VETERANS HEALTH ADMINISTRATION
EXECUTIVE DECISION MEMO

TO: Under Secretary for Health (10)

THROUGH: National Leadership Board

THROUGH: Health Systems Committee

FROM: **Chief Public Health and Environmental Hazards Officer**
Chief Nursing Officer
Chief Patient Care Services Officer

SUBJECT: Safe Patient Movement and Handling Initiative

For Further Information Contact: Michael J. Hodgson, MD, MPH

Action Requested:
x_____ Request for approval
_____ Request for discussion or further review
_____ For your information
_____ Other (specify)

STATEMENT OF ISSUE: Implementation of safe patient movement and handling program to reduce employee injury.

RECOMMENDATION (of the requestor):

Select option 1

IDENTIFY THE VHA GOAL, OBJECTIVE AND STRATEGY BEING ADVANCED BY THE REQUESTED NLB ACTION:

Building Healthy Communities, becoming an employer of choice, nursing retention

I. **STATEMENT OF ISSUE:** Employee injuries in VHA caused by moving patients represent a major source of preventable disability among staff, a major workers compensation claims expense, and a major cause of premature retirements and loss of staff productivity. This decision memo proposes implementation of an evidence-based safe patient movement and handling initiative to minimize both the human and capital expenses associated with employee injuries caused by patient transfer injuries.

II. **SUMMARY OF FACTS AND/OR BACKGROUND:** From 2000 to 2007 between 16 percent and 12 percent of injuries to VHA staff each year resulted from handling patients. Nursing staff (RN, LPN, NA) experienced 77.2 percent of injuries associated with the handling of patients; 25 percent of those occurred in nursing home/extended care, 35 percent in medical surgical, 10 percent in other

in-patient (including spinal cord) units, 8.9 percent in intensive care, 4.2 percent in imaging departments, and 3 percent in emergency rooms and the remainder in areas with smaller percentages. Patient transfers caused the single largest number of injuries among nurses. The short term consequences are time away from work for injured personnel and medical costs. The long term consequences are early retirement, disability, and dissatisfaction with working conditions. Current annual costs are estimated at approximately $22,000,000 based on current reporting systems. This likely represents a substantial underestimate as 50 percent of injuries leading to changes in work shifts remain unreported according to VHA's national survey.

The Tampa Patient Safety Center of Inquiry developed a safe patient movement and handling program as a part of an initiative that led to markedly increased satisfaction among patients and staff, decreased number and severity of injuries among patient handlers, and improved patient quality of care. The program itself includes both general principles, and local implementation elements. Core elements include a risk assessment identifying local needs, selection (equipment fairs) and purchase of appropriate equipment, installation, training and education, introduction of safety peer leaders (injury prevention nurses, formerly Back Injury Resource Nurses [BIRN]), implementation of a maintenance program, and the development of a "minimal lift policy." A business case analysis of the VISN 8 data, collected from 2001 to 2003, project suggested a pay-back of the capital investment in approximately 4.13 years with an internal rate of return between 19 and 37 percent depending on model assumptions. This program served as the basis of the Occupational Safety and Health Administration Ergonomics Guidelines for Healthcare Facilities and has been rolled out by the American Nurses Association (ANA) as their "Handle with Care" program.

Emerging consensus over the last three years suggests that ceiling lifts and their associated slings, specific for various patient handling activities, represent a better, safer, and more effective long-term solution than portable devices although not all hospital environments and structures support such technology. Other technology also necessary for providing safe patient handling includes sit-to-stand lifts, air-assisted lateral-transfer devices, friction-reducing devices, bed/wheelchair movers, ergonomic shower chairs, motorized beds/gurneys, and others. Considerations for determination of appropriate technology interventions include local variations in causes of staff injuries, locations of injury (Geriatrics /Extended Care, Spinal Cord, Critical Care, Medical Surgical, etc.), unit patient population characteristics, and local planning construction and renovation.

An internal review of program implementation, both in VISN 8 and elsewhere, suggests overall average costs for equipment of $8,000 per bed. Between 2003 and 2006 VHA facilities spent approximately $22,000,000 on patient handling equipment (identified in a national data call from 10N). This money was generally re-allocated from other infrastructure projects identified in the Facility Condition Assessment (2005), and facilities and VISNs need these funds

replenished to finance those uncompleted infrastructure projects. Safe Patient Movement and Handling technology was not part of the Facility Condition Assessment in 2005.

As ceiling lift use has spread and replaced other forms of equipment, cost distributions have shifted. At present, a reasonable estimate for the cost of purchasing appropriate technology for all VHA facilities is approximately $150 million (see attached Patient Transfer Initiative Report, May 2007: attachment 1, based on the cost and benefit calculations in VISN 8), whereby approximately 20 percent will likely represent construction funds although the precise mixture of equipment and construction funds will depend on hospital and room specific issues, provided only after a detailed assessment at the facility level. A similar set of considerations in VISN 1, documented in an Executive Decision Memo (attachment 2), generated a VISN-wide implementation on high-risk units, so that similar explicit considerations have generated similar endeavors.

Since then, three more VISNs (3, 9, 11) have implemented safe patient movement and handling programs to varying degrees. The experiences from the last four years of roll-out and maintenance, subsequent to the initial data collection, suggest several important lessons not captured or addressed in earlier cost modeling. First, national program coordination is required for success. Although a position is currently funded for program implementation, support, and development (answering questions, providing initial training, supporting risk assessments, assisting in ergonomic evaluations and equipment recommendations), VHA CO must develop additional staffing support for program management and accounting, likely 1FTE. Second, at the VISN level, support will be needed at the .25 to .5 FTE level for at least two years to manage strategies, coordinate purchasing issues, and customize and develop maintenance programs within that VISN. Third, each facility similarly needs lead program staff (.5 FTE), likely nursing staff, who will provide leadership to unit peer leaders; manage program supplies, ordering, and troubleshooting; and assist in education/training and program continuity. Finally, experience from implementation shows that each unit must have local injury prevention resources to act as the unit expert and champion. In the absence of defined local champions, the program generally degraded. Implementation also requires a national level data system and assessment to provide facilities and VISNs with evaluations and tracking. In addition support is needed for VISN-based and national conference attendance.

Although this EDM proposes an aggressive VHA safe patient movement and handling initiative which will substantially reduce injuries and costs, three factors prevent complete elimination of patient transfer injuries, based on VHA experience over the last several years. First, staff turnover leads to a decline in knowledge and skills so that implementation is simply not sustained. Thus, a formal program element to sustain the program is essential. This requires both a facility champion who can act as leader of the unit peer leaders and accomplishes other patient handling-related program and equipment

(maintenance, planning, etc) functions, and a defined program of front line, peer safety leaders (injury prevention nurses / Back Injury Resource Nurses). Second, current approaches are designed to eliminate only approximately 60 percent of patient transfer injuries, with a substantial portion resulting from unanticipated events. Further research is warranted for clearer identification and intervention recommendations related to those other injuries. Third, as patient transfer injuries result in part from long-term strain on the musculoskeletal system, longer implementation, in a sustained fashion, and longer follow-up is needed to generate and document success in detail. Improved ways of returning nursing staff with partial physical work restrictions warrant additional research.

III. SYNOPSIS OF SIGNIFICANT RELATED ISSUES: A statement of any related or peripheral issues not covered in II that also should be considered (one to a few paragraphs).

1. Construction versus medical program funds: Consensus evolved over the last several years that ceiling lifts were both more effective and more acceptable than portable lifts. Installation of ceiling lifts requires assessment of the infrastructure as some building types, room sizes, and construction characteristics preclude simple installation of lift support tracks. Roll-out experience, though, suggests that such differences can be determined only through on-site review and room-by-room assessment. This requires an initial review by nursing and then a detailed assessment by engineering. And, in spite of the evidence and preference for ceiling lifts, some number of portable lifts are still essential. Thus, the appropriate balance of construction versus medical program (equipment) funds can be determined only after such a room-by-room assessment.

2. VISN Roll-out strategies: several VISNs and facilities have implemented the program, and the general experience is that it takes between at least one to three years or longer from initial planning through full implementation. Identification of a central staff person to coordinate risk assessments, identify solutions, align purchasing, and develop a maintenance programis essential for program success. In the absence of a designated individual who is invested with adequate authority, program implementation is unlikely to be successful. For the first two years, a .25 to .5 FTEE is proposed as necessary at the VISN level.

3. Facility-wide program development issues: Although the majority of the affected individuals are nurses, safe patient handling is important to other services, including imaging, physical therapy, and surgery. The program must include all areas were patient handling occurs. On the other hand, substantial portions of the program do not involve nursing skills. For example, coordinating risk assessments, solutions identification, purchasing alignment, developing maintenance program, ordering replacement parts, tracking storage space, and identifying obstacles to implementation does not require the clinical skills involved in nursing but are essential for program success. Assigning these to a specific individual, often requiring .5 FTE at the facility level, is necessary. In the absence of an individual designated to coordinate the program invested with adequate authority, such programs are simply not implemented. Funds were not included in the initial program costing as those functions were fulfilled by VISN 8 staff initially and have had to be constructed in existing facilities. Staffing for

program support at the VISN and facility level is likely to require approximately .5 FTE or approximately $5 million per year.

