Data Brief: Sharps Injuries Among Hospital Workers in Massachusetts: Findings from the Massachusetts Sharps Injury Surveillance System, 2023

Occupational Health Surveillance Program November 2026

Since 2001, hospitals licensed by the Massachusetts Department of Public Health (DPH) have been required to report data on sharps injuries among workers to DPH annually (MGL/Chapter 111 s 53D) and to use sharps with engineered sharps injury prevention features (SESIPs). Annual data have been collected from all DPH licensed hospitals since 2002. This report includes data on sharps injuries that occurred during 2023.

The Massachusetts Sharps Injury Surveillance System is intended to provide information to assist Massachusetts hospitals and hospital workers in targeting and evaluating efforts to reduce the incidence of sharps injuries and the associated human and economic costs. Hospitals are required to use their own data for quality improvement purposes. For a more comprehensive description of the system, please review: Sharps Injuries among Hospital Workers in Massachusetts, 2004: Findings from the Massachusetts Sharps Injury Surveillance System.

Data highlights and prevention measures

- The number of sharps injuries reported by all DPH licensed hospitals in Massachusetts remained steady in 2023, with 2,811 sharps injuries (SI) reported. The SI rate was 16.0 SI per 100 licensed beds. This rate is similar to the annual rates since 2009 (Figure 1), demonstrating a plateau in the sharps injury rate.
- Sharps injuries involving sharps with engineered sharps injury prevention features (SESIPs) accounted for more reported sharps injuries than devices lacking sharps injury prevention features (48% vs. 46%) among all hospitals (Table 5). While this may reflect a change in procurement practices, it also highlights the point that engineering controls are only one component and that comprehensive sharps injury prevention program also includes evaluation of devices. In contrast, within large hospitals, devices lacking sharps injury prevention features accounted for more injuries than SESIPs (49% vs. 44%).
- With 11% of injuries occurring during activation of the sharps injury prevention feature (Table 9), this highlights the need for thorough training for all users on the mechanisms of those devices as well as safer work practices. Hospitals are reminded to include frontline workers in device evaluation and selection when implementing new devices with sharps injury prevention features.
- The presence of a sharps injury prevention feature is most critical after a device is used. Of injuries involving devices lacking sharps injury prevention features, 68% of those involving hypodermic needles and syringes and 52% of vacuum tube collection sets occurred either after use and before disposal or during or after disposal (Table 10). While 37% of injuries involving IV stylets occurred after use, a majority (59%) occurred during use of the device. Injuries occurring after use of the device could be thought of as “never events” in that the use of devices with sharps injury prevention features could have likely prevented the injury. Hospitals are encouraged to look at the circumstances of these injuries to determine the timing of injuries relative to use of the item, evaluate the effectiveness of the mechanisms involved, identify gaps in work practices, and assess the availability and placement of disposal containers.
- Sharps injuries in operating and procedure rooms accounted for 42% of injuries, with the operating room accounting for 30% of sharps injuries (Table 12). Work-practice controls are particularly important in operating and procedure rooms due to the limited number of SESIPs available for use in these settings. These measures include use of neutral zone for hands-free passing and increased oral communication when transferring devices among staff. In addition to the use of blunt suture needles, evaluation of multi-dose administration of injection medications should be reviewed to incorporate use of SESIPs. Alternative methods of closure, such as staples and glues should also be considered.

Key definitions and methods

Sharps injury (also referred to as an exposure incident): An exposure to blood or other potentially infectious materials as a result of an incident involving a contaminated sharp device that pierces the skin or mucous membranes. An injury with a clean sharp or device (before use) through contaminated gloves or other contaminated mediums is also considered a sharps injury. An injury involving a clean device without any contact with infectious materials is not considered an exposure incident.

Sharps device: Any object that can penetrate the skin or any part of the body and result in an exposure incident, including but not limited to needle devices, scalpels, lancets, broken glass, or broken capillary tubes.

Population under surveillance: All healthcare workers in acute and non-acute care hospitals licensed by DPH, as well as any satellite units (e.g., ambulatory care centers) operating under a hospital license.

Surveillance period: Calendar year 2023.

