Sustainable Safe Patient handling Programs: A Summary of the Evidence Base - June 2014

Lynda Enos, RN, MS, COHN-S,CPE. HumanFit, LLC.

Key components related to sustainability of SPM programs - current evidence base

1. **Outcomes and Process Associated with National Implementation of Evidence- Based Safe patient Handling Programs in 140 Hospitals –** presented at the Safe Patient Handling and Movement Conference East, 2013, at the WA state 2013 SPH conference and the 2014 5th National Health care Ergonomics conference in OR. The findings are in the process of being published.

   VHA SPH Initiative
   - 4-year, $210 million endeavor to implement program throughout VA
   – Funds ½ time facility champion, equipment and infrastructure modifications
   - Began in 2008
   - Implementation/deployment in progress
   - Evaluation in progress

   Key findings of statistical significance to date:

   Amount of equipment installed and amount of ceiling lifts installed is associated with incidence of patient handling injuries i.e. the greater the number of ceiling lifts installed is associated with a larger decrease in staff injuries

   Facility champions (program coordinators) and **unit based peer leaders** are essential for program sustainability

   Facility champions
   – Manage gaps and coordinate solutions
   – Retrain and replenish unit peer leaders and replenish unit peer leaders
   – Mediate between safety, engineering, and nursing / other clinical groups
   – They work with staff: to empower, encourage, buy-in, model SPH
   – Administrative: get to know management and gain their buy in
   – Must have some protected time
   – Lead and coordinate local innovation

   Who are Facility Champions? See Appendix 2 for more information
   – *87% are Nurses; remainder are therapists, safety/ or industrial* hygienists, and others
   - To whom do they report? (Some reported to more than one person)
     – Nurse Exec (58%)
     – Other Service Chief (30%)
     – Director (12%)
     – Associate Director (34%)
   - How are they assigned?
     – Most are part time

   Unit Peer leaders (0.2 or 0.3 paid position) *See Appendix 2 for Roles and Responsibilities. Essential they have protected time for the SPH work*

2. **E Koppelaar, E et. al Individual and organizational determinants of use of ergonomic devices in healthcare** Occup Environ Med. 2011 Sep;68(9):659-65. doi: 10.1136/oem.2010.055939. Epub 2010 Nov 23.

Objective This study aims to identify individual and organizational determinants associated with the use of ergonomic devices during patient handling activities**.** This cross-sectional study was carried out in 19 nursing homes and 19 hospitals in the Netherlands where SPH programs have been well established for over 10 years.

Statistically significant determinants of lifting device use were:

- Nurses' motivation
- The presence of back complaints in the past 12 months and
- The inclusion in care protocols of strict guidance on the required use of ergonomic devices.

The organizational factors were:

- Convenience and easy access of lifting devices
- Management support and supportive management climate re use and supply of devices

3. **The following standards (and associated content) from The American Nurses Association 2013 - Safe Patient Handling and Mobility: Interprofessional National Standards reflect the current evidence base for sustainable SPH programs**

Standard 1. Establish a Culture of Safety
Standard 2. Implement and Sustain a Safe Patient Handling and Mobility (SPHM) Program
Standard 3. Incorporate Ergonomic Design Principles to Provide a Safe Environment of Care
Standard 4. Select, Install, and Maintain SPHM Technology
Standard 5. Establish a System for Education, Training, and Maintaining Competence
Standard 6. Integrate Patient-Centered SPHM Assessment, Plan of Care, and Use of SPHM Technology
Standard 7. Include SPHM in Reasonable Accommodation and Post-Injury Return to Work
Standard 8. Establish a Comprehensive Evaluation System

4. **Other published case studies report the following program components as significant to the sustainability of a SPH program:**

- Multifaceted, participatory SPH programs that are integrated across the continuum of care within a facility
- Collective, consistent, and sustained commitment by organizational leadership, managers, healthcare workers, and ancillary/support staff to emphasize safety over competing goals.
- Nursing and hospital leadership support - management values SPH/Community interest and support
- Active involvement of direct care nurses, and other health care workers throughout the program
- Use of equipment to safely lift, move, reposition and transport patients or residents and reduce or eliminate the injury risk such as, height-adjustable electric beds, mobile mechanical patient lifts, ceiling-mounted lifts, friction-reducing devices/lateral transfer aids, bed repositioning devices
- Equipment that is readily accessible and 'fits' the needs of the patient, task to be performed, caregiver and facility, is current in design and well maintained.
- Equipment accessories - sling management programs and availability of slings to match patient needs
- Support from key stakeholders to purchase, maintain, and replace equipment
- Competency based hands on training of staff on proper use of patient handling equipment/devices
- SPH patient assessment and documentation
- Standardized protocols and tools – where to go with questions and concerns

- Dedicated safe patient handling coordinator
- Organizational structure for and the use of unit-based peer leaders
- No manual lifting policies (except in emergency situations)
- SPH procedures that guide processes for safe lifting and movement of patients with a variety of clinical needs including consideration for patients of size.
- Collection of reliable data, ongoing monitoring of outcomes and reporting back to all's stakeholders/program constituents
- Social marketing programs

Carlson, E., Herman, B., and Brown, P. (2005). Effectiveness of a ceiling mounted lift system. *Journal of the Association of Occupational Health Professionals in Healthcare*, 25(3), 24-26.