4. Nurse staffing: Facilities that did not emphasize a unit peer leader program and did not provide adequate staffing, training, and supervision generally saw degradation of their programs. Designation of a coordinator for the unit peer leaders with responsibility for training and leadership is necessary. At present no national estimate of the number of physically separate patient care units exists. It is at the level of the geographic unit that such front line peer safety leader support must exist (see the joint NIOSH-CDC/VHA IOM-committee publication" Safe Work in the 21st Century"). The initially estimated $16,000,000 represents only VISN and facility level support for three years, not the more extended roll-out discussed with the Office of Management and Budge, over six years. Other approaches to the" peer safety leader" issue have been tried, including the identification of roving support staff (Ergo Rangers") and facility-wide designated staff in commercial nursing homes. Although no formal" head to head" comparisons exist, the VHA model has supplanted the others as they were deemed less effective. Estimating an additional $1,000 per peer safety leader nurse with one on each shift on each unit is likely to lead to an additional $5,000,000 per year. Failure to support such staff financially may lead to degradation despite the presence of a facility champion, though that remains undocumented.

5. Information Technology: Work with the Automated Safety Incident Surveillance and Tracking System (ASISTS) and efforts to build a data cube in Proclarity have identified the limits of the current system: ASISTS will require either a major modification or complete reconstruction. VHA is unable to create rates of patient transfer injuries by critical elements, including by units or as a function of hazards and equipment. In the absence of program evaluation, based on such rigorous categories, the benefits are difficult to document. Oversight and accountability for such a large program appear important drivers. An application for an upgraded software system to track outcomes, such as patient transfer injury rates; leading indicators, such as installed patient transfer equipment, program supports such as backup equipment; reasons for failure, as arise from Accident Review Boards; and the recommendations designed to resolve those issues, is under development for the Information Data Management Committee.

6. Roll-out timing: Resources for VISN coordinator, Facility Coordinator, Unit Peer leaders, and equipment purchases and facility construction must be sequenced appropriately.

7. Those facilities that have expended resources on program development have diverted funds from other facility infrastructure elements. Those VISNs should be reimbursed. VISNs that have already implemented the program have expended over $20 million. Failure to do so is likely to discourage innovation and keep early adopters from similar endeavors in the future. Lessons from implementation have been critical for planning this effort. One approach, discussed with 10N, is to include expenditures over the last five years in the planned national assessment and to reimburse facilities in some "prorated" fashion, for example, for half of their documented actual expended costs for

construction and durable medical equipment.

8. In its negotiations with OMB, VHA agreed to a program rollout over six years rather than three. This has consequences for nurse staffing costs, as the $16 million in the initial budget proposal were simply for the first three years of program development. Those funds will need to be expanded in later years. In the national assessment, exploration of unit size, peer leader distribution needs, and funding implications must be included.

9. First-year funds expenditures: purchase of lateral transfer devices and other durable medical supplies for safe patient movement in handling together with reimbursement of previously expended funds to VISNs will justify the expenditure of $30 million.

May:	DUSHOM Item: Data call on expenditures
June:	funds disbursement
July-September:	basic equipment acquisition
September:	Facility champion training conference
	Report to Executive Committee
October:	Facility assessment and equipment inventory

10. VHA CO program oversight: currently no systems exist to manage or track costs, track program implementation status, or outcomes. This requires both a major modification of VHA's data system (a recent request to the IDMC has requested this) and a staff person for accountability and fiscal tracking. At present this program represents a joint effort between Nursing (NS) (staffing, primary" owner" of both injuries and benefits), Patient Care Services (PCS) (hazardous areas, including Geriatrics/Extended Care, Spinal Cord Injury, and others), and Public Health and Environmental Hazards (PHEH) (Occupational Health, Safety, and Prevention) but will become increasingly an operations (10N) program. Program start-up will require high levels of collaboration by all partner VHACO offices (PCS, ONS, OPEH, 10N). Likely by the third year, the various program elements and plans will have been put in place and program monitoring is likely better placed in 10N. A reasonable prior model is the acquisition of and training in the use of decontamination equipment, similarly developed in 13 and transitioned to 10N when mature.

11. The OMB-recommended roll-out, over six years, will lead many VISNs to feel at a disadvantage. As this program spreads in the private sector, not having it in place may leave facilities at a grave disadvantage in hiring. This may lead them to do "internal borrowing" and implement a program before their time and turn. VHA must roll this out over the next three (2009 to 2011) rather through 2013. .

IV. CRITERIA FOR DECISION MAKING: A listing of all significant criteria upon which the options for addressing the issue will be judged pro or con. ***NOTE:*** *This section should precisely specify the basis for making the decision*

1) Nursing Injuries and Safe Patient Movement and Handling: Is the program

necessary or useful?
Over the last 15 years, the inherent hazardous nature of nursing has been recognized. Biomechanical studies have shown patient handling and moving exceeds the biomechanical capabilities of workers[i], and, for this reason, a 35 pound lifting limit has been established for patient handling[ii], substantially below the figure initially estimated as the maximum based on the lifting equation developed by the National Institute for Occupational Safety and Health. The Department of Labor recognizes nursing as having among the highest injury rates of any occupation in the United States; data from VHA's injury management system suggest at least double the nationally reported rates. Ergonomic hazards represent a major problem for bedside nursing and the nursing communities, and technology solutions, such as under consideration here, clearly represent a major draw for nursing recruitment and retention. In response, major innovative programs have evolved separately in the United Kingdom, Holland, and the U.S. Several countries have national legislation; eight States (U.S.) have promulgated laws, including Texas, Washington, and Rhode Island; and two national legislative proposals have been brought before Congress. VHA developed the model program used by OSHA as the basis of its ergonomics guidelines for nursing homes, and the ANA rolled out VHA's program as its own "Handle with Care" program. Four VISNs have rolled out this program on high-risk units; one that is currently expanding it VISN-wide. VHA's program represents the national standard, implemented by other healthcare systems, including Kaiser, Hospital Corporation of America, the Department of Defense, and Ascension Health. International comparisons of programs existing in Europe and North America have identified elements necessary for successful Safe Patient Handling program implementation[iii]. All of the appropriate elements are included in the VA Safe Patient Handling Program. The program, including technology and staffing, notably unit peer leaders, is clearly useful and addresses major weaknesses in VHA's workforce development strategies.

2) Overall cost to VHA: Is the program worthwhile?
The peer-reviewed scientific literature documents the cost-effectiveness of similar programs, developed outside VHA. These include projects conducted in individual healthcare systems and jointly with NIOSH/CDC. The VISN 8 project similarly showed remarkable benefits, with internal rates of return between 19 and 37 percent. Including costs for additional staffing for peer safety leaders on each shift reduces the internal rate of return to 14 percent. Still, the benefits include more than reduced costs, reduced lost work time, reduced modified duty injuries but also improved patient care quality, patient satisfaction, and improved perceived quality of care. Elsewhere, these programs have also been associated with reduced patient-on-provider of assaults. The program therefore compares favorably with other business investments. In summary, the program has high visibility in the nursing community and serves as a major draw for workforce development.

3) VHA as Employer of Choice / Nursing retention: Can VHA afford not to implement the program?
Safe patient Movement and Handling represents a national and international movement. Although VHA was at the forefront initially, it has not embraced the

program system-wide. Other healthcare systems have begun to initiate such programs, providing them a competitive advantage. As VHA recruits for a constrained pool of eligible employees, it must provide a work environment that compares favorably with that of its competitors. If VHA ignores this national movement, it runs the risk of exacerbating its nursing shortage. In general, VHA cannot afford not to implement the program and the question is simply how best to remain competitive with other systems.

V. CROSSCUTTING ISSUES: A brief description of how the recommended options would influence or impact other elements of the VA organization or other agencies.

- The overall program serves primarily to protect hands-on nursing activities. As such, it is of major interest to the Office of Nursing Services, a co-originator of this Executive Decision Memo. Other services in VHA CO with major interest include Geriatrics-Extended Care, which generates the single largest number of injuries within VHA. The Operations Office represents a major stakeholder in two ways. First, at the planning and rollout stage, 10N (DUSHOM) is responsible for decisions such as mandating staffing, operational planning around program rollouts, and implementation and accountability. Second, as this represents a major safety initiative, possibly the single largest safety initiative considered in VHA, with joint implications for patient safety and occupational safety, 10N has a major stake. The recently appointed ADUSH for Quality and Safety has an interest, even though the program developed independent of that activity with the exception of origination in one of the Patient Safety Centers of Inquiry. The Office of Public Health and Environmental Hazards is involved as VHA's professional and technical resource and proponent for employee and occupational health, safety and prevention policies and programs. Joint development and supervision, therefore, is essential, and some form of joint oversight and tracking will be necessary.

- The Office of Facilities Management will have direction for incorporating patient handling technology into new and existing building designs. Although there is support for this initiative at the VA level, some formalization of the change in construction mandates is needed. Although the American Institute of Architects is considering inclusion of patient handling construction standards, they have not yet been implemented.

- This program is evolving in VHA in parallel to activities within DoD. Such joint implementation is helping both organizations share learning experiences.

VI. STAKEHOLDER INVOLVEMENT: A brief description of VA and VHA stakeholders that would be effected by the options, the process for obtaining input from those stakeholders and the nature of that input.

Once this EDM is completed, stakeholders will be asked to concur with a Safe

Patient Handling directive. The various offices have been involved in developing drafts of this EDM and of the draft directive.

