHA, 2016).

The data-collection tools included in this Toolkit are intended to be adaptable. They offer a framework for data collection, allowing organizations to determine their methods of use, and identify if more information should be gathered from relevant stakeholder groups, and assess whether pilot testing of a tool is appropriate.

Choosing SPHM Program Evaluation Tools
Consider how data and what type of data is to be collected i.e., qualitative and/or quantitative data. Identify the resources required to develop or adapt, administer, and analyze findings for each type of tool used, ensuring that information collected is valid and reliable. For example, interviews or focus groups should be led by trained interviewers, and qualitative data should be managed and analyzed and interpreted by someone experienced in qualitative research design (VHA, 2016). *Finding assistance to develop and administer program evaluation tools is discussed on* ***page 8-16.*** Utilizing multiple data collection methods can increase participant reach and is considered acceptable, provided that the results remain comparable. ***Tools to assist SPHM program evaluation and included in this toolkit:*** 2a. Master tool for tracking and analyzing incident and injury data. 2b. Injury data summary report 2c. Calculating direct and indirect injury costs 2d. Coding and analyzing injury data and costs 3a. Gap analysis tool 3b. Employee perception survey 3c. Work-related musculoskeletal disorder (WMSD) symptom/discomfort survey 3d. Manager survey of unit/department characteristics 3e. SPHM technology inventory survey 3f. Site visit assessment checklist 3g. Worksite assessment summary 4a. Prioritizing level of risk for SPHM and solutions 4d. Communications plan 6a. Education and training plan 7b. SPHM budget template *And* all tools provided in ***Section 8*** *The use of each tool is covered in its section*.

Table 8.1 *Choosing SPHM Program Evaluation Tools.*

Evaluation Methods

SPHM program evaluation typically has three phases: implementation, process, and outcomes.

Each phase depends on the previous one: implementation evaluation must precede process evaluation, which should be completed before outcomes are evaluated.

The evaluation questions asked, and tools/sources will vary depending on the evaluation phase. Some tools may be appropriate for more than one phase of evaluation such an audit tool used during

program implementation to evaluate caregiver compliance when using SPHM technology on a pilot unit that may also be used to assess compliance following program implementation.

Implementation evaluation

This type of evaluation measures the extent to which the SPHM program was *implemented* as intended e.g., on a pilot unit/department ***(Refer to Section 7).***

This evaluation focuses on determining if the implementation process worked as planned. It identifies what elements or activities did not work well and what needs to be changed and why. This allows you to identify barriers, challenges, and opportunities as they arise and adjust strategy for program implementation in other units/departments.

Program evaluation methods can be developed and tested during implementation to ensure they assess SPHM processes and capture the program's effectiveness accurately when they are used to evaluate the program after implementation.

Implementation measures can be evaluated using tools such as surveys, interviews, focus groups, and direct observation.

Process evaluation

This type of evaluation measures program activities and determines the degree to which they are executed as planned.

Process evaluations by providing insights into the actions and activities that drive program outcomes, allowing for proactive adjustments and continuous improvement efforts.

If process measures are not evaluated regularly, it can be difficult to determine the reasons behind specific program outcomes achieved.

Process measures are synonymous with leading indicators ***(Refer to page 8-13).***

The goal of process evaluation is to improve understanding of program operations and optimize the SPHM program by:

- Assessing the effectiveness of SPHM solutions to reduce risk of harm to caregivers and patients
- Verifying compliance with SPHM policies and procedures
- Engaging stakeholders and *identifying cause for* resistance to change
- Track progress toward milestones and deadlines at the unit, department, and/or facility level
- Identifying activities needing improvement
- Developing strategies for compliance
- Identifying corrective actions directed toward improvement priorities
- Establishing short- and long-term improvement goals
- Taking additional actions when compliance and improvement is not achieved or sustained

Process evaluation is not used to make conclusions about program effectiveness for meeting long-term outcomes though it may reveal early indicators of impact. It is sometimes the only possible evaluation or main source for improvement, especially when a SPHM program is new.

Process measures can be evaluated using tools such as surveys, interviews, focus groups, and direct observations and audits and document reviews ***Refer to Sections 3 and 4*** *for more information using evaluation tools provided with this Toolkit. Refer to Post Implementation SPHM surveys on* ***page 8-20*** *and Post Implementation SPHM audits on* ***page 8-23.***

Data collected through process evaluation is typically qualitative or descriptive in nature.

However, quantitative data might be used to track how many employees participated in the SPHM intervention (such as training attendance), measure intervention delivery (such as the number of overhead lifts installed versus the target number), and/or assess how closely SPHM processes implemented according to their intended design (for example, by using a patient mobility assessment tool).

SPHM program processes to be evaluated include:

- SPHM technology use - user competency and tracking counts of lift use
- SPHM technology logistics - availability, ease of access, cleaning, and maintenance
- Education & Training: number of sessions completed & attendance; competency assessments and effectiveness of training
- Patient mobility assessment and communication
- Unit based champion program - recruitment, training, supported and effective
- Incident reporting
- Incident response procedures & response to high hazard issues
- Post incident investigation and review - root cause analysis and tracking of corrective action to completion
- Policy implementation, review, update, and enforcement
- Worksite analysis - high risk jobs or tasks identified and analyzed; worksite audits completed with corrective action
- Hazard prevention & control - activities to identify and correct and prevent patient handling incidents; proactive facilities design
- Absence and disability management – return-to-work strategies and claims closure goals, management and injured employee services satisfaction
- Program management activities:
    - Management commitment and employee engagement
    - Communication related activities completed and reviewed for effectiveness
    - SPHM committee - membership; number of meetings and attendance etc.; effectiveness of the committee, etc.)
    - Recordkeeping methods

- Overall program goals and timelines met

- Program Compliance with State regulations, other organizational policies, appropriate professional codes of ethics, the Health Insurance Portability Privacy and Accountability Act, the Americans with Disabilities Act, state workers' compensation laws, and other applicable codes and regulations (ANA, 2021).