Sharps injury rates: Numbers are the counts of sharps injuries, while sharps injury rates indicate the probability or risk of a worker sustaining a sharps injury within the surveillance period. Rates were calculated by dividing the number of sharps injuries among all workers by the number of licensed beds, and by dividing the number of sharps injuries among employees of acute care hospitals by the number of full-time equivalent employees in those hospitals. Confidence intervals (CI) are presented for each rate. Trends in annual rates were modeled using both negative binomial and joinpoint regressions. Negative binomial regression was used to model the overall trends of these rates from 2002 to 2023. Joinpoint regression was used to identify any changes in the trends over the same period. Both rates and numbers of injuries must be considered when targeting and evaluating prevention efforts. A large hospital may have many workers who sustain sharps injuries, but the rate of injury may be low. Conversely, in a smaller hospital, relatively few workers may sustain sharps injuries, but the risk may be high.

Sharps with engineered sharps injury protections (SESIPs): Needle devices and non-needle sharps used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids, with built-in sharps injury prevention features or mechanisms that effectively reduce the risk of an exposure incident.

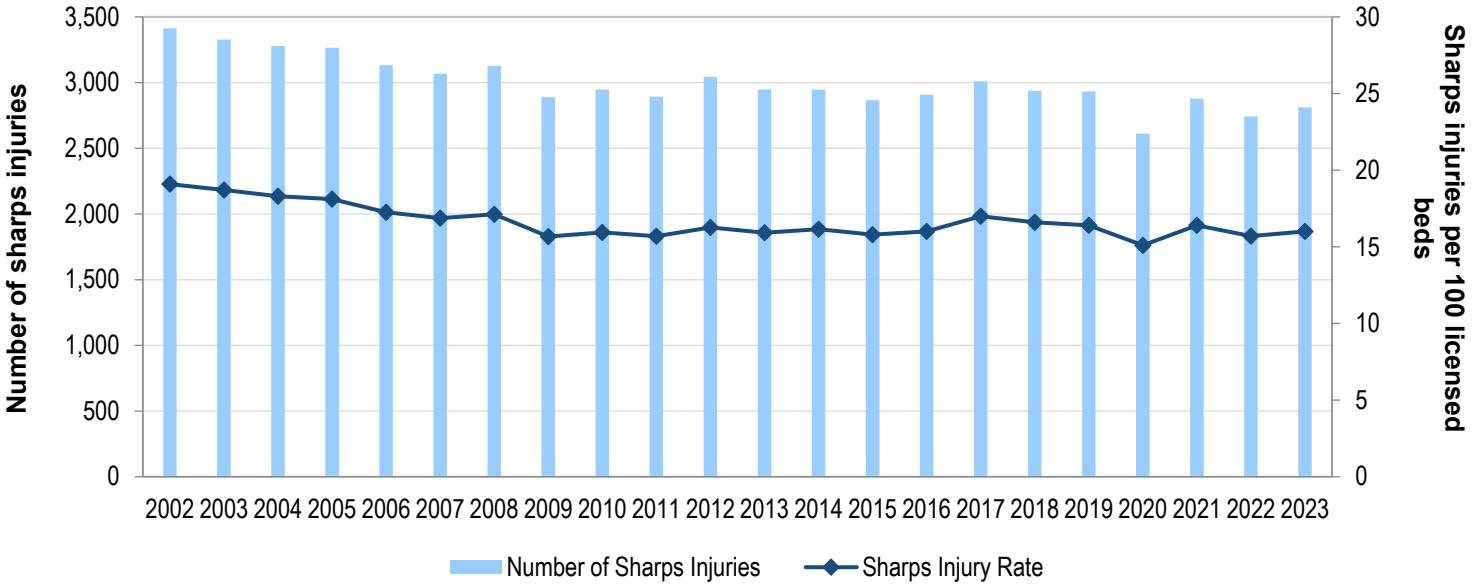
Findings

Table 1. Number and rate of sharps injuries among hospital workers by hospital characteristics, Massachusetts, 2023, N=2,811

Hospital Characteristic	Hospitals N (percent)	Sharps Injuries N (percent)	Rate per 100 licensed beds	95% Confidence Interval for Rate
Hospital size	**89 (100%)**	**2,811 (100.0%)**	**16.0**	**15.4-16.6**
Small hospital (<100 beds)	26 (29.2%)	149 (5.3%)	11.0	9.2-12.8
Medium hospital (101-300 beds)	45 (50.6%)	830 (29.5%)	10.0	9.3-10.6
Large hospital (>300 beds)	18 (22.5%)	1,832 (65.2%)	18.9	18.0-19.8
Service Type	**89 (100%)**	**2,811 (100.0%)**	**16.0**	**15.4-16.6**
Acute care	71 (78.8%)	2,765 (98.4%)	18.6	17.9-19.3
Non-acute care	18 (22.5%)	46 (1.6%)	1.7	1.2-2.2
Teaching Status	**89 (100%)**	**2,811 (100.0%)**	**16.0**	**15.4-16.6**
Teaching	17 (19.1%)	1,767 (62.9%)	26.7	25.5-27.9
Non-teaching	72 (80.9%)	1,044 (37.1%)	9.6	9.0-10.2