Stakeholders:

- Office of Facilities Management will incorporate patient handling design recommendations for new construction & renovations. OFM will be directly involved in all lifting equipment installations and maintenance/repair of all new equipment.
- Nursing Service will be affected by the changes to the work environment and the way work is performed. Nursing will be responsible for decision-making regarding patient handling equipment and locations for installation or storage. They will be responsible for training staff initially and for ongoing maintenance of the program, as those staff are affected most directly and long before others..
- Rehabilitation Services (PT, OT, etc.) will be affected by the changes to the work environment and the way work is performed. Therapists will be responsible for decision-making regarding patient handling equipment and locations for installation or storage. They may be responsible for training their own staff initially and in an ongoing way, but such training may also occur jointly with nursing.
- Diagnostic Services will be affected by the changes to the work environment and the way work is performed. They will be responsible for decision-making regarding patient handling equipment and locations for installation or storage. Training and maintenance considerations as similar as for Therapies
- Medical Service will be affected by the changes to the work environment and the way work is performed by nursing and other staff. Some areas, such as Geriatrics/Extended Care and Spinal Cord Injury are likely to be affected more strongly than others
- Surgical Service will be affected by the changes to the work environment and the way work is performed.
- Human Resources/Workforce Development may be able to use this program for improved recruitment and retention. In addition, workers compensation programs are likely to benefit from the reduced injury occurrence.

VII. **OPTIONS AND ARGUMENTS:** A listing of the various options for actions that could be taken to address or resolve the issue or situation and the arguments for and against each. ***NOTE:*** *Remember that no action is always one option.*

Options

1. Centralize program as outlined, starting with assessment, then implementation with VACO oversight, (1 VHA CO or field-based FTE, .5 FTE at each facility, money to be rolled out over three rather than six years, data system upgrade for oversight support).
2. Distribute money to VISNs, use data calls at the end of the year to review assignments (.5 FTE at each facility, money to be rolled out over three rather than six years, data system upgrade for oversight support).

3. Status quo – do not do this at all.

Option 1:

1. Use current assigned spending plan ($30 million in 2008, $50,000,000 each year subsequently x 3 years) conduct national assessment through DUSHOM item on existing equipment and resources; identify current and planned construction; conduct local (facility and VISN) assessments; and assign money by year based on ratio of construction and program funding identified in those facilities. Use a VHA CO program office for oversight and support, as currently staffed, but with some additional resources (1 FTE, CO or field-based) to track fiscal and performance issues.

Arguments Pro: This is the most precise way to use these funds efficiently with central oversight and field-directed resources for implementation. Funds will be targeted at real solutions as this option will provide national coordination and standards linked to VISN and facility assessment, targeted allocation of resources and implementation responsibilities placed in the hands of the VISNs and facilities.
Arguments Con: More complex than simply allocating the resources based on some agreed-upon criteria.

Option 2:

1. Use current assigned spending plan ($30 million in 2008, $50,000,000 each year subsequently x 3 years) assign money to VISNs as a function of active beds, with oversight from VHA CO only through annual data calls to VISNs

Arguments Pro: Easiest way to implement the program, relies on the commitment of VISNs and facilities to use the resources to do what they think is needed to meet their needs, easy way to give business credit for prior work, technically straightforward, small administrative burden.

Arguments Con: This option will provide no VHA-wide coordination, standards-setting, support for VISN and field problem solving, roll-up and analysis of VHA-wide implementation and accountability data

Option 3: No action

Arguments Pro: Status quo and no expense of funds which can be used for other purposes.

Arguments Con: 1. Leaves VHA without a solution to one of the signature injuries and major health and safety problems in health care; 2. Provides no solution for an important fiscal problem; 3. Leaves VHA at a competitive disadvantage compared to other healthcare systems that are developing a program; 4. Makes VHA looks like it knows enough to

the recommended action, including the present availability of any needed resources. ***NOTE:*** *This section must have concurrence of the Chief Financial Officer that costs and/or budget effects are reasonable prior to submission to the appropriate NLB Committee(s) including the Executive Committee, and Acting Under Secretary for Health.*

Detailed modeling, published in the peer-reviewed literature, outline internal rates of return, breakeven points, and return on investment calculations. These data, discussed with OMB, led to an agreement that some budgetary assignment was necessary. Cost modeling in early FY 2007 suggested the need for approximately $180,000,000; approximately $12,000,000 represented the I T data system (Work and Ability-Related Injury Management System, a major modification to ASISTS).

Equipment and construction funds: In the first year, an appropriate number of lateral sliding devices will be purchased for all emergency departments, operating rooms, and medical surgical units for national use. In years two through six, equipment and construction funds will be identified and assigned through the national assessment, to be conducted in early fiscal year 08.

Staffing: experience from the VISN and facility rollouts suggests the need for a half-time facility level functional staffing, to manage the program (equipment maintenance logs, supplied pre-ordering, troubleshooting, planning, read training, etc.). In addition, for the initial two-years VISN-level support for program planning and roll out is needed. Although the initial cost estimates for staffing focused on funding unit peer safety leaders (formerly called BIRNs), evaluation of program rollout over the last several months identified a far greater need for these at the facility level.

Return to work at trial: the most effective ways of maintaining long-term work capacity remain controversial. This program rollout will allow systematic comparison of three modes of returning injured nurses back to work (no patient manual handling until pain freedom, work assignments based on a mission subjective impressions, work assignments based on formal comfort and strength in the injured body part)

	Equipment	*Construc-tion funds*	*Staffing*	*Facility reimbursement /payback*	Return to work trial	Inflation adjusted 5 percent per year
2008	*$15,000,000*		*$5,000,000*	*$10,000,000*		30,000,000
2009	*$35,333,3330*	*$8,833,333*	*$5,000,000*		500,000	52,150,000
2010	*$35,333,333*	*$8,833,333*	*$5,000,000*		1,000,000	58,200,000
2011	*$35,333,333*	*$8,833,333*	*$5,000,000*		1,000,000	61,103,000

Since 2003, at least $22 million have been spent on this program. The failure to reimburse "early adopters" for these expenditures is likely to discourage innovative interventions in the future.

XIII. PUBLIC RELATIONS OR MEDIA CONSIDERATIONS OF THE RECOMMENDED OPTION: A discussion of any potential public relations or media problems, opportunities, etc., raised by the recommended action.

VHA developed this program over the last decade, is recognized as the international leader in development, sponsors an annual and now international conference, but has not implemented the program itself nationally. Two congressional inquiries and queries in the oversight committee have pursued the program. Nursing organizations (ANA) and OSHA look to VHA for leadership. Design and architecture organizations look to VHA for leadership (AIA). DoD looks to VHA for leadership. One aspect of such leadership is to make VHA a more attractive place to work. A second element is to retain credibility: failure to implement our own program nationally raises questions about our commitment to remaining an employer of choice and to remaining a leader in the overlap of patient and employee safety.

XIV. CONGRESSIONAL OR OTHER PUBLIC OFFICIAL OR AGENCY CONSIDERATIONS OF THE RECOMMENDED OPTION: A discussion of any Congressional and/or other public official or agency notification or involvement considerations raised by the recommended action.

As above:
1. Inquiries from Oversight - Senator Murray and staff from the House Veterans Affairs Committee Subcommittee on Oversight have inquired about this program.

2. In addition, VHA has worked with the Department of Defense to develop rollout plans.

3. VHA has an opportunity to take credit publicly for developing a national program

XV. IMPLEMENTATION: A brief discussion of the timing, sequence and implementation of the recommended action, including major implementation milestones. The proposed lead office or lead person and support offices should be clearly identified. Any anticipated obstacles should be noted.

Program implementation should be led by the Office of Public Health and Environmental Hazards, jointly with the Office of Nursing Services, and the Office of Patient Care Services supporting the Operations and Management Office

Sequencing of Activities at VHACO Level:

- Generation of estimated funding needs from medical program and construction funding sources
    - Facility survey of existing equipment (#s, types, condition, use, reasons for lack of use, sling types/use)
    - Facility survey of clinical unit/area information (# beds, room configurations, patient population characteristics, dependency) to

determine facility vs program funding
    - Calculation of estimate of equipment requirements for VHA facilities and cost estimate for this equipment by funding source
    - List new VHA construction projects, facility NRM projects

- Assist facilities in program implementation
    - Provide Implementation Guide to facilities
    - Identify VISN Coordinators
    - Train Facility SPHM Champions
    - Assist facilities/VISNs in conducting equipment needs assessments

Sequencing at VISN Level

- Identification of VISN coordinator
- Needs identification

Sequencing of Activities at Facility Level:

Phase 1:

- Formation of SPHM team/committee
- Designation/Training of Facility Champion
- Selection/Training of Unit Peer Leaders
- Staff Awareness Training

Phase 2:

- Ergonomic evaluations/site visits of clinical units/areas
- Generation of patient handling equipment recommendations

Phase 3

- Phase-in of patient handling equipment
    - Staff selection of preferred vendor/s for each type of equipment
    - For Ceiling Lifts
        - Nursing designation of rooms
        - Vendor/s site visit for 1) evaluation of issues surrounding building construction and lift installation and 2) submission of cost proposal
        - Engineering evaluation of structural constraints
    - Equipment Purchase