Outcome evaluation

Outcome evaluation assesses the long-term effects of the SPHM program, aiming to determine the program's specific impact e.g., to reduce patient handling related injury rates and improve specific patient outcomes amid various influencing factors. Many outcome measures that are used to determine if SPHM program goals are met are synonymous with lagging indicators or metrics ***(Refer to page 8-11).***

Outcome evaluation is used for a variety of reasons including to:

- Determine whether the program met its stated goals
- Assess how the program impacted the target group(s) such as caregivers and patients, and how issues were addressed
- Compare effectiveness of the program approach to achieve desired goals with other approaches
- Assess the overall value of the program and contribution to organizational goals (e.g., meeting desired key performance indicators)
- Guide decisions to modify, continue, or discontinue the program

Outcome measures can be evaluated using employee injury/incident data, rates and related direct and indirect costs, patient quality/safety metrics (as related to SPHM activities), and employee and patient satisfaction surveys.

Data collected is typically quantitative that is 'countable' but measures such as evaluating caregiver job satisfaction or patient experience with use of SPHM technology will yield qualitative or descriptive information.

Examples of outcomes measures include:

- Total recordable injury rate (TRIR) per 100 per FTEs[1]
- Lost workday incident rate 100 per FTEs
- Days Away Restricted or Transferred (DART) rate per 100 FTEs
- Average number of lost workdays per injured worker per injury
- # Injury cases
- #Lost workday cases
- Total (&/or average) workers' compensation costs

Quick Tip

Artificial intelligence (AI) is increasingly being used in health care in various ways with the goal of enhancing efficiency, accuracy, and patient care. Stay informed (via your SPHM program champion and stakeholders in Information Technology, about any AI-Powered software technologies is being implementing or is currently being used in other departments at your facility that could be leveraged to assist the SPHM program to streamline data collection

- Total (&/or average) to replace one injured worker per shift. Can be permanent or temporary replacement costs i.e., a caregiver who is away from work and/or restricted duty per shift due to a patient handling related injury
- Non-OSHA recordable cases/incidents
- # Patient falls related to mobility activities with a caregiver(s) per 1000 patient days[2]
- # Hospital acquired pressure injuries related to lack of or manual repositioning in bed per 1000 patient days
- Improvement in intangible indictors such as caregiver job satisfaction by score or percentage improvement (***Refer to Table 8.2)*** and patient satisfaction with use of SPHM technology ***(Refer to Table 8.8).***

1. Calculating incident and injury related rates provides a standardized approach to assessing outcomes, as they enable comparisons between facilities and units of varying sizes. The denominator used in the calculation is hours worked by the target or exposed employee population so that the rate of injury per 100 Full Time Equivalent Employees (FTE) can be calculated (BLS, 2025). Calculating incident, injury and severity rates is described in ***Tool 2d.***

2. The denominator that is commonly used to standardize patient-related outcomes in an in-patient setting is "Bed days of care (BDOC)" i.e., to the total number of days patients spend in a hospital or other inpatient care setting. This number is often used to calculate events per standardized unit, such as per 1000 patient days.

   When evaluating outcomes, economic related data should also be reviewed. This includes assessing if the projected return-on-investment and cost-benefit goal(s) were met as determined when determining the program budget ***(Refer to Section 4).***

Quick Tip

As discussed in Section 1, two patient care tasks that are frequently 'missed' by nurses and CNAs are repositioning a patient in bed and patient ambulation. The consequences of missing these tasks are costly for patients and a health care facility. However, the frequency and consequences (cost) of missing these tasks may not be well known within your facility.

Consider conducting a brief pilot study to gather baseline data to determine how frequently these tasks are missed on a patient care unit that is identified as high risk for patient handling related injuries e.g. an intensive care unit (ICU) and then evaluate the impact of the SPHM program to reduce incidence of missed nursing care on that unit. Determine if

Partner with your patient safety and quality department for assistance. Students in baccalaureate and masters/advanced practice nursing programs may also be a resource for help.

Measuring Intangible and Complex Indicators
Organization related (operational losses)– caregiver turnover rate and satisfaction Establishing a direct link between SPHM activities and intangible indicators such as improved employee retention, recruitment, and decreased turnover rates can be challenging due to the complex interplay of organizational, psychosocial, and individual factors that influence these outcomes. Outcomes such as the impact of the SPHM program/activities on caregiver turnover are harder to evaluate because there are many other variables that may influence a caregiver's decision to leave an organization. If reduced caregiver turnover is used as an outcome measure in a SPHM program, it is important to support it with data. Unless job exit interviews are conducted and include specific questions related to the role of patient handling in a caregiver's decision to leave employment, turnover rates may not be a credible measure. Research supports that job satisfaction among healthcare professionals, particularly nurses, is strongly linked to positive patient outcomes (Yang et al., 2024) and healthcare employee retention, recruitment, and turnover rates (Galanis et al., 2023; Perlo et al., 2017). Job satisfaction related to SPHM impact may be a better indicator to evaluate through a post implementation SPHM employee survey or other employee satisfaction survey that a facility may already conduct. This may include the AHRQ Surveys on Patient Safety Culture® (SOPS®) Workplace Safety Supplemental Items for hospitals (https://www.ahrq.gov/sops/surveys/hospital/supplemental-items/workplace-safety.html) that are that is designed for use with the core SOPS Hospital Survey to help hospitals assess the extent to which their organization's culture supports workplace safety for providers and staff. This survey does include questions about the availability and use of SPHM technology and can also be used to assess burnout in healthcare settings. Refer to '*Finding Assistance to Develop, Administer and Analyze SPHM Program Evaluation*' on ***page 8-16.*** Although intangible benefits of SPHM Programs, such as improved morale and employee recruitment or retention, are hard to measure, providing anecdotal evidence of these benefits can be helpful. Linking these benefits to the organization's mission and values can further support the program's value. ***Organization related (operational losses)–patient quality indicators*** Many variables related to a patient's clinical and physical status may influence the effect of SPHM technology and practices on patient outcomes. For example, skin integrity and fall rates are used as indicators of quality of care and variables such as a patient's medical condition, environmental and other factors play into the probability of skin breakdown or patient falls. When using such metrics to assess the effect of SPHM on patient quality, ensure baseline data is accurate and reliable to clearly define the intervention's impact. Evaluating patient satisfaction with the use of SPHM technology is reviewed in ***Table 8.8.***

Table 8.2 *Measuring Intangible and Complex Indicators.*

Lagging and Leading Indicators that measure SPHM program performance

Lagging and leading indicators are metrics that are used to evaluate specific SPHM activities and overall program performance and progress within a defined period of time.