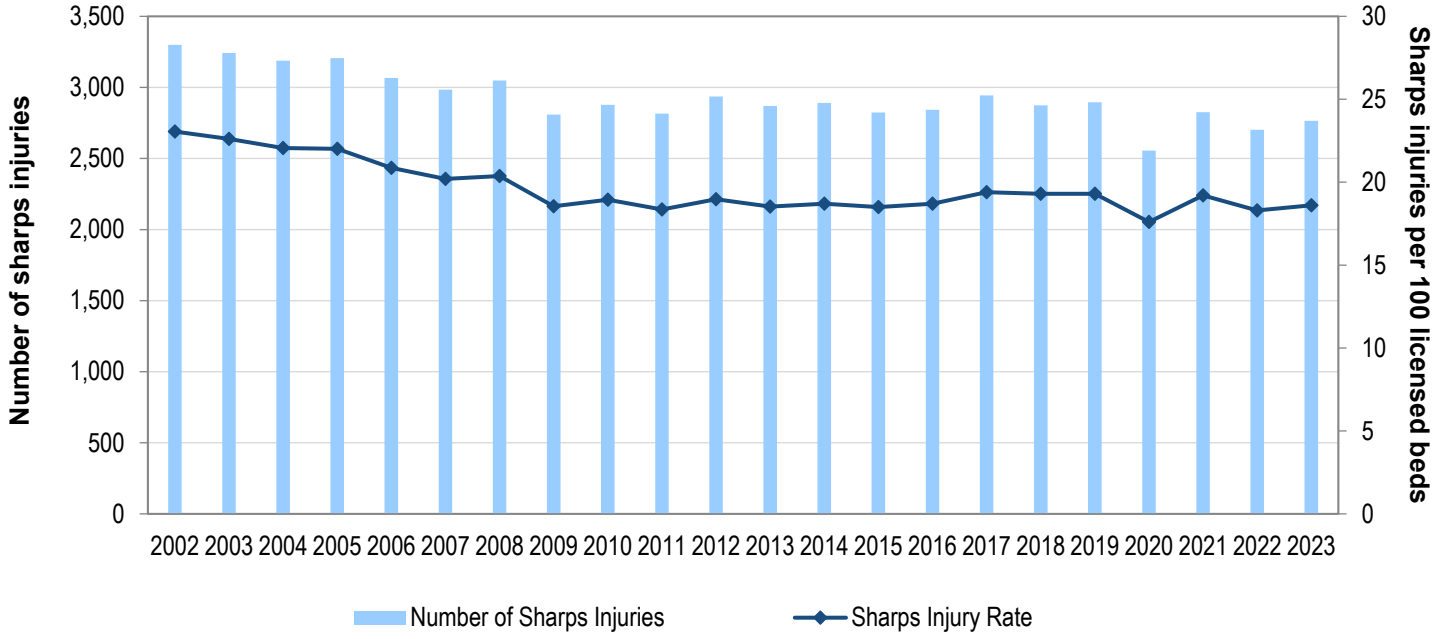
Percentages may not total 100% due to rounding.

Figure 1. Number and rate of sharps injuries per licensed beds among all workers in acute and non-acute care hospitals, Massachusetts, 2002-2023, N=65,973



The sharps injury rate for all hospitals combined decreased significantly between 2002 and 2009. The average annual percent change in the sharps injury rate between 2002 and 2009 was -2.50 ($p<0.0001$). However, the average annual percent change from 2009 to 2023 was 0.09 ($p=0.57$), indicating the rate remained relatively steady over that time period.

Figure 2. Number and rate of sharps injuries per licensed beds among all workers in acute care hospitals only, Massachusetts, 2002-2023, N=64,461



The sharps injury rate for acute care hospitals decreased significantly between 2002 and 2010. The average annual percent change in the sharps injury rate between 2002 and 2010 was -2.69 ($p<0.0001$). However, the average annual percent change from 2010 to 2023 was -0.04 ($p=0.81$), indicating that the rate remained relatively steady over that time period. When looking at the rate of sharps injuries among employees of acute care hospitals by full-time equivalents (FTEs), the rate significantly decreased between 2002 and 2009 with an average annual percent change of -4.64 ($p<0.0001$). Between 2009 to 2023 the rate remained relatively steady (average annual percent change = -0.15 ($p=0.83$)).