Facilities Guidelines Institute (FGI). (2010a). *Guidelines for design and construction of health care facilities and* (2010b). *Patient handling and mobility assessments: A white paper.* www.fgiguidelines.org

Fujishiro, K. et al (2005). The Effect of Ergonomic Interventions in Healthcare Facilities on Musculoskeletal Disorders. *American Journal of Industrial Medicine, 48*, 338–347.

Nelson, A. Matz M, Chen F, Siddharthan K , Lloyd J, Fragala G (2006). Development and Evaluation of a Multifaceted Ergonomics Program to Prevent Injuries Associated with Patient Handling Tasks. *International Journal of Nursing Studies, 43(6)*:717–733.

The Joint Commission. Improving Patient and Worker Safety: Opportunities for Synergy, Collaboration and Innovation. Oakbrook Terrace, IL: The Joint Commission, Nov 2012. http://www.jointcommission.org/.

Safe Patient Handling A Summary of the Issue and Solutions: The Evidence Base - Lynda Enos, 2009 published on the Oregon Coalition for Health Care Ergonomics website www.hcergo.org

Silberstein, B Sustaining Safe Patient Handling Programs – Presentation about the WA state SPH initiative at the 2013 WA state SPH conference. Seattle, WA

Stevens L, Rees S, Lamb KV, Dalsing D. Creating a culture of safety for safe patient handling. Orthop Nurs. 2013 May-Jun;32(3):155-64

Appendix 1: Creating a Culture for Safe Patient Handling – Defining Elements of Sustainability

Source: Safe Patient Handling Programs: A Best Practices guide for Washington hospitals 2011 - Safe Patient Handling Steering Committee University of Washington Northwest Center for Occupational Health and Safety

Characteristics of a "sustainability model" that can help guide your facility's thinking and planning regarding safe patient handling (K. Johnson et al. 2004):

1. Sustainability is a change process that is cyclical and ongoing rather than one-time and linear or sequential

2. The system must be adaptive and receptive to change in order to sustain the innovation you are trying to institutionalize

3. Always keep in mind what it is you are trying to sustain, i.e. the innovation (safe patient handling programs, procedures, equipment) and the infrastructure to support SPH.

4. A sustainable innovation becomes integrated into normal operations. Sustainability is successful when something called "niche saturation" occurs, meaning that units and sub-units have assumed ownership of the innovation.

5. Sustainable innovation should demonstrate benefits to stakeholders. Ideally these benefits should be demonstrable before they are adopted but alternatively evaluation during implementation becomes a critical source of evidence of benefits.

Sustainability depends on both financial and human resources that are directly measurable and other factors that may be somewhat harder to quantify, like how well supported champions and direct care workers feel in their activities, or the waxing and waning of interest when something is new versus part of the background. The following elements provide a framework to conceptualize different factors that can influence the sustainability of a program, including recommendations for enhancing sustainability:

- **Finances**. Other programs may compete for funding, and if financial resources become insufficient to maintain the full SPH program, it is recommended to narrow the scope of the existing program as opposed to lowering the level of implementation intensity. In other words pilot in fewer units where you know you can do it right with the available resources.

- **Human capacity.** This includes individual knowledge, skills and abilities, and access to support. Reliance on only a few, potentially isolated champions makes the program vulnerable, while sharing information and support will be more likely to lead to innovative implementation and evaluation ideas and will contribute to a culture of safety. Support within the institution and from peer collaboration across the industry is crucial. The Washington Safe Patient Handling Steering Committee was established with exactly this goal in mind.

- **Structural or supportive resources.** Articulate measurable goals and conduct systematic data collection on injury trends. Emphasize patterns, rather than just numbers, to understand what's really happening and allow for programmatic modifications throughout the implementation process.

- **Activities**. Varying activities and events that deliver and publicize the importance of SPH is necessary in order for the program to maintain a high profile while the adoption of new behaviors associated with SPH is becoming acculturated into the system.