Leading indicators are proactive measures assessed through process evaluation, while outcome evaluation concerns lagging indicators that show results after events have occurred.

Thus, both types of indicators are needed to provide insights into past performance of an SPHM program and guide future program improvements.

The following provides guidance about the use of lagging and leading indicators when evaluating an SPHM program. Examples of lagging and leading indicators are shown in ***Table 8.3.***

Lagging Indicators (Past Performance & Reactive)	Leading Indicators (Predictive & Proactive)
Related to Patient handling Injuries • Injury frequency and severity rates such as the OSHA DART Rate (Days Away from work, Job Restrictions, and/or Transfer) • Worker comp costs • First aid cases • Replacement costs for employees on restricted or modified duty • Employee turnover rates • Employee absentee rates • Patient injury rates e.g., falls, HAPIs	*Outcomes and corrective actions from:* • Employee surveys, interviews, focus groups • Proactive Safety Huddles • SPHM audits to review procedural compliance with use of SPHM technology and processes; technology availability & maintenance; identify hazards, etc. • Near-miss reporting • Ergonomics analysis to identify, quantify *and address* WMSD risk • Employee and patient satisfaction • Early mobility practices; correct use of patient mobility assessment protocols • Measuring the frequency, quality, and effectiveness of training • Availability and effectiveness of unit-based champions or peer coaches

Table 8.3 *Examples of Lagging and Leading Indicators.*

Lagging indicators

Employee injuries and their associated direct costs are frequently used to justify and evaluate SPHM programs. However, these indicators are considered "lagging" in nature because they measure past safety performance, meaning that employees have already been injured while performing patient handling tasks.

Lagging indicators are usually output oriented and easy to measure but have little to no direct correlation to daily activities as they reflect the cumulative effect of various actions and decisions taken over time. As past outcomes they cannot be directly influenced or changed once they have been measured.

Lagging indicators do not help to identify hazards and prevent injuries from occurring or assess program effectiveness.

Although lagging indicators can be beneficial in identifying and estimating future injury trends, evaluating a SPHM program using *only* "lagging" indicators, is considered a *reactive* approach to safety management and can be a barrier to safety improvement (Moore et al., 2022). For example, in smaller health care units/departments or locations such as outpatient clinics, there may not be enough injuries to identify trends, but high-risk patient handling activities that are performed intermittently place caregivers and patients at risk of injury. In this case injury data and costs alone may not be enough to justify purchase of SPHM technology and implement a program.

Using only lagging indicators can lead to complacency, for example, a low injury rate that misleads managers to overlook safety initiatives even when risks remain.

Lagging safety indicators are susceptible to being influenced or skewed by several factors ***(Table 8.4).***

Lagging indicators can be useful for analyzing historical trends and evaluating overall effectiveness of an SPHM program to reduce injury rates and associated costs. However, using them alongside leading indicators and contextual information provides a more comprehensive understanding of an SPHM program's performance. (Moore et al., 2022).

Factors that can Influence Lagging Indicators

Factors that can influence lagging indicators include:

- Underreporting of WMSDs
- Identifying a single event or patient handling task that causes a WMSD is difficult, since symptoms usually develop gradually due to the impact of cumulative exposure to patient handling, and may be impacted by psychosocial, organizational risk, and individual risk factors. A caregiver may experience pain for months before reporting an injury, so the actual date when the injury started may be recorded in the post-program implementation period or a later quarter/year.
- Injury claims management, including the access to early return-to-work programs, claims closure and reopening practices, together with state worker compensation laws, can influence the severity of patient handling claims such as the number cases, rates and costs of injuries with days away from work, restricted, or transferred duty.

Factors that can Influence Lagging Indicators
• OSHA recording keeping requirements also impacts accuracy of data when tracking severity of patient handling related injuries involving days away from work and/or days of job transfer or restriction. Cases recorded on the OSHA 300 log can be 'capped' at 180 days away from work and/or days of job transfer or restriction (OSHA, ND) so claims exceeding this limit may not reflect true severity (OSHA, ND). • Misclassification of patient handling incidents due to undefined or non-standard/coded incident variables ***(Refer to Table 8.5).*** • Variation about what information is included in the incident description on the OSHA 300 log and workers compensation 'first report of injury' forms. OSHA recordable data and workers compensation loss run reports do not provide enough detail about the task being performed, underlying causative factors occurring at the time of an incident or situational context such as, clinical factors affecting patient behavior, staffing levels etc. • Injury rates can be impacted by the variability in culture of safety and injury reporting practices between by unit/department and/or between facilities within the same organization. • In smaller health care units/departments with fewer employees or limited work hours a single patient handling incident can disproportionately skew lagging metrics such as Total Recordable Incident Rates (TRIR). OSHA 300 log cases are limited to a maximum of 180 days away from work or on job transfer/restriction, so claims exceeding this limit may not reflect true severity (OSHA, ND).

Table 8.4 *Factors that can Influence Lagging Indicators.*

The Importance of Coding and Standardizing Patient Handling Injury Data
Consistency in definitions, measurement criteria, and in the use of evidence-based data collection methodologies is essential to ensure that the resulting information is both meaningful and actionable (ANA, 2021). As discussed in ***Section 2*** and in ***Tool 2d***, developing and adopting standardized coding methods for patient handling incident and injury related data should be completed when collecting and reviewing baseline data at the start of the SPHM program planning process. For example, coding patient handling incidents by specific activity types and causes. This practice is essential to facilitate accurate analysis of data and identify trends before and after the program is implemented and sustained. Your worker compensation carrier/third part administrator (TPA) may also be able assist you to standardized descriptions and common causes of patient handling related incidents.