Phase 4

- Equipment Installation/Introduction
- Training & Follow-up Training

CONCUR/NON –CONCUR

_____

Gerald M. Cross, MD, FAAFP
Principal Deputy Under Secretary for Health

APPROVE/DISAPPROVE

Michael J. Kussman

Michael J. Kussman, MD, MS, MACP
Under Secretary for Health (10)

7/1/08
Date

ATTACHMENT 1: PATIENT TRANSFER INITIATIVE DOCUMENT May 2007

PATIENT MOVEMENT AND HANDLING INJURIES: AN ASSESSMENT OF CURRENT STATUS, COSTS, AND A BUSINESS CASE ANALYSIS

Background:

The Veterans Health Administration (VHA) represents the largest integrated healthcare delivery system in North America, with over 5.5 million unique patients seen each year, over 215,000 healthcare workers, and a $34 billion budget. It employs almost 50,000 nursing personnel, including nursing assistants, licensed practical nurses, registered nurses, and nurse practitioners. The VA is not immune from the nationwide nursing shortage that threatens care delivery. The VHA reports approximately 30,000 injuries every year though only about 5000 of these result in "lost work time". Figure 1 presents the frequencies of all injuries reported in ASISTS ("Automated Safety Incident Surveillance and Tracking System"), VHA's in-house injury management system, by fiscal year. Of the approximately 190,000 injuries in the national data base, 11.8% resulted from handling patients; that figure has remained relatively constant since 2001. Nursing staff (RN, LPN, NA) experienced 77.2% of injuries associated with the handling of patients, and over 25% occurred in nursing home care, 35% in medical surgical, 10% in other in-patient (including spinal cord) units, 8.9% in intensive care, 4.2% in imaging departments, and 3% in emergency rooms. The short term effects are time away from work for injured personnel and medical costs while the long term consequences are early retirement and disability and dissatisfaction with working conditions. At present the VHA is precluded from merging workers compensation cost data maintained by the Department of Labor with its injury data and therefore is unable to provide a precise national cost figure.

Rates of injury among staff are poorly understood. Data from the Bureau of Labor Statistics suggest that (Figure 2) health care worker injury rates have remained higher than those in occupations commonly viewed as dangerous such as agriculture and construction. Bureau of Labor Statistics data suggest that the rate of new injuries in healthcare in 2005 was 5.9 / 100 workers (200,000 hours

worked) and the rate of lost time or restricted duty days 1.5 / 100 workers or 200,000 hours worked, respectively. More detailed analyses of VHA data (Table 1) suggests overall injury rates and patient transfer injury rates for nursing staff are substantially higher than those reported to the Department of Labor, possibly because the VHA has focused efforts towards increased reporting for some years. Discussions with other large healthcare systems including Kaiser and Hospital Corporation of America that do not publish their rates, suggest that reporting incentives represent the primary determinant of recorded rates.

For the VHA, male injury rates appear substantially lower than rates among women. Rates are higher among nursing assistants and licensed practical nurses than among registered nurses. This is consistent with the fact that these nursing staff generally perform more patient handling activities, and many have second jobs with similar tasks outside VHA. Rates appear to decline with age and then rise again (Figure 3). This differs from the usual pattern of injuries reported, with an increase at older ages. Such "inverted" patterns are often interpreted as evidence of a survivor effect. In addition, examining variability in rates suggested that some portion of the variance in both overall (35%) and patient transfer (25%) injuries appeared related to nurse staffing ratios.

Within the VHA, additional data suggest that up to 25% of nurses experience at least one such injury per year that leads to changes in work assignments but are not reported approximately 50% of the time (Siddharthan 2006). This effectively doubles the best estimate of actual rates of occurrence.

The Patient Safety Center at the James A. Haley Veterans Medical Center in Tampa, Florida developed a safe patient movement and handling program as a part of a research initiative that has become increasingly accepted as the national standard for safe handling of patients by nursing and other direct care providers. It served as the basis of the OSHA Nursing Home guidelines and the American Nurses' Association "Handle with Care" program. The research project in the VISN 8 serving veterans in Florida and South Georgia was successful (Nelson 2006) and showed markedly increased satisfaction among patients and staff, decreased turnover among staff, and decreased number and severity of injuries among patient handlers. As well, nurses stated that patient quality of care was improved. A business case analysis of the project suggested a pay-back of the capital investment in 4.13 years (Siddharthan 2006). Over the last several years, VHA CO has supported the implementation of this program around the country on a voluntary basis with support from a VA commitment of a half time FTE to the project. VHA initially sponsored and now supports (with the Centers for Disease Control and others) an annual implementation conference on safe patient movement and handling.

National initiatives:
Nationally the environment is changing as well. Since 2005, several States have promulgated laws on safe patient movement and handling; Texas, Washington,

and Rhode Island being the best known. The law in Washington was justified through cost benefit calculations described later. Two States have introduced insurance initiatives (California and Oregon). The Agency for Healthcare Research and Quality has begun looking at staffing ratios and will include safe patient handling as an essential element of its Nursing Safety Manual, to be published later this calendar year. A Federal legislative proposal (Conyers-Michigan) was introduced late in the last legislative session but failed because the time expired. It was re-introduced this session. The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) has begun inquiries into how best to formulate a standard. The American Institute of Architects (AIA) issuers of the AIA Guidelines for Hospital Construction, published jointly with JCAHO, has begun work on hospital construction standards revisions that include technology for patient handling. Starting in April 2007 the nursing licensure examination will include test questions on ergonomic principles, an indication of the importance and acceptance of safe patient handling curriculum in nursing.

Cost of Technology to Aid in Moving Patients

All areas of a healthcare facility where patient handling occurs will benefit from patient handling technology, including nursing, therapy and radiology departments. In decreasing order of hazard, clinical units that benefit from such programs include spinal cord injury (SCIU), nursing home care (NHCU), intensive care units (ICU), and medical surgical units, depending on the proportion of fully and partially dependent patients in these units.

In order to provide a safe environment of care for both staff and patients, provision of lifting equipment is critical. In addition, other patient handling technology including lateral transfer devices, sit to stand lifts, motorized stretchers/beds, and others are also necessary. In addition, although there are different types of patient lifting equipment available, over the last several years widespread consensus evolved that ceiling lifts represent a better, safer, and more effective long-term solution than portable devices. Focus groups from a follow-up study conducted three years after the original research in participating VISN 8 units confirmed this, although where ceiling lifts are not feasible, portable/movable equipment represent a reasonable alternative.

Considerations for appropriate technology interventions include local variations in staff injury causes (which depend in part on mobility and procedures), locations of injury (Geriatrics /Extended Care, Spinal Cord, Medical Surgical, etc.), unit patient population characteristics, and local planning construction and renovation. Based on internal reviews, costs for equipment range from $6,000 to $8,000 per bed. Between 2003 and 2005 VHA facilities spent a total of $16,600,000 and in FY 2006 alone another $6,100,000 on patient handling equipment. That money was generally re-allocated from other infrastructure projects such as mechanical engineering.

Long-term Program Outcomes

Formal review of workers compensation data for the facilities that implemented this program does not support a major reduction in compensation costs. Interviews with focus groups suggested two reasons for this. First, staff turnover led to a decline in knowledge and skills so that the effect from the implementation simply is not sustained without some more formal program element. Where unit peer leaders called Back Injury Resource Nurses (BIRNs) persisted and promoted safe patient handling techniques, interviews suggested that injury rates remained lower. (The Department of Labor has instructed the VHA that combining the workers compensation data at the individual level with the injury management data at the individual level represents a Privacy Act violation and we are therefore unable to undertake that formal assessment.) Second, as patient transfer injuries result in part from long-term strain on the musculo-skeletal system, longer implementation, in a sustained fashion, and longer follow-up may be needed to document success in detail.

The VISN 8 follow-up study conducted three years later in units that participated in the original research found injuries from lifting patients were low compared to other causes. 41% of the patient handling injuries were due to unanticipated events such patients' slips/trips/falls, making sudden movements, and striking the caregiver as well as caregivers' slips/trips/falls and being caught/in/on/ between/under something. Twenty-one percent were caused by pushing and pulling, activities that have few good risk control measures, and only 15% were caused by lifting and moving patients, and most of these without use of lifting equipment.

Questions on Return to Work

Where nurses experience injuries, several approaches support return to work, but major scientific questions remain about long-term implications. The three alternatives available to nursing supervisors are: 1) keep the injured nurse off work until full recovery at any nursing job, 2) assign to work but restrict from any manual handling, and 3) assign manual handling based on estimated work loads and functional capacity. The first represents nursing practice that best protects nurses' health. However, it results in far more lost work days and also makes gradual reintegration into the work place more difficult and may therefore lead to more iatrogenic disability. The second generates the same number of modified duty days as option 3 as option 3 under the new OSHA record-keeping standard for Federal agencies and captures these as restricted days in the "Days away, Restricted Time". The second approach also receives some support from a single research project which suggested that complete recovery occurs more rapidly if no physical loading occurs until pain has completely resolved. Although the third alternative is commonly used, it has no scientific basis and compliance is problematic. Although the forces required for nursing tasks are defined, these forces alone do not translate to defining the strength requirements, over short or long periods of time, needed to perform tasks. Actual force requirements for patient movement and handling exist but there is no way of interpreting these in deciding work measures for injured nurses. A discussion on "functional capacity

evaluation" identifies that none of the current models have either scientific validity nor do they actually represent work capacity over a sustained work day.