- **Effects.** Evidence of benefits in terms of reduced injuries to staff and patients, reduction of risk factors, as well as associated improvements in safety climate, beliefs, norms and practices can promote adherence and reinforce implementation among stakeholders.

- **Context.** Every institution has a different social and economic context in which the SPH program will be introduced. Thus, committees should adapt existing best practices and program flexibility while maintaining close contact with patients, families and staff

To complement these considerations, experienced SPH personnel have suggested a number of measures that helped their institutions to maintain program sustainability:

- Leadership at both the facility level and at the peer level with teams being more sustainable than individual leaders
- Communication of feedback between all levels of management
- Responsiveness to concerns when they are identified
- Use of incentives to encourage behavior change
- Explicit clarification of the roles and responsibilities of staff in the form of a written safe lifting policy.

Beyond actions that can be taken within a particular facility when planning and implementing a SPH program, hospitals are beginning to ask nursing schools and CNA programs to include SPH training (other than biomechanics) in their curriculum.

Incorporating this information in the initial training process will not only function as an information dissemination tool, but also foster an appreciation for SPH and a culture of safety among the next generation of direct care providers.

Johnson K, Hays C et al. 2004. Building capacity and sustainable prevention innovations: a sustainability planning model31. Eval & Program Planning 27:135-139.

Appendix 2: Sample Role of Key Personnel within a Safe Patient Handling/Mobilization Program

Source: Veterans Health Administration (VHA) Directive 2010-032 June 28, 2010 - SAFE PATIENT HANDLING PROGRAM AND FACILITY DESIGN

Director, Safety, Health, Environmental, and Emergency Management (10NS). The Director, Safety, Health, Environmental, and Emergency Management is responsible for providing management support and evaluation and technical assistance to VISNs and facilities, as appropriate, to ensure compliance with this Directive.

VISN Director. Each VISN Director is responsible for:

(1) Planning, coordinating, implementing, and maintaining a SPH Program across the VISN;

(2) Financial oversight across the VISN for SPH funding; and **VHA DIRECTIVE 2010-032 June 28, 2010 5** (3) Monitoring SPH program implementation by designating a VISN staff member or VISN committee to do so.

Health Care Facility Director. Each facility Director is responsible for:

(1) Planning, coordinating, implementing, and maintaining a SPH Program.

(2) Ensuring financial oversight of the SPH Program within the facility.

(3) Supporting the equivalent of 0.5 FTE SPH Facility Champion or Coordinator position, funded for 2 years (fiscal years 2010 and 2011), to:

(a) Address equipment needs;

(b) Develop a facility-wide unit peer leader (UPL) program;

(c) Train UPLs in their roles and responsibilities, elements of SPH policy, and equipment usage;

(d) Establish an end-user equipment maintenance program; and

(e) Coordinate the SPH Program within the facility.

(4) Ensuring the facility champions receives privacy training as instructed in Directive 7701 for Accident Review Board (ARB) members.

(5) Supporting a facility SPH UPL Program with one UPL per shift in each unit or clinical area.

(6) Ensuring the facility Nursing Service and a hospital committee (Safety, EOC, Patient Safety, or other newly organized committee) maintain oversight of SPH program operations and activities.

(7) Ensuring assistance from and collaboration between services and entities (such as facilities management, safety, contracting, logistics, SPD, nursing, therapy, etc.) that impact successful SPH Program implementation.

(8) Ensuring utilization of the SPH expertise of facility champions when developing renovation plans, facility projects, and new construction that involve introduction or installation of patient handling equipment.

(9) Ensuring that appropriate patient handling (lifting) equipment is installed during new construction and renovation construction projects in unit and clinical areas where patient handling occurs. The following is required:

(a) Completion of a detailed ergonomic evaluation during the design requirements planning process to determine necessary patient lifting equipment;

(b) Installation of ceiling-mounted or overhead lift systems, where necessary and feasible; and

(c) Provision of adequate and accessible storage space for portable or floor-based and other patient handling equipment.

(10) Ensuring appropriate patient handling injury data is provided to facility champions by the facility Safety Officer and Human Resources, as needed, in order for them to: investigate such injuries, provide recommendations, and track these injuries by unit, area, and hospital-wide.

(11) Ensuring patient handling equipment with attachment or other potential ligature points, such as ceiling lifts, are not installed in mental health units where patients are suicidal or psychiatrically unstable. In lieu of such prohibited equipment, portable lifting or moving devices may be used. Portable or floor-based and other patient handling equipment must be returned to locked storage immediately after use so that patients cannot access the equipment.