The Importance of Coding and Standardizing Patient Handling Injury Data
The *Master Data* spreadsheet in ***Tool 2a*** provides an example of how injury data can be standardized to ensure accuracy of data measurement and management. When documenting the program evaluation methods and metrics in your SPHM program plan, include an outline of your injury coding definitions and other procedures that aim to promote uniformity in reporting of injury data and quality measures. This includes clearly defining what care tasks are considered as patient handling related and will be included in program metrics. For example, would a back strain suffered by a caregiver while transporting a patient in bed or on a stretcher be counted as a patient handling related task? It is important to determine how information about caregiver injuries that occur during patient handling tasks but are not *directly* caused by manual handling techniques or SPHM technology use, will be recorded. For instance, if a caregiver is injured due to patient aggression during a pivot-transfer from bed to chair, consideration should be given to how this incident will be classified. Such cases may require coding as both patient handling and workplace violence incidents, as analyzing prevention strategies from both perspectives supports caregiver safety and ensures accurate data collection. If these incidents are classified solely under patient handling or workplace violence, the resulting data may not fully reflect the contributing factors. If data is collected and coded consistently over time confidence in data trends pre and post program implementation is enhanced.

Table 8.5 *The Importance of Coding and Standardizing Patient Handling Injury Data.*

Leading indicators

Leading indicators are *proactive* measures that can assess the effectiveness of SPHM related activities and identify potential problems such as injury risk within a program, that the employer can address *before* injuries occur (OSHA, 2016). They focus on behaviors and activities that predict future safety performance, allowing for early intervention and continuous improvement (Moore et al., 2022).

Leading indicators have a direct correlation to work activities and are easy to influence or control . They are input oriented because they define what actions must be taken to achieve SPHM program goals with measurable outcomes. However, they can be harder to measure in that they require more effort to track and quantify.

Leading indicators are metrics that *precede* lagging indicators. Addressing issues related to program activities identified by leading indicators may help to reduce injuries and influence changes in lagging indicators. For example, tracking near-miss reports (a leading indicator) enables early interventions that can reduce injury rates (a lagging indicator).

Tracking leading indicators is *essential* to demonstrate that SPHM program activities are effective and achieving the desired results.

Selecting appropriate leading indicators is crucial, as they inform decisions regarding safety initiatives and the allocation of resources ***(Refer to Table 8.6).***

Select indicators that can be readily collected and analyzed, provide meaningful information, and help identify deficiencies in SPHM program efforts. Effective indicators are scalable and actionable, supporting program growth and continuous improvement.

An improvement in outcomes following an improvement in leading indicators demonstrates an association of leading with lagging indicators. This association is a necessary feature of leading indicators (Moore et al., 2022).

By using a balanced approach to program evaluation that includes both leading and lagging indicators , healthcare facilities can establish a robust SPHM program that effectively prevents injuries, promotes a strong safety culture, and supports the well-being of both patients and staff.

If a SPHM program is well designed and implemented effectively, injury rates and related costs typically decrease as the program matures, resulting in lower annual returns. Performance measures for the program should then shift from a reactive approach to a proactive strategy focused on managing risks associated with patient handling.

This highlights the importance of valuing a SPHM program for more than just reducing employee injury costs. To support continued investment of the program, it is necessary to assess additional operational outcomes to demonstrate the effects of SPHM on patient care quality, as well as staff comfort and satisfaction (ISO, 2012).

Essential Characteristics of Leading Indicators

Leading indicators should be:

Accurate - Indicators should be **clearly defined and measurable**, allowing for a certain understanding of what needs to be improved and by how much. The **data collected** for leading indicators needs to be accurate, complete, and unbiased to ensure reliable predictions.

Reliable - They must **reliably** produce consistent results when measured repeatedly under similar conditions.

Valid - Accurately measure what they are intended to measure

Predictive - display a clear correlation with the future outcomes being predicted, i.e., changes in the leading indicator should consistently precede and influence corresponding lagging outcomes.

Understandable -The metrics and what they measure are easily understood by all stakeholders

Meaningful - Easy to interpret across the organization, aligned with the SPHM program's strategic objectives and desired outcomes, and drive improvement

Adaptable - Can be easily applied to determine performance at an individual level, a unit/department level, and the aggregated organizational level

Actionable - Provides information that enables and drives stakeholders to take action to reduce patient handling related injuries

Essential Characteristics of Leading Indicators
Easy to collect, collate and report - Collection processes should be efficient and timely, utilizing existing data collection systems and processes wherever feasible, and amenable to automation and streamlined data processing. **Easy to Communicate -** Presented in a manner that provides quick interpretation and understanding of the data and summaries by all stakeholders. **Real time -** Monitored in real-time or as close as possible, to support informed decision-making and prompt action aimed at enhancing performance. *Adapted from OSHA, 2016; Rostykus w & Mallon J, 2017.*

Table 8.6 *Essential Characteristics of Leading Indicators.*

Who Should Evaluate SPHM Program?

The SPHM program coordinator, the SPHM Committee and other key stakeholder groups including patient quality, risk management, medicine, nursing, and therapy should be involved in program evaluation.

Managers of patient care units/areas and support services departments together with caregivers can help provide context for information being reviewed in relation to a specific unit or department.

Engaging a diverse group of stakeholders with a variety of backgrounds, skills, and experience will assist in providing a range of perspectives and insights about the impact of the program and ongoing program improvement.

As with other program activities engaging employees in the evaluation process can facilitate program success and sustainability.

When Should the SPHM Program be Evaluated?

The scheduling of evaluation activities depends on the stage of program implementation and the type of evaluation being conducted. Process evaluations begin early in implementation, while outcome evaluations are essential after implementation and during ongoing sustainment.

