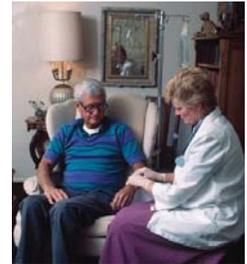




PROJECT SHARRP

SAFE HOMECARE AND RISK REDUCTION FOR PROVIDERS
Sustainable Hospitals Program, University of Massachusetts Lowell



A major research effort of the Sustainable Hospitals Program (SHP) is Project SHARRP – Safe Homecare and Risk Reduction for Providers – to address needlestick injuries and blood exposures among home healthcare practitioners. This is a four-year project (2004-2009) funded by the National Institute for Occupational Safety and Health (NIOSH) and its ultimate objective is to protect the rapidly growing population of home healthcare practitioners from risks associated with needlestick injuries and blood exposures. The Center for Disease Control and Prevention (CDC) estimates 600,000 to 800,000 injuries occur annually nationwide (in all healthcare settings) from needles and other sharp devices, potentially leading to hepatitis and HIV infection. Home healthcare is a critical area because most prevention efforts have been focused on hospitals and little attention has been given to the rapidly growing home healthcare industry.

Under the leadership of Margaret Quinn, Professor in the Department of Work Environment and Director of the SHP, the research was conducted in partnership with the Massachusetts Department of Public Health (MDPH), eight home healthcare agencies, and 2 unions representing home healthcare clinicians. The Project SHARRP objectives included:

1. Conducting surveys of home healthcare practitioners to understand the nature of home healthcare work, types of blood exposures, reasons for reporting or failing to report exposures, and barriers or driving forces for the use of medical safety devices.
2. Establishing a surveillance system within the MDPH for sharps injuries and blood exposures, to which our partner agencies will report data for a two year period. This data will be used to establish baseline blood exposure and sharps injury rates in the home healthcare setting.
3. Using the surveillance data, survey results, and ongoing discussions with agency and union partners to provide guidance on safety programs, educational outreach, interventions and other opportunities for injury prevention.



Project SHARRP Research Team

(Seated, left to right) Pia Markkanen, Catherine Galligan and Margaret Quinn, Director.

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This research effort is now in its fourth year. Surveillance activities and a series of focus groups, interviews and comprehensive survey completed by 1200 home healthcare clinicians have provided a wealth of both quantitative and qualitative information about sharps injuries and blood exposures. Our findings are providing guidance for appropriate interventions to make home healthcare a safer, more productive and satisfying work environment and providing the basis for our subsequent research of injuries in home care delivered through the social service sector.

What have we found?

Many home healthcare nurses have experienced sharps injuries. Aides have also, but their rate is much lower than for nurses.

- During the 12 months prior to the survey, 4.3% of nurses and 0.7% of aides sustained a sharps injury (SI).

When the annual sharps injury rates are expressed as the number of injuries per 100 full-time equivalent (FTE) employees (which corrects for the numbers of hours worked), the rates for nurses were in the same range as those reported in hospitals:

- Home healthcare nurses reported 5.1 SI/100 FTE
- Home healthcare aides reported 1.0 SI/100 FTE



The survey asked nurses about the circumstances related to their most recent sharps injury. We focused our analysis on the years 2001-2007, which followed the passages of the Needlestick Safety & Prevention Act of November 2000.

In the majority of cases (65%), the sharp device (e.g. syringe, lancet) had no integral safety feature.

AIDES

Among aides, blood and body fluid exposures occurred more often than sharps injuries. These were the frequent blood and body fluid exposure risk factors:

- Assisting the patient with toileting needs,
- Bathing the patient,
- Turning the patient, and
- Helping the patient get in and out of bed.

NURSES

For nurses, sharps injuries happened most often during or after the following medical procedures:

- Injecting medication,
- Fingerstick/ heelstick (lancet use),
- Phlebotomy venipuncture, and
- Accessing/deaccessing an IV line or device

Most sharps injuries occurred after the sharp device had already served its intended purpose. For example, the sharp was being disposed of or had been set aside by a patient for later reuse or disposal.

Work schedule mattered (figure below): The sharps injure rate (corrected for the number of hours worked) was highest for per-diem nurses, somewhat lower for part-timers, and lowest for full-time nurses.

**Employment status and sharps injuries among registered nurses during the past 12 months.
(Rate \pm 95% CI)**