Program Cost Considerations
VHA queried facilities and examined VSSC data to estimate average daily census on units of various risk, percent dependent patients on those units, recent (2004-6) and planned (2007) expenditures, and likely costs to implement the technology portions of this program. As ceiling lift use has spread and replaced other forms of equipment, cost distributions have shifted. At present, a reasonable estimate of the cost of purchasing appropriate technology for all VHA facilities is approximately 112 to 150 million dollars. Figure 4 presents costs by clinical area using estimates varying from $6,000 / bed (ceiling lift alone), to $8,000 / bed (lifts and mix of other equipment).

Implementation will also require continuation of a national program coordinator (currently funded from 13 budget) and support for VISN-based and national conference attendance ($2,000,000 over next three years).

Evaluation of return to work programs, comparing the three aforementioned approaches to managing injured nurses in a multi-center program with equipment, appropriate staffing support, and evaluation, will cost $4,000,000.

Business case considerations for this proposal were developed and published for "worst case" scenarios (row 1 in Table 2). Addition of the under-reporting rate effects (doubling the rate of injuries and doubling the benefits) leads to a markedly improved performance. Still, even the most conservative assumptions suggest that this proposal will pay for itself and compares favorably with other infrastructure investments in the VHA. Calculations that include dedicated funding of .1 FTE per unit for patient handling nurse peer leaders suggest a moderate change in cost considerations but the program still compares favorably with other investments

Funding Request for the Program:

Equipment:	$150,001,000
VHA CO Staff support	$ 480,000 (160,000 / year x 3 years)
Back injury resource nurses leader per unit for 10 yrs)	$ 16,000,000 (.1 FTE for nurse peer per hospital
Program roll-out	$ 500,000 over 2 years
Intervention trial	$ 2,000,000
Total	$168,981,000

Figure 1: Injuries by Fiscal Year

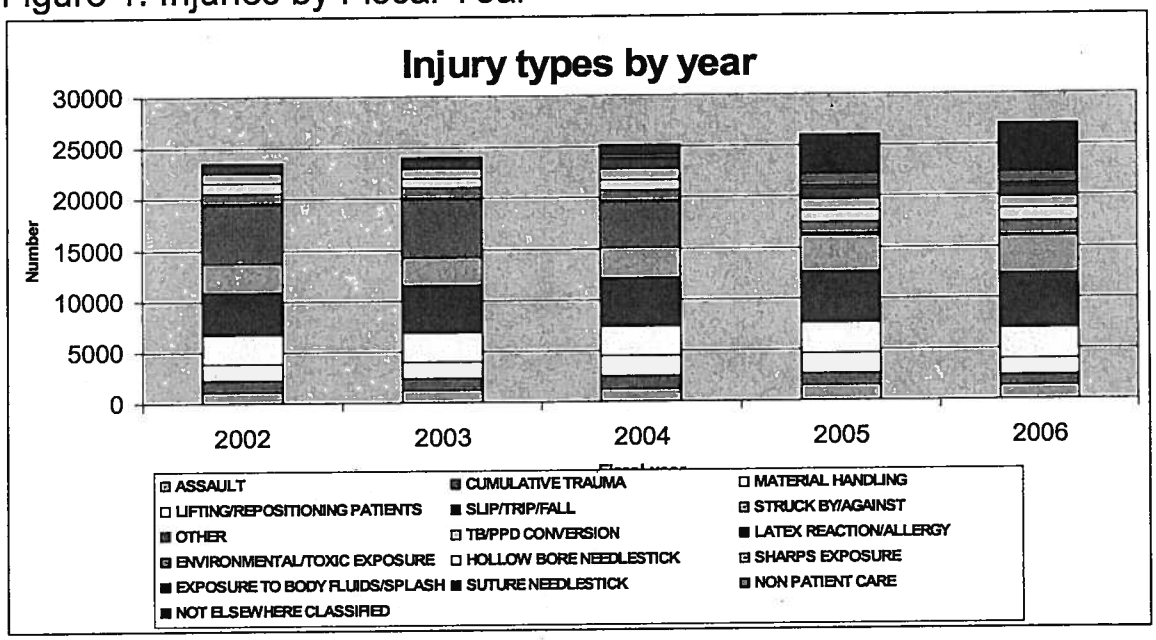

Figure 2: Injury rates in construction, agriculture, and healthcare over time

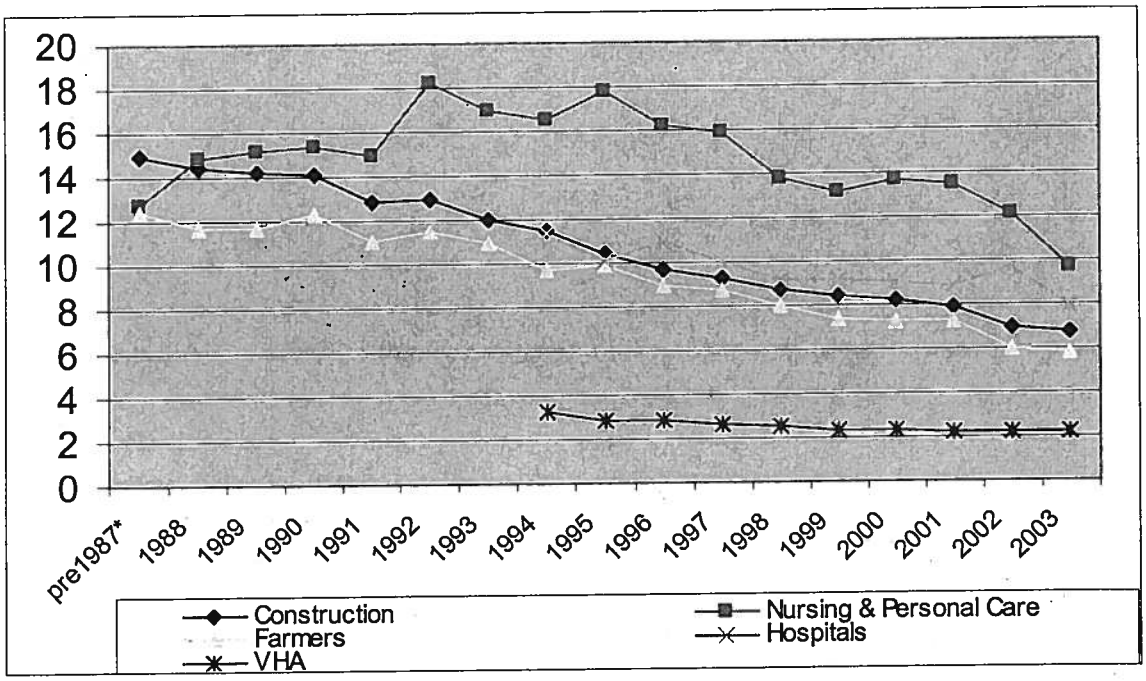

Figure 3: Rates of lost time injury by 10-year age group

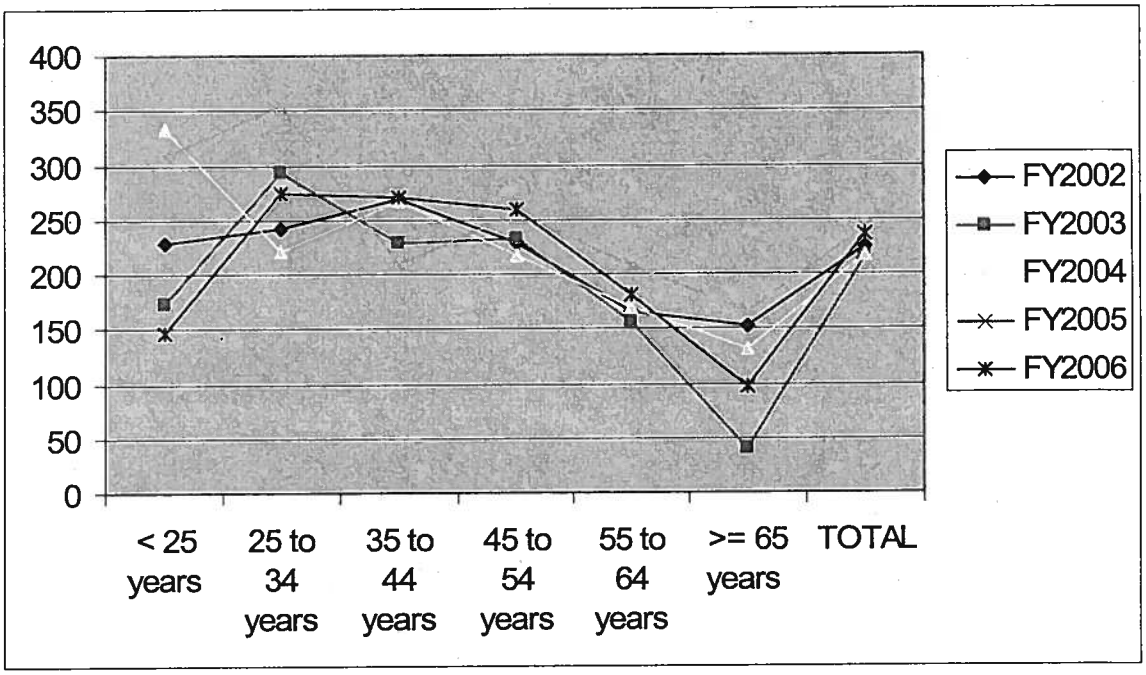

Table 1: Injury Rates for the VHA (2002-2006)