Scheduling and frequency of evaluation activities will vary depending on:

- The type of evaluation e.g., unit or department-based SPHM audits of patient handling activities, as well as assessments of logistics including the availability of SPHM technology and slings, should be conducted with greater frequency than activities like employee perception surveys. This approach enables proactive identification and prevention of hazards before incidents occur.
- The estimate timeframe for seeing results after implementing new SPHM processes and technology.
- Resources that are available.

- Program maturity for example, after a program has been in place for 2–3 years, employee surveys may be conducted biennially rather than annually.
- State SPHM regulations. The ANA SPHM Standard advises conducting evaluations on a regular basis, however, state SPHM laws (if applicable) mandate what should be evaluated and when evaluations should be conducted.

Program efforts should be evaluated:

- At program initiation, to assess feasibility and establish baseline metrics.
- During program implementation to evaluate progress of new processes and guide improvements as needed.
- After program implementation on a unit(s)/department(s), to assess the impact of solutions to reduce hazards and risk and to evaluate program implementation processes.
- When the program is expanded within a facility/organization.
- When changes occur in the workplace e.g. in delivery of care such as use of new medical equipment and/or treatment protocols; new workflow; staffing mix, nursing load, etc, in the patient population, or when structural modifications are made to the building or a department that may affect SPHM related activities.
- When new SPHM technology is introduced e.g., on a unit/department with an existing SPHM program.
- Whenever the employer is made aware of a new or previously unrecognized patient handling hazard.
- As a result of recommendations from investigation of patient handling related incidents.
- Formally and in depth at least once a year for each unit/department where the SPHM program is implemented
- Formally and in depth at least once a year of the overall program to determine accomplishments and to set goals for the upcoming year.

Quick Tip

Finding Assistance to Develop, Administer and Analyze SPHM Program Evaluation

Your clinical education, patient safety/quality and/or human resources departments may be able to assist with designing and administering tools such as surveys for the SPHM program. Your IT department may assist you with computer-based survey administration, audit and injury data tracking, data analysis and report development.

Before launching a survey, senior management and, where applicable, human resources must approve its content. In unionized facilities, union representatives should also review surveys intended for their members.

The Marketing department (as applicable) may be able help identify how to best promote survey activities.

Larger teaching hospitals may have a research department and/or statisticians who help analyze program evaluation data to determine statistical significance of SPHM outcomes. Local universities or colleges may have business students or statisticians available to assist in developing or administering evaluation tools as part of a course project

Evaluation of outcomes measures such as employee injury-related metrics should be monitored frequently e.g., monthly, or quarterly timely identification to identify trends in a timely manner.

Tool 8a provides examples of evaluation frequencies for different measures.

Overall, the evaluation of the SPHM program is an ongoing effort to identify issues and ensure continuous improvement and program sustainability.

Analyzing and Interpreting Data

The goal of evaluation is to produce timely, accurate, and objective findings that support the stated purpose of the evaluation, such as learning, accountability, and/or SPHM process improvement.

Conclusions drawn should align with this purpose, and data and conclusions should be presented in a meaningful, useful, and balanced way, which outlines the strengths and weaknesses of the methodology used (VHA, 2016).

It is recommended that data be collected and analyzed by individuals with adequate skills and experience in quantitative and qualitative data analysis (VHA, 2016). Refer to '*Finding Assistance to Develop, Administer and Analyze SPHM Program Evaluation*' on ***page 8-16.***

Assistance needed will depend on the evaluation methods used and the volume and quality of data collected, and depth of analysis needed to draw meaningful conclusions.

All evaluation results should be included in a performance improvement plan with strategies for corrective action.

A process to address manager and caregiver non-compliance of SPHM policy and procedures should be developed. As with the investigation of patient handling incidents, identifying the root cause of non-compliance must be considered from a systems perspective and not direct 'blame' towards one individual ***(Refer to Section 7)***.

Unit/department managers should be held accountable for injury rates only if they have control over the work environment. This includes having the appropriate SPHM technology and processes (with adequate staff training) and sufficient staffing needed for optimal performance and injury prevention.

Communicating Program Results

Regular meaningful and transparent communication with leadership and all stakeholders keeps everyone engaged in program efforts and supports ongoing program improvement. When employees can see that management is invested in their health and safety, both communication and practices typically improve.

This involves identifying the unit or department program data that will be shared with managers and employees from both pilot units or departments and across the organization, to assist in recognizing areas with fewer issues and to learn from their success.

It is also important to share program updates and successes with stakeholders who provide essential support services for the program such as EVS, facilities maintenance etc., as well as with patients and families.

Some program metrics may need to be reported more frequently early in the program and less frequently as the program becomes established.

Leadership should have clarified which program metrics they need and how often they wish to review them. As noted in ***Section 4***, leadership should understand that some SPHM program goals, like significantly reducing patient handling incidents in the first year may not be feasible and incidents may in fact increase due to improved reporting systems and a focus on early injury reporting. However, program activities are generally associated with a reduction in the *severity rates and costs* of injuries during the earlier phase of program implementation.

How and when program outcomes, successes and progress will be shared with all stakeholders should be included in your SPHM Communications plan (***Refer to Section 4).***

Using multiple media to disseminate information is more effective than a single delivery method (***Refer to Section 4).*** For example, showing positive program trends on visibly displayed dashboards together with conducting brief updates at staff meetings. For example, sharing scorecards that are used to track and evaluate the program's performance against key performance indicators (KPIs), measure its contributions to organizational objectives such as enhancing employee and patient satisfaction, and highlight areas for potential improvement activities.

Include information about how stakeholders can ask questions and provide feedback about data and can find out more about the program in general such as providing contact information for the SPHM program coordinator and SPHM committee members.

Having a dedicated webpage or repository on the facility intranet for all SPHM program related information can be an effective vehicle for ongoing communication to employees. Solicit assistance from your Information Technology department to determine ways employees can easily access relevant and timely information about the SPHM program and its progress.