Table 2. Sharps injuries by worker and incident characteristics and hospital size, Massachusetts hospital workers, 2023, N=2,811

Injury Characteristics	All hospitals 89 hospitals N (percent)	Small hospitals 26 hospitals N (percent)	Medium hospitals 45 hospitals N (percent)	Large hospitals 18 hospitals N (percent)
Work status of injured worker	**2,811 (100%)**	**149 (100%)**	**830 (100%)**	**1,832 (100%)**
Employee	2,469 (88%)	134 (90%)	715 (86%)	1,620 (88%)
Non-employee practitioner	157 (6%)	6 (4%)	53 (6%)	98 (5%)
Temporary / Contract worker	123 (4%)	8 (5%)	44 (5%)	71 (4%)
Student	57 (2%)	1 (1%)	13 (2%)	43 (2%)
Volunteer	1 (<1%)	0	1 (<1%)	0
Nonclassifiable	4 (<1%)	0	4 (<1%)	0
Occupation	**2,811 (100%)**	**149 (100%)**	**830 (100%)**	**1,832 (100%)**
Nurse	1,185 (42%)	83 (56%)	372 (45%)	730 (40%)
Physician	977 (35%)	26 (24%)	204 (25%)	737 (40%)
Technician	429 (15%)	21 (14%)	183 (22%)	225 (12%)
Support services	105 (4%)	3 (2%)	29 (3%)	73 (4%)
Other medical staff	75 (3%)	4 (3%)	26 (3%)	45 (2%)
Other/Unknown/Nonclassifiable	40 (1%)	2 (<1%)	1 (<1%)	22 (1%)
Department	**2,811 (100%)**	**149 (100%)**	**830 (100%)**	**1,832 (100%)**
Operating and Procedure rooms	1,811 (42%)	46 (31%)	345 (42%)	790 (43%)
Inpatient units, excluding ICU	633 (23%)	39 (26%)	215 (26%)	379 (21%)
Emergency Department	320 (11%)	17 (11%)	114 (14%)	189 (10%)
Intensive Care Units	223 (8%)	3 (2%)	36 (4%)	184 (10%)
Outpatient areas	205 (7%)	29 (19%)	46 (6%)	130 (7%)
Laboratories	78 (3%	0	10 (1%)	68 (4%)
Other/Unknown/Nonclassifiable	173 (6%)	15 (10%)	64 (8%)	92 (5%)
Device involved in the injury	**2,811 (100%)**	**149 (100%)**	**830 (100%)**	**1,832 (100%)**
Hypodermic needle/syringe	954 (34%)	61 (41%)	294 (35%)	599 (33%)
Suture needle	555 (20%)	18 (12%)	138 (17%)	399 (22%)
Winged-steel needle	270 (10%)	21 (14%)	99 (12%)	150 (8%)
Scalpel blade	179 (6%)	7 (5%)	47 (6%)	125 (7%)
Vacuum tube collection holder/needle	92 (3%)	11 (7%)	39 (5%)	43 (2%)
Glass	43 (2%)	1 (1%)	12 (1%)	30 (2%)
Other hollow bore needle	333 (12%)	18 (12%)	92 (11%)	223 (12%)
Other /Unknown/Nonclassifiable	384 (14%)	12 (8%)	92 (11%)	263 (14%)
Procedure for which the device was used or intended	**2,811 (100%)**	**149 (100%)**	**830 (100%)**	**1,832 (100%)**
Injection	857 (30%)	54 (36%)	262 (32%)	541 (30%)
Suturing	574 (20%)	21 (14%)	142 (17%)	411 (22%)
Blood procedures	425 (15%)	34 (23%)	149 (18%)	242 (13%)
Line procedures	288 (10%)	17 (11%)	91 (11%)	180 (10%)
Making the incision	268 (10%)	13 (9%)	76 (9%)	179 (10%)
To obtain body fluid or tissue sample	50 (2%)	0	17 (2%)	33 (2%)
Other/Unknown/Nonclassifiable	349(12%)	10 (6%)	93 (12%)	246 (13%)

Hospital size: small=<100 licensed beds; medium=101-300 licensed beds; large=>300 licensed beds.
Percentages may not total 100% due to rounding.