MALE (INCIDENCE RATES)	FISCAL YEAR				
PTI (Patient Transfer Injury) CASES ONLY (ASISTS)*	2002	2003	2004	2005	2006
ALL OCCUPATIONS	8.56	8.02	7.19	7.91	7.95
NURSE	26.93	25.94	22.76	29.09	33.72
PRACTICAL NURSE	46.76	36.16	31.30	40.05	48.49
NURSING ASSISTANT	49.63	58.60	56.60	68.06	63.42
MALE (INCIDENCE RATES)	FISCAL YEAR				
ALL ASISTS CASES*	2002	2003	2004	2005	2006
ALL OCCUPATIONS	99.86	94.82	96.24	98.39	99.25
NURSE	131.56	123.31	114.51	121.30	129.70
PRACTICAL NURSE	167.20	152.34	165.05	172.02	175.11
NURSING ASSISTANT	224.92	215.67	216.84	241.35	235.94
FEMALE (INCIDENCE RATES)	FISCAL YEAR				
PTI CASES ONLY (ASISTS)*	2002	2003	2004	2005	2006
ALL OCCUPATIONS	18.62	17.36	17.00	18.01	17.81
NURSE	26.88	23.88	24.96	27.70	28.65
PRACTICAL NURSE	52.12	46.38	46.23	49.10	51.31
NURSING ASSISTANT	83.27	88.24	83.89	95.26	91.40
FEMALE (INCIDENCE RATES)	FISCAL YEAR				
ALL ASISTS CASES*	2002	2003	2004	2005	2006
ALL OCCUPATIONS	128.76	125.18	127.25	130.34	130.67
NURSE	140.06	137.08	137.47	145.11	150.83
PRACTICAL NURSE	227.17	212.51	217.84	221.42	225.34
NURSING ASSISTANT	294.69	292.71	305.88	321.33	323.11

* ASISTS –VHA Employee Injury database

Figure 4: Cost Estimates of Technology

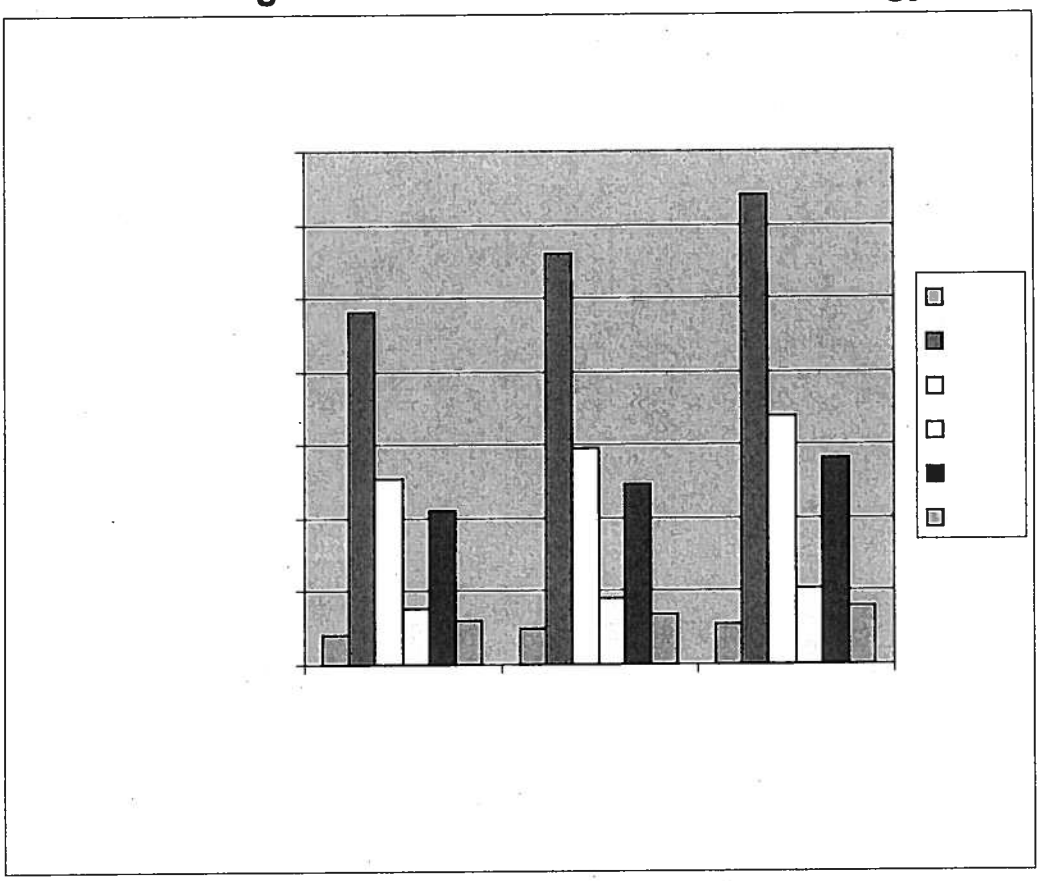

Table 2: VHA Business Case Considerations

		Payback period	Net Present Value	Internal Rate of Return
Conservative scenario	Documented costs and benefits in VISN 8	4.13 yrs	$1.4M	20%
More likely scenario	Doubling costs (medical, wage loss) because of under-reporting (2001 AES) and 10% retraining / administrative costs	3.39yrs	$2.0 M	27%
More Likely Scenario with a Back Injury Resource Nurse at .1FTE	Doubling costs (medical, wage loss) because of under-reporting (2001 AES) and 10% retraining / administrative costs and .1 FTE BIRN per high-risk unit over 10 years	3.50yrs	$1.19M	25%
High Cost Scenario	Medical and wage costs tripled (common private sector assumption)	2.71yrs	$2.6M	33%

Conservative scenario: As presented in the final report of the Safe Patient Handling and Movement Project and as cited in the 'A Business Case for Patient Care Ergonomic Interventions'.

More Likely Scenario: Assumptions

a) The cost of medical care is doubled because of 50% underreported injuries.
b) Replacement of injured personnel with 10% training costs.

More Likely Scenario (with monitoring by a BIRN @ .1FTE)

Same as the More likely Scenario except we have a Back Injury Resource Nurse allocate 10 % of her time to facilitate training and coaching (@60K + 25% fringe)

High Cost Scenario: Assumptions (same as the most likely scenario except the cost of medical care is tripled)

Staffing-Up: inclusion of a .1 FTEE on each unit over ten years

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Nelson, A., Matz, M., Chen, F., Siddharthan, K., Lloyd, J., Fragala, G. Development and evaluation of a multifaceted ergonomics program to prevent injuries associated with patient handling tasks. *Int J Nurs Stud*. 2006 Aug;43(6):717-33. Epub 2005 Oct 25.

Siddharthan K, Nelson A, Wiesenborn G. A business case for patient care ergonomic interventions. *Nurs Adm Q*. 2005 Jan-Mar;29(1):63-71

Siddharthan K, Hodgson M, Rosenberg D, Haiduven D, Nelson A. Under-reporting of work-related musculoskeletal disorders in the Veterans Administration. *Int J Health Care Qual Assur Inc Leadersh Health Serv*. 2006;19(6-7):463-76.

Matz, M. (2007) Analysis of VA Patient Handling and Movement Injuries and Preventive Programs. Internal VHA report to Director, VHA, Occupational Health Program.

ATTACHMENT 2: VISN 1 Executive Decision Memo 2003

VISN 1
VA NEW ENGLAND HEALTHCARE SYSTEM

EXECUTIVE DECISION MEMO

TO: Network Director (10N1)

THROUGH: Executive Leadership Board (ELB)
Clinical Leadership Board (CLB)

FROM: Nurse Executive Leadership Council

SUBJECT: VISN Wide No Lift Policy

PREPARED BY: Margo Veazey RN MSN

DATE: May 12, 2004

For Further Information Contact: Margo Veazey RN MSN

Action Requested: ____x__ Request for approval
_____ Request for discussion or further review
_____ For Your Information
_____ Other (specify)

STATEMENT OF ISSUE: A concise statement of the issue, circumstance, or situation that needs to be addressed or resolved.

Research is continuing to show the impact of lifting and positioning patients on the injury rate for nursing and other health care personnel. The effect of lifting and positioning can be cumulative over the years resulting in the gradual development of a variety of disorders know as musculoskeletal disorders or MSDs. The MSDs include conditions such as low back pain, sciatica, rotator cuff injuries, epicondylitis and carpal tunnel syndrome. Nursing represented 30% of all injured VHA workers in 2000 and approximately 31% of injuries to nurses consisted of upper extremity injuries, 25.5% back injuries and 19.1%lower extremity injuries. Most of these injuries were related to patient transfer and repositioning tasks. VISN 1 nursing staff experienced **350** lifting and positioning

injuries in FY02 and FY03. There was over 300 staff on light duty from these types of injuries over the two-year period.

RECOMMENDATION: A succinct statement of what action is being recommended to address or resolve the issue.