Emphasizing successes and celebrating 'wins' helps build employee enthusiasm and support for the program. Commend program successes and 'good catches' (that prevent incidents and injuries) by individuals, specific disciplines, and unit(s)/department(s). Ensure they know how their efforts are making a difference in workplace safety.

Communicate remediation plans together with the time frame and persons/group responsible for completion for program activities that did not achieve expected results. This includes corrective action plans made after patient handling related near-misses and incidents occur.

It is also important to communicate with employees if, and why, a SPHM solution or process did not have the desired results, and why it may *not* be feasible to implement solutions that employees may have suggested. Providing this feedback to employees can assist to maintain employee involvement in the program.

Consider sharing your program efforts with your local community, e.g., authoring articles for local publications and working with local media to spotlight your program efforts.

Facilities with established, successful programs can be promoted as a more attractive place to work in terms of improved job satisfaction and employee wellbeing becoming an *Employer of Choice*.

State SPHM regulations may also define how program information and results are to be communicated.

Documenting and Recordkeeping

Ongoing documenting of all program evaluation activities and outcomes etc., is essential to effective management of the SPHM program and may be required by state SPHM regulations.

To facilitate program management, all program-related documentation should be stored in a specific location that is easily accessible to the SPHM program coordinator, committee members, and key stakeholders.

Unless state SPHM regulations or organizational policy specify otherwise, it is recommended that SPHM program records should be retained for at least 5 years, which is consistent with OSHA's requirements for work-related injury and illness reports.

SPHM Program documentation that is suggested or required (as stated):

- OSHA Log of Work-Related Injuries and Illnesses (OSHA Form 300 and 301) – *mandatory* for some employers with over 10 employees however, certain low-risk industries are exempt. For more information go to https://www.osha.gov/recordkeeping/
- Workers' compensation first report of injury or illness reports as required by state regulations.
- Records of all patient handling-related near misses and incident reports, including those resulting in injury and those resulting in no injury.
- Patient handling-related incidents and injury investigation process and corrective actions taken.
- Records of all SPHM program planning, implementation and evaluation activities including:
    - The SPHM program plan, project management timelines and activities, policy, and procedures etc.
    - Program evaluations outcomes and related process improvements activities e.g., injury data and cost analysis; gap analysis, employee surveys, worksite observations and audits, records of risk assessment/hazard analyses and corrective actions recommended and taken, patient safety/outcome related metrics, etc.
    - Training - the SPHM training plan, objectives, curriculum, qualifications and training of trainers, attendance, and training effectiveness evaluations etc ***(Refer to Section 6).***
    - SPHM processes such as SPHM technology selection methods, quantity, technical specifications including functions and weight capacities, storage location and location of use, inspection and maintenance, and replacement etc., and SPHM patient assessment protocols (***Refer to Section 5).***
    - Design and construction projects involving SPHM.
- Documentation of SPHM committee meeting minutes.
- Documentation of communication activities to stakeholders.

Program documentation must ensure and guarantee patient and employee confidentiality in accordance with organizational policies and all applicable state and federal regulations.

Post Implementation SPHM Employee Surveys

Developing SPHM Employee Surveys

Employee surveys can be used to aid SPHM program hazard identification and assessment and inform program planning ***(Refer to Section 3)*** and evaluation activities.

The employee survey provided with this Section ***(Tool 8b)*** is specifically designed to evaluate caregiver *perception* of an SPHM program following implementation on a unit/department or facility wide. It was developed using information from current SPHM literature and input from several hospitals who have used it to periodically evaluate their SPHM programs.

It is a comprehensive survey in that it aims to solicit employee responses about all major elements of a SPHM program ***(Refer to Table 8.7).*** It includes both multiple choice and open-ended questions and can be adapted to suit your program needs.

Tool 3b may also be used to assess pre and post implementation changes in employee perceptions regarding the types and frequencies of patient handling tasks performed within their unit or work area, as well as their views on the physical demands and perceived risks associated with each task.

When developing or adapting an existing SPHM program evaluation survey, plan how the data will be used and frame questions in a way that will elicit the most helpful information. Consider the stakeholder audience and units/departments you are targeting in your program efforts. Ensure language and terminology used can be understood by the employees you are surveying. In general, to facilitate participation an employee survey should take no longer than 10-15 minutes to complete.

Conducting a pilot test of a survey assists in evaluating the tool's validity and reliability, as well as enhancing survey administration procedures.

The survey is designed to be administered on a periodic basis such as every 1 or 2 years so consistency in survey items is important to ensure reliable data comparison and trend analysis. The sample survey provided is estimated to require approximately 15 minutes to complete when administered as a computer-based survey.

Refer to ***page 8-16*** *for m*ore information about soliciting assistance to develop and administer surveys and who should approve content before use.

Topics Included in the Post Implementation SPHM employee survey (*Tool 8b*)	

• Demographics:
  ○ Unit/Department
  ○ Role
  ○ Shift
• Employees overall experience related to use of SPHM technology and its ability to:
  ○ Reduce the chance of injury at work
  ○ Reduce physical fatigue and discomfort when lifting, repositioning, and transferring patients
  ○ Result in improved patient safety and comfort
• Use of specific type of SPHM technology on the employee's unit/department per shift
• Non-use of SPHM technology i.e., the number of times per shift where SPHM technology was not used despite being available
• Why SPHM technology was not used
• SPHM technology
  ○ Ease of use
  ○ Convenient location
  ○ Reliability
  ○ Being used to maximum capacity
• Sufficient SPHM technology to meet the demands of patient handling and transfers in the unit/department
• Slings management – use and supply
  ○ Easy to apply and remove
  ○ Clean slings are readily available for use whenever needed
	• Education & training:
	  ○ The employee received enough training to feel confident and safe when using SPHM technology for patient handling and transfers
	  ○ The training provided information/skills that have allowed the employee to use SPHM technology more frequently
	  ○ Barriers that prevented the caregiver from attending SPHM training
	• SPHM patient mobility assessment
	  ○ Awareness of the SPHM patient mobility assessment tool
	  ○ How often and when is the tool used
	• Whether or not use of SPHM technology to allows more time for patient care.
	• How satisfied an employee is with the current SPHM program and procedures
	• Whether or not management supports the use of SPHM technology for patient handling and transfers
	• Employee awareness of SPHM resources
	• Additional recommendations that employees may have to increase staff and patient safety and comfort during patient handling and mobility activities (open response)
	• Option to request a member of the SPHM team to contact the employee
	
	Note: Questions are multiple choice with the option to add comments

Table 8.7 *Topics Included in the Post Implementation SPHM Employee Survey* ***(Tool 8b).***

Conducting SPHM Employee Surveys

In addition to designing a survey that is meaningful and readily understood by employees, marketing the survey well is critical to gaining a good response rate from employees.