(12) Ensuring that the selection and design of ceiling lift systems in CLCs use as minimally obtrusive track systems as possible in order to maintain an aesthetically pleasing appearance in the resident room. It is imperative that SPH systems fit into a home-like environment in patient and resident rooms, especially in CLC settings. ***NOTE:*** *Ceiling lifts may be used in CLCs for all populations since residents must be medically and psychiatrically stable for admission and continued stay.*

SPH Facility Champions or Coordinators. SPH Facility Champions or Coordinators are responsible for:

(1) Implementing and maintaining the facility SPH Program;

(2) Providing leadership, education and training for UPLs;

(3) Investigating as appropriate, reviewing, and tracking patient handling injuries in order to make suitable recommendations to decrease caregiver risk of injury;

(4) Making patient handling equipment recommendations based on the ergonomic process and facilitating purchase of recommended equipment; and

(5) Ensuring oversight of patient handling equipment.

SPH Facility Committee. The SPH Facility Committee assists the SPH Facility Champion or Coordinator in:

(1) Implementing and maintaining the SPH Program;

(2) Reviewing and tracking injury data;

(3) Facilitating patient handling equipment selection and purchases;

(4) Ensuring awareness of patient handling issues within facility; and

(5) Facilitating collaboration with various services and entities within the facility that impact the SPH Program.

The SPH Facility Committee consists of a multidisciplinary group of clinical staff, facilities management staff, infection control staff, biomedical engineering staff, union representation, logistics staff, contracting staff, safety staff, occupational health staff, and others responsible for assisting in implementation of the SPH Program. This committee may be a sub-committee of an Environment of Care (EOC) or Safety Committee or an independently functioning committee.

SPH Unit Peer Leaders. (Paid position) UPLs provide expertise in the safe patient handling and moving of patients and residents. UPLs SPH expertise is needed to advise co-workers, demonstrate equipment use, and champion the safe patient handling initiative on their units.

ROLES & RESPONSIBILITIES (from VA UPL handbook)

Act as Unit SPHM Champion

- Act as unit expert and resource on patient care ergonomics, equipment use, and safe patient handling techniques for managers/supervisors, peers, patients, families
- Problem solve patient handing issues
- Motivate/coach peers – encourages co-workers in use of patient handling equipment and compliance with SPHM Program
- Bariatric SPHM resource/expert
- Assist in SPHM Program implementation

Train peers/mangers/patients/families

- Conduct staff in-services/training on SPHM issues, equipment, etc.
- On unit, orient new employees to SPHM & UPL role
- Facility-wide, participate in new employee orientation training
- Train, re-train co-workers on new & existing equipment
- Complete or assist in completion of equipment competency assessments
- Assist co-workers in patient/family training when needed

Facilitate SPHM Knowledge Transfer

- Maintain communication with other UPLs through
  - Face-to-face facility UPL meetings
  - UPL Email Group
  - Conference calls
- Share best practices learned during UPL meetings with co-workers/ management
- Communicate with Facility Champion
  - One-on-one as needed
  - UPL meetings
  - Ensure facility champion is aware of UPL personnel changes – resignation, transferring etc.
- Implement Safety Huddle (AAR) Program, Initially take lead in Safety Huddles
- Train staff on and ensure compliance with use of Algorithms

Monitor unit SPHM Program status/compliance

- Complete UPL Log to capture
  - UPL activity
  - SPHM Program status
  - SPHM Program acceptance
- Track equipment use
- Others

Equipment Super User

Equipment Use/Management

- Assist in conducting unit equipment needs evaluation
- Assist staff in selection of equipment through trials/equipment fairs
- Implement equipment introductions on unit
- Train staff on use of equipment (after initial manufacturer training)
- Track equipment locations, storage & ensure accessibility
- Track operational status and need for maintenance of equipment/batteries/slings
- Ensure annual/preventative maintenance is accomplished
- Track sling types, quantities, and condition
- Facilitate battery/sling/equipment orders when needed

- Notify appropriate staff when patient handling equipment problems/incidents arise
- Ensure facility & manufacturer infection control requirements are followed

Act as Unit liaison with

- Facility Champion/Coordinator
- equipment manufacturer/vendor
- purchasing
- Engineering/Facilities Management
- Infection control
- others

Conduct Ergonomic ongoing environmental/ergonomic evaluations, perform walk-throughs to assess equipment use and function

Maintain current knowledge of SPHM issues, technology, and best practices

- Attend facility UPL meetings, regional/national conference calls
- Participate in equipment manufacturer training
- Attend annual SPHM conferences

Follow unit injuries & close calls

- Assist in documentation and tracking of injuries and close calls
- Foster reporting of injuries, near misses, and safety concerns

Demonstrate Systems Thinking

- Participate in facility-wide SPHM initiatives and projects
- Foster supportive relationship with manager/supervisor
- Be knowledgeable of and provide input on facility policies/procedures