The VISN 1 Nurse Executive Leadership Council is proposing that VISN 1 phase in a no lift or minimal lift policy over the next 2-3 years. This will involve the purchase of lifting equipment for each nursing unit at a cost ranging from $$5000 to $40,000 per unit. The phasing would start with the units with the highest number of lifting and positioning injuries. The cost would be $587,000 per year for a total of $1,760,000 over a three-year period.

APPROVED / DISAPPROVED

_____

Jeannette A. Chirico-Post, MD
Network Director, VISN 1

I. STATEMENT OF ISSUE: A concise statement of the issue, circumstance, or situation that needs to be addressed or resolved (same as page 1).

Research is continuing to show the impact of lifting and positioning patients on the injury rate for nursing and other health care personnel. The effect of lifting and positioning can be cumulative over the years resulting in the gradual development of a variety of disorders know as musculoskeletal disorders or MSDs. The MSDs include conditions such as low back pain, sciatica, rotator cuff injuries, epicondylitis and carpal tunnel syndrome. Nursing injuries represented 30% of all injured VHA workers in 2000 and approximately 31% of injuries to nurses consisted of upper extremity injuries, 25.5% back injuries and 19.1%lower extremity injuries. Most of these injuries were related to patient transfer and repositioning tasks. VISN 1 nursing staff experienced **350** lifting in FY02 and FY03. There was over 300 staff on light duty from these types of injuries over the two-year period.

RECOMMENDATION: A succinct statement of what action is being recommended to address or resolve the issue.

The VISN 1 Nurse Executive Leadership Council is proposing that VISN 1 phase in a no-lift or minimal lift policy over the next 2-3 years. This will involve the purchase of lifting equipment for each nursing unit at an approximate cost of $5,000 to $40,000 per unit. The phasing would start with the units with the highest number of lifting and positioning injuries. The units with the highest number of injuries in order of most occurrences are Nursing Home Care Units, Medical Surgical Units and Intensive Care Units.

Has current process been flowcharted? Yes___ No___ Not Required_x

Has new outcome been identified? Yes___ No___ Not Required_x_

Strategic Plan/AOP Parameters Identified Yes___ No___ Not Required_X__

II. SUMMARY OF FACTS/BACKGROUND: A succinct discussion or review of the relevant facts or circumstances bearing on the issue (one to a few paragraphs).

The national nursing shortage continues to grow. In addition, 35 percent of current VA nurses are eligible to retire by 2005. The average age of the national nursing workforce is 45.2 years while the average age of the VA nursing workforce is 46 years. Currently there are approximately 126,000 nursing positions unfilled in hospitals across America. It is projected by 2020, the United States RN workforce will be 20% below RN workforce requirements (Buerhaus, Staiger, & Auerback, 2000a).

Research is continuing to show the impact of lifting and positioning patients on the injury rate for nursing and other health care personnel. The effect of lifting and positioning can either present as an acute event or be cumulative over the years resulting in the gradual development of a variety of disorders know as musculoskeletal disorders or MSDs. The MSDs include conditions such as low back pain, sciatica, rotator cuff injuries, epicondylitis and carpal tunnel syndrome. The recognized national health problem of increasing incidence of obesity has further increased the risk of lifting injuries to nurses who now frequently encounter patients that are morbidly overweight. Nurses have one of the highest incidences of work related back problems of all occupations. It has been estimated that 12% of nurses leave the profession each year due to chronic acute back injuries and pain. Nursing injuries represented 30% of all injured VHA workers in 2000. Approximately 31% of injuries to VHA nurses consisted of upper extremity injuries, 25.5% were back injuries and 19.1% were lower extremity injuries. Most of these injuries were related to patient transfer and repositioning tasks. The average age of our nursing staff makes them particularly vulnerable to these types of injuries.

VISN 1 nursing staff experienced **350** lifting and positioning injuries and **17** material handling injuries in FY02 and FY03. There was over 300 staff on some type of light duty from these types of injuries over the two-year period. Actual data on the number of light duty days per individual could not be calculated. The total number of lost time days was 484 days (not including data from Connecticut).

It has been the practice for many years to deal with the problem of MSD injuries occurring in clinical staff by teaching "proper body mechanics". It has now been realized that body mechanics training was based on research regarding the lifting of fixed objects and was not generalizable to the handling of patients. Patient's weight is not evenly distributed and the mass is asymmetric, bulky and cannot be held close to the body. Crowded patient rooms with equipment and furniture may prevent the nurses from lifting properly. Patients can be unpredictable, losing their balance or being combative. Staff are many times lifting laterally vs. vertically. A NIOSH Lifting Equation sets the maximum recommended weight limit at 51 pounds under ideal conditions. This equation takes into account compressive forces on the spine, but not the shearing forces that occur frequently in nursing practice when lateral movement is done.

The American Nurses Association has published a position statement titled *Elimination of Manual Patient Handling to Prevent Work-Related Musculoskeletal Disorders* which supports actions and policies that result in the elimination of manual patient lifting and handling (lifting, transferring and repositioning of patients) by nursing staff. Research conducted by the Department of Veterans Affairs at the Patient Safety Center of Inquiry (Dr. Audrey Nelson and her team at Tampa, Fl,) and Department of Defense has led to a recently published Patient

Care Ergonomics Resource Guide: Safe Patient Handling and Movement, also recommends that facilities initiate minimal or no lift policies in patient care areas. Research has shown that engineering controls are the best line of defense to prevent MSD injuries. There are numerous choices of specialized equipment now available for purchase. Purchases **must be individualized** to each nursing unit. Blanket purchases of lifting equipment will not necessarily result in the desired outcome. The equipment must be selected based on patient characteristics, physical environment and staff acceptance. A methodology has been developed to assess an individual nursing unit and select the appropriate equipment based on the above factors. Dr. Nelson's group cites research that shows that staff buy-in and customization to the unit is essential to insure that the staff uses the equipment. A vital component of the planning for a no lift policy on a nursing unit is having the nursing staff involved in the policy development and selection of the lifting equipment. Many private sector hospitals and nursing homes have drastically reduced these types of injuries by the initiation of this type of policy and the purchase of appropriate lifting equipment.

III. SYNOPSIS OF SIGNIFICANT RELATED ISSUES: A statement of any related or peripheral issues not covered in II that also should be considered (one to a few paragraphs).

The Nurse Executive Leadership Council wanted to collect the following data for FY02 and FY03:

- The total number of lifting and positioning injuries in nursing for FY02 and FY03 for each type of nursing unit.

- The number of light duty days and lost time days in nursing for FY02 and FY03 for each type of nursing unit

- The number of medical disability or disability retirements due to lifting and positioning injuries.

It was difficult to get the numbers of lifting and positioning injuries by type of unit (i.e. nursing home, ICU, etc) from all facilities. VA Boston Healthcare System was unable to provide unit specific data but could give us total lifting and positioning injuries for the time period requested. VA Connecticut Healthcare System and Boston could not provide data on number of light duty days or the number of lost time days associated with each injury, but Boston was able to provide the number of staff presently on light duty. The other facilities in VISN 1 were able to provide the requested data. It would be of value to be able to provide aggregate injury data by type of nursing unit at all facilities.

IV. CRITERIA FOR DECISION MAKING: A listing of all significant criteria upon which the options for addressing the issue will be judged pro or con. This section should precisely specify the basis for making the decision.

Nursing units with the highest rates of injury should be outfitted first with this equipment. Each facility should have a minimum of one unit selected for the equipment.

V. STAKEHOLDER INVOLVEMENT: A brief description of who was worked with (i.e., internal and external stakeholders) and what process was used to develop the decision criteria and options.

Stakeholder involvement will be crucial in the selection of the lifting equipment and aids. The assessment of each nursing unit's lifting needs and the selection of equipment will involve staff on those units. The Nurse Executive Leadership Council, which has union representation, has developed this decision memo.

Have patient/customer/market/supplier/partner requirements been identified?
Yes_x_ No___

VI. OPTIONS AND ARGUMENTS: A listing of the various options for actions that could be taken to address or resolve the issue or situation and the arguments for and against each. (Remember that no action is always one option.)

Option 1: Assess all the nursing units at each facility in VISN 1 and provide the appropriate equipment this fiscal year.

Arguments Pro:
* Will experience a significant reduction in nursing staff injuries

Arguments Con:
* The cost may be not be manageable when taking into consideration other VISN 1 equipment needs in such areas as radiology, operating room and endoscopy.

ACTION	YES/NO	NOT REQUIRED	COMMENTS

Operational requirements identified	Yes		Will use the Audrey Nelson Criteria for assessing unit needs and equipment selection. Staff input at the nursing unit level will be paramount in the process.
Performance measures identified	Yes		Will monitor lifting and positioning injuries in nursing staff after equipment purchased and installed
Comparisons/Benchmarks identified	Yes		Will benchmark to VISN 1 data prior to the implementation of the program and to national data on lifting and positioning injuries in nursing staff
Any "Transfer of Learning" from related processes	No		
New technologies	Yes		Some of the lifting equipment available is new technology
Potential efficiencies/savings identified	Yes		Lost times claim rate and dollars spent on OWCP should decrease significantly as all nursing units go "no lift" during the same time period.
Proposal meets:	Yes		
Mission/Vision/Values	Yes		
Key Drivers	Yes		
Performance requirements	Yes		
Business standards	Yes		
Baseline measures established	Yes		
Piloted	No		
New "Lessons Learned"	No		
How can design/improvement process be improved?	Not applicable		

Option 2: Phase in the equipment over a period of three years based on a plan of outfitting first the units with the highest number of lifting injuries.
Arguments Pro:

- Will spread the cost of the equipment over a longer period of time and we will outfit our high-risk units first.