If you have not already done so in your SPHM communications plan, identify the most effective ways to share survey information with staff in each department, such as bulletin boards, newsletters, emails, meetings, or safety huddles.

Make sure all department/unit managers have been notified about the survey launch and rationale. Employees should have a clear understanding of why the survey is being conducted; the importance of their participation; and how collected data will be used. Communicate that you will provide a summary report of survey findings, and the projected timeline for publication of that report.

Timing the launch of a survey is also critical. If your facility is already conducting or planning to conduct other surveys that involve your target audience, such as Press Ganey or employee satisfaction surveys, these activities may influence the response rate to the SPHM survey. Health care workers are often surveyed regularly on a broad range of topics that can create 'survey fatigue.'

Offering the survey via web-based applications such 'Survey Monkey® can facilitate response rate and assist to expedite data analysis. Check with the Information Technology (IT) department at your facility to find out what application is available to help conduct the survey.

It is recommended that surveys are conducted on a voluntary basis, and are confidential and anonymous so that employees feel comfortable sharing their responses and experiences etc. You can add the option of allowing employees to provide their name and contact information if they choose to so that you can find out more about their responses as needed.

Include the contact information of the SPHM program coordinator or other member of the SPHM committee on the survey as a resource for employees that may have questions about contents of the survey or survey process etc.

Allowing employees to complete surveys on work time can also increase participation.

It is suggested that the survey is conducted for a 2–4-week period and then demographic data is reviewed to determine if more responses are desired from specific departments or units, shifts, and/or job categories. Consider marketing the survey again and allowing another 2 weeks to increase response rate as needed.

Analyzing and Reporting SPHM Survey Data

A key aspect of survey planning is determining who will analyze the data, how the analysis will be conducted, and reports developed. Commercial survey tools like Survey Monkey offer data analysis and graphs, but further analysis is often required for specific unit-level insights.

Tool 8b provides a survey report template.

A comprehensive survey report is usually provided to the SPHM committee, leadership, and senior management, while an executive summary is shared with employees. SPHM unit champions should review the overall summary and detailed data that is specific to their unit/department

Additionally, meeting with management and employee groups, such as staff on an SPHM pilot unit, to share survey findings fosters active engagement of leadership and employees in program development initiatives.

Post Implementation SPHM Worksite Audits

Periodic worksite audits of SPHM practices and the use and management of SPHM technology provide a proactive way to evaluate:

- Employee compliance with SPHM policy and procedures including the use of SPHM technology and completion of SPHM patient mobility assessment protocols
- The supply, care, and maintenance of SPHM technology
- Patient experience related to use of SPHM technology
- Barriers to SPHM adoption such as why caregivers choose manual patient handling instead of using SPHM technology *(if observed)* and facilitate process improvement
- Improvements needed to enhance specific program activities, such as the SPHM training curriculum.

They support ongoing staff involvement in the SPHM program, inform managers about its effectiveness in their unit or department, and offer guidance on corrective actions to improve compliance.

Audit content should be derived from data collected during worksite assessment activities including training related competencies developed from task observation and analysis ***(Refer to Section 3)***, which serve as the foundation for the development of appropriate SPHM policies and procedures.

Audits typically use checklists to record observations and evaluate compliance with program policy and procedures.

Tool 8c is an example of SPHM worksite audit tool that was developed, evaluated, and conducted at several hospitals.

It incorporates observation of caregivers performing patient handling tasks and evaluates use of SPHM technology ergonomics work practices and use of patient mobility assessment protocols.

It is also designed to facilitate evaluation of the patient experience when being lifted or mobilized with SPHM technology and caregiver feedback about feedback about the program. *Refer to evaluating patient experience with SPHM technology in* ***Table 8.6***

Tools 3e and 3f may be utilized to review *SPHM technology-related logistics* within a unit or department, including the following aspects:

- Ease of access, suitable storage (including accommodation for battery charging) and availability
- Proper labeling such as weight capacity, instructions for use/job training aids, and maintenance service checks
- Condition of technology and accessories such as slings e.g., damaged or non-functioning
- The suitability of the technology for the patient population

Audits can also include a review of patient charts or records e.g., checking appropriate documentation and use of SPHM patient mobility assessment protocols ***(Refer to Section 5)***.

Workplace safety related hazards or issues that are observed during an SPHM audit and need to be addressed *immediately*, should be reported to the unit/department manager (and/or shift charge nurse or supervisor as needed*) during* the visit. Follow your facility protocol for reporting and addressing urgent safety hazards.

When Should Audits be Conducted

The program coordinator and SPHM committee should determine how often audits are to be conducted and by whom as part of program evaluation planning.

Audit frequency is dependent on resources available to conduct and evaluate audit data and the maturity of the SPHM program within a unit or department.

Examples of Audit Applications:

- Conducting quarterly audits during the first year after implementing the SPHM program in a pilot unit or department can help to identify and resolve challenges before they affect caregiver practices. This is especially important if the unit or department does not have a SPHM champion or coach to monitor process compliance on a more frequent basis. In the second year after implementation, audits conducted every 6–12 months may be suitable if program compliance is satisfactory and objectives are being met.
- Audits may be needed at certain times of the year to support decision making about SPHM program activities.
- SPHM program coordinators and committees may conduct unscheduled or "spot" audits to review and help units with persistent patient handling incidents or unmet SPHM patient safety related goals, even after program implementation.

  For example, if the characteristics of the patient population on a unit have changed quickly and existing SPHM technology and protocols do not meet patient handling needs. An audit may reveal an increase in the number of admissions of immobile patients of size and/or cognitively impaired patients who are prone to aggression, to units unequipped to manage them. The unit may lack knowledge of how to seek help from the SPHM team or have no unit champion to address the situation promptly.
- Audit data gathered can be compared to data from areas where patient handling incidents/injuries have decreased to identify potential lessons to be learned.
- Audits can be conducted based on information about SPHM practices reported by employees during SPHM program surveys. For example, data from an employee SPHM survey indicates that caregivers do not use a certain type of available SPHM technology on a specific unit/department. A spot audit of the unit that includes interviews with the manager and employees will help determine why the technology is not used and how to address the issue.
- Audits can be used as part of the incident investigation process following specific patient handling related incidents including those involving adverse events.

- Some SPHM process elements may be incorporated into other routine safety audits such as Environment of Care (EOC) rounding.

Who Should Conduct SPHM Audits?

SPHM audits may be conducted by unit SPHM champions or coaches, the SPHM program coordinator, and members of the SPHM committee or worksite assessment team, depending on available resources ***(Refer to Section 3).*** Having units or departments with SPHM programs conduct self-audits can help promote program accountability and ownership.

Audits should be performed by staff who are trained and have experience in SPHM techniques and have received instruction on the use of the audit tool and process.

Follow your organization's process to gain permission to observe patient handling tasks and ensure HIPPA compliance. Your SPHM program champion and unit/department managers can provide guidance.

This author has solicited assistance from student nurses to conduct SPHM audits as part of a research project. Students benefit from gaining practical experience in quality improvement initiatives, evidence-based practice, learning about research methods and data analysis which are valuable skills for their future careers. They gain an increased awareness about the importance of SPHM to promote a culture of safety for both patients and caregivers and themselves as the next generation of nurses or health care professionals.

Documenting and Communicating Audit Results

As with other data gathered from other program evaluation activities, the results of worksite audits should be documented and communicated to unit/department managers and employees so that SPHM processes can be improved as needed and successes can be celebrated.

Non-compliance with SPHM policy and procedures should be addressed promptly ***(Refer to page 8-17).*** Conducting informal interviews with employees and managers can help identify causes of non-compliance and necessary changes to eliminate barriers.

Determining Patient Satisfaction with SPHM Technology
Evaluating patient satisfaction related to the use of SPHM technology is an important measure to capture when determining if SPHM enhances patient experience. Patient satisfaction surveys such as the national Hospital Consumer Assessment of Healthcare Providers and Systems or HCAHPS survey (https://www.hcahpsonline.org/), or hospital quality surveys that are administered to recently discharged hospital patients do not typically include specific questions related to SPHM or mobility measures. Therefore, you will likely need to develop a process and tool to evaluate patient and family satisfaction related to the use of SPHM technology. This author has had the opportunity to work with several multidisciplinary SPHM committees to develop and evaluate several methods that attempt to capture patient feedback about the use of SPHM technology. These included: a. Post discharge interviews via telephone (as part of a routine quality survey) b. Interviews with patients immediately prior to discharge from a hospital, and c. Interviews with patients immediately after they were mobilized with SPHM technology (if they were able to understand and respond to the questions asked). The questions determined to be meaningful and that were posed to patients were: 1. Were you moved using equipment (used in methods a. and b)? 2. Were you comfortable during the transfer? 3. Did you feel safe during the transfer? 4. Did you receive education about the equipment prior to its use? When patients were asked about their experience related to the use of SPHM technology (such as overhead and floor-based lifts and friction reducing devices) via telephone interview (1) or prior to discharge (2), few could remember if they were lifted or moved using SPHM technology. Method (3) was the most effective in determining patient satisfaction with the use of SPHM technology. Family members were also asked about their perception of technology use if present when SPHM tasks were performed. The SPHM audit tool ***(Tool 8c)*** includes questions 1-4. This approach can be adapted to assess patient interactions with SPHM technology during rehabilitation therapy and collect real-time feedback on comfort and ease of use.

Table 8.8 *Determining Patient Satisfaction with SPHM Technology.*

Section Summary

SPHM Program Evaluation

STEP 13. Evaluate the SPHM Program

SPHM programs cannot be managed and sustained without clearly defined measurement systems. Program evaluation is a continuous, systematic process designed to assess the relevance, progress, efficiency, effectiveness, and impact of SPHM interventions—including technology, practices, training, and their implementation.

As a SPHM program matures, the evaluation process follows a continuous improvement cycle, with each implementation phase informed by assessment results and organizational changes.

SPHM program evaluation involves assessing:

- Process and strategies used to implement the program e.g., on a pilot unit/department to identify program-related barriers and opportunities and adjust strategy for program implementation in other units/departments.
- SPHM processes after implementation to determine the level of compliance with SPHM technology use and related activities that drive program outcomes and allow proactive adjustments and sustained improvement. Process measures are synonymous with leading indicators, i.e., proactive measures that evaluate the effectiveness of SPHM activities and identify potential problems, such as injury risks, which can be addressed before injuries occur.
- Outcomes to determine the program's measurable impact on achieving program goals and key performance indicators (KPIs). Many outcome measures used are synonymous with lagging indicators, i.e., metrics that show results after events have occurred, such as caregiver injury rates and associated costs.

Each stage of program evaluation builds on the previous one: implementation evaluation must precede process evaluation, which should be completed before outcomes are evaluated.

Evaluation activities and results should be documented and communicated to all stakeholders.

Regular communication of program progress, improvements, and recognition of stakeholder contributions fosters the active engagement of leadership and staff, supporting ongoing development and long-term sustainability of the program.

The tools provided in this toolkit can assist SPHM committees and stakeholders in conducting comprehensive evaluations. State regulations may specify how and when SPHM program evaluation should be conducted.

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

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