Arguments Con:

- Will still have significant staff injuries on units where we have not implemented the equipment.

ACTION	YES/NO	NOT REQUIRED	COMMENTS
Operational requirements identified	Same as above		
Performance measures identified	Same as above		
Comparisons/Benchmarks identified	Same as above		
Any "Transfer of Learning" from related processes	Same as above		
New technologies	Same as above		
Potential efficiencies/savings identified	Yes		Will be same savings as identified in option 1, but will be spread over several years. May continue to have significant injuries on units waiting to be outfitted.
Proposal meets: Mission/Vision/Values	Same as above		
Key Drivers	Same as above		
Performance requirements	Same as above		
Business standards	Same as above		
	Same as above		
	Same as above		
Baseline measures established	Same as above		
Piloted	Same as above		

New "Lessons Learned"	Same as above		
How can design/improvement process be improved?	Same as above		

VII. RECOMMENDED OPTION: A succinct statement of what action is being recommended to address or resolve the issue (same as page 1).

Option 2--The VISN 1 Nurse Executive Leadership Council is proposing that VISN 1 phase in a no lift or minimal lift policy over the next 2-3 years. This will involve the purchase of lifting equipment for each nursing unit at a cost of per unit. The phasing would start with the units with the highest number of lifting and positioning injuries.

VIII. DISSENTING OPINIONS REGARDING RECOMMENDED OPTION: When the recommended option is the result of a committee or group process, then major dissenting views or minority opinion should be noted as well.

There were no dissenting opinions voiced by any member of the Nurse Executive Leadership Council.

IX. EFFECT OF RECOMMENDED OPTION ON EXISTING PROGRAMS AND/OR FACILITIES: An assessment of the effect of the recommended action on existing programs or facilities.

There will be a reduction in the number of nursing injuries related to lifting and positioning of patients. We will conserve our limited nursing resources by reducing lost time and permanent injury/disability. This will ease the impact of the nursing shortage in all our clinical programs by making more nursing staff available.

X. LEGAL OR LEGISLATIVE CONSIDERATIONS OF THE RECOMMENDED OPTION: A brief discussion of any legal or legislative issues, concerns, or considerations stemming from the recommended action.

None

XI. BUDGET OR FINANCIAL CONSIDERATIONS OF THE RECOMMENDED OPTION: A discussion of any costs and/or any financial or budgetary effects of the recommended action, including the present availability of any needed resources.

ACTION	YES/NO	NOT REQUIRED	COMMENTS
Costs/budget	Yes		Average cost per nursing unit will range from $5,000 to $40,000 (see calculations below)
Workload impact	Yes		Will not alter workload
Space/construction	Yes		Will need space for storage of some of the equipment
Education/training	Yes		Staff education on the use of the equipment
Human resources	Yes		Will need Engineering for some instillation if use ceiling tracks
Supplies/equipment	Yes		May have to replace lift belts/slings at periodic intervals
Support Services	Yes		Engineering for maintenance and repair

The cost per unit will depend on the equipment they may already have in place as well as the assessment of equipment needs based on patient population and characteristics, unit geography, size of unit and staff acceptance. At VA CT an assessment of nursing units was done utilizing Dr. Nelson's methodology and a cost range from $400 to $40,000 to outfit each type of unit was identified. At VA CT the following categories of units were evaluated and the costs for each type of unit are below:

LTC	35 beds	$40,000
M/S unit	34 beds	$28,000
Stepdown unit	12 beds	$34,000
OR/PACU	6 rooms	$$15,600
ICU	10 beds	$27,000
Special Procedure Areas		$400
ER		$$6,000
Dialysis		$4596
APU		$4696
Psych		$5,000

The total cost for providing equipment for VA CT was determined by multiplying the type of unit cost by the number of those units and the total for the facility was **$274,651.** Using the approximate number of each type of unit in the VISN, the total cost to provide equipment for each nursing unit in VISN 1 would be approximately **$1,760,000.** By spreading the purchases over a three-year period, the yearly cost would be approximately **$587,000** each year.

XII. PUBLIC RELATIONS OR MEDIA CONSIDERATIONS OF THE RECOMMENDED OPTION: A discussion of any potential public relations or media problems, opportunities, etc., raised by the recommended action.

A public relations opportunity may be created as we could advertise to prospective nursing candidates that we have a no lift policy and the appropriate equipment and thus enhance recruitment of new staff that desire working in a safe environment.

XIII. CONGRESSIONAL OR OTHER PUBLIC OFFICIAL OR AGENCY CONSIDERATIONS OF THE RECOMMENDED OPTION: A discussion of any Congressional and/or other public official/agency notification or involvement considerations raised by the recommended action.

None

XIV. IMPLEMENTATION: A brief discussion of the timing, sequence, and implementation of the recommended action, including major implementation milestones. The proposed lead office or lead person and support offices should be clearly identified. Likewise, any anticipated obstacles should be noted.

Immediately start the assessment of 2 units at each facility (those with the highest injury rates) and plan equipment purchases. The number of units to be outfitted would depend on available funds. Having more that one unit at each facility assessed and needs identified would allow for quick purchase of more equipment if there are end of year drop funds available.

The following criteria should be considered when deciding the priority of purchases:

- Implement at each facility on one individual unit with the highest rate of staff injury related to lifting and positioning

- Purchase equipment based on an in-depth assessment of the needs of each unit. Nursing staff on the each unit must have extensive involvement in the assessment of needs and the selection of equipment. Blanket purchases should only be made when several units define a specific piece of equipment needed.

- Continue to implement on units based on the number of injuries—from highest to lowest depending on available equipment dollars.

- Plan for purchasing the appropriate lifting equipment any time a new nursing unit is constructed or with any renovations of patient care areas.

The goal ideally should be to have all inpatient-nursing units have the appropriate equipment to fully implement the VISN 1 no lift policy by the year 2007.

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[i] Nelson,, A., Lloyd, J., Gross, & Menzel, N. (2001) Redesigning Patient Handling Tasks to Prevent Nursing Back Injuries

[ii] Waters, T. (2007) When is it safe to manually lift a patient? *American Journal of Nursing,* 107(8):53-59.

[iii] Hignett, S., Crumpton, E., Ruszala, S., Alexander, P., Fray, M., & Fletcher, B. (2003). Evidence-based patient handling: systematic review. *Nursing Standard, 17*(33), 33-36.

Attachment 1: Patient Transfer Initiative Summary

PATIENT MOVEMENT AND HANDLING INJURIES: AN ASSESSMENT OF CURRENT STATUS, COSTS, AND A BUSINESS CASE ANALYSIS

Background:

The Veterans Health Administration (VHA) represents the largest integrated healthcare delivery system in North America, with over 5.5 million unique patients seen each year, over 215,000 healthcare workers, and a $34 billion budget. It employs almost 50,000 nursing personnel, including nursing assistants, licensed practical nurses, registered nurses, and nurse practitioners. The VA is not immune from the nationwide nursing shortage that threatens care delivery. The VHA reports approximately 30,000 injuries every year though only about 5000 of these result in "lost work time". Figure 1 presents the frequencies of all injuries reported in ASISTS ("Automated Safety Incident Surveillance and Tracking System"), VHA's in-house injury management system, by fiscal year. Of the approximately 190,000 injuries in the national data base, 11.8% resulted from handling patients; that figure has remained relatively constant since 2001. Nursing staff (RN, LPN, NA) experienced 77.2% of injuries associated with the handling of patients, and over 25% occurred in nursing home care, 35% in medical surgical, 10% in other in-patient (including spinal cord) units, 8.9% in intensive care, 4.2% in imaging departments, and 3% in emergency rooms. The short term effects are time away from work for injured personnel and medical costs while the long term consequences are early retirement and disability and dissatisfaction with working conditions. At present the VHA is precluded from merging workers compensation cost data maintained by the Department of Labor with its injury data and therefore is unable to provide a precise national cost figure.

Rates of injury among staff are poorly understood. Data from the Bureau of Labor Statistics suggest that (Figure 2) health care worker injury rates have remained higher than those in occupations commonly viewed as dangerous such as agriculture and construction. Bureau of Labor Statistics data suggest that the rate of new injuries in healthcare in 2005 was 5.9 / 100 workers (200,000 hours worked) and the rate of lost time or restricted duty days 1.5 / 100 workers or 200,000 hours worked, respectively. More detailed analyses of VHA data (Table 1) suggests overall injury rates and patient transfer injury rates for nursing staff are substantially higher than those reported to the Department of Labor, possibly because the VHA has focused efforts towards increased reporting for some years. Discussions with other large healthcare systems including Kaiser and Hospital Corporation of America that do not publish their rates, suggest that reporting incentives represent the primary determinant of recorded rates.

For the VHA, male injury rates appear substantially lower than rates among women. Rates are higher among nursing assistants and licensed practical nurses than among registered nurses. This is consistent with the fact that these nursing staff generally perform more patient handling activities, and many have second jobs with similar tasks outside VHA. Rates appear to decline with age and then rise again (Figure 3). This differs from the usual pattern of injuries reported, with an increase at older ages. Such "inverted" patterns are often interpreted as evidence of a survivor effect. In addition,