Table 3. Sharps injuries involving hollow-bore devices by device type and occupation, Massachusetts hospital workers, 2023, N=1,650

Occupation	Total N (Percent)	Hypodermic needle/syringe N (Percent)	Winged-steel needle N (Percent)	Vacuum tube collection set N (Percent)	Other hollow bore N (Percent)
Nurse	965 (100%)	621 (64%)	114 (12%)	45 (5%)	185 (19%)
Physician	310 (100%)	196 (63%)	5 (2%)	5 (2%)	104 (34%)
Technician	271 (100%)	74 (27%)	134 (49%)	38 (14%)	25 (9%)
Support services	55 (100%)	31 (56%)	12 (22%)	3 (5%)	9 (16%)
Dental staff	33 (100%)	19 (58%)	4 (12%)	2 (6%)	8 (24%)
Other medical staff	13 (100%)	10 (77%)	1 (1%)	0	2 (15%)
Other	3 (100%)	3 (100%)	0	0	0
Total	**1,650 (100%)**	**954 (58%)**	**270 (16%)**	**93 (6%)**	**333 (20%)**

Percentages may not total 100% due to rounding.

Table 4. Sharps injuries involving solid-bore devices by device type and occupation, Massachusetts hospital workers, 2023, N=1,146

Occupation	Total N (Percent)	Suture Needle N (Percent)	Scalpel N (Percent)	Glass N (Percent)	Other/Unknown N (Percent)
Nurse	219 (100%)	67 (31%)	35 (16%)	24 (11%)	93 (42%)
Physician	662 (100%)	419 (63%)	94 (14%)	9 (1%)	140 (21%)
Technician	156 (100%)	55 (35%)	42 (27%)	7 (4%)	52 (33%)
Support services	70 (100%)	5 (7%)	2 (3%)	0	63 (90%)
Dental staff	1 (100%)	0	1 (100%)	0	0
Other medical staff	20 (100%)	2 (10%)	4 (20%)	1 (5%)	13 (65%)
Other/Nonclassifiable	18 (100%)	7 (42%)	1 (6%)	2 (12%)	8 (47%)
Total	**1,146 (100%)**	**555 (48%)**	**179 (16%)**	**43 (4%)**	**369 (32%)**

Percentages may not total 100% due to rounding.

Table 5. Sharps injuries by SESIP by hospital size: all devices and excluding suture needles, Massachusetts hospital workers, 2023, N=2,811

SESIP status	All Hospitals 89 hospitals N (percent)	Small Hospitals 26 Hospitals N (Percent)	Medium Hospitals 45 Hospitals N (Percent)	Large Hospitals 18 Hospitals N (Percent)
All devices	**2,811 (100%)**	**149 (100%)**	**830 (100%)**	**1,832 (100%)**
SESIP	1,346 (48%)	90 (60%)	449 (54%)	807 (44%)
Non-SESIP	1,280 (46%)	55 (37%)	329 (40%)	896 (49%)
Unknown/Not answered/Nonclassifiable	185 (6%)	4 (3%)	52 (6%)	129 (7%)
Devices excluding suture needles	**2,256 (100%)**	**131 (100%)**	**692 (100%)**	**1,433 (100%)**
SESIP	1,344 (60%)	90 (69%)	448 (65%)	806 (56%)
Non-SESIP	733 (32%)	37 (28%)	195 (28%)	501 (35%)
Unknown/Not Answered/Nonclassifiable	179 (8%)	4 (3%)	49 (7%)	126 (9%)

SESIP = sharps with engineered sharps injury protections. Hospital size: small=<100 licensed beds; medium=101-300 licensed beds; large=>300 licensed beds. Percentages may not total 100% due to rounding.

Table 6. Sharps injuries by device and SESIP, Massachusetts hospital workers, 2023, N=2,811

Devices	Total N (Percent)	SESIP N (Percent)	Non-SESIP N (Percent)	Unknown/Not answered N (Percent)
Hypodermic needle/syringe	954 (100%)	723 (76%)	184 (19%)	47 (5%)
Winged steel needle	270 (100%)	260 (97%)	5 (1%)	5 (1%)
Scalpel blade	179 (100%)	67 (40%)	105 (59%)	7 (4%)
Vacuum tube collection holder/needle	93 (100%)	62 (67%)	25 (26%)	6 (6%)
Suture needle	555 (100%)	2 (<1%)	547 (99%)	6 (1%)
Other hollow bore needle	333 (100%)	200 (61%)	114 (34%)	19 (6%)
All Other	359 (100%)	32 (9%)	295 (82%)	95 (26%)
Unknown/Not answered/Nonclassifiable	68 (100%)	0	5 (7%)	63 (93%)
Total	**2,811 (100%)**	**1,346 (48%)**	**1,280 (46%)**	**185 (7%)**

SESIP = sharps with engineered sharps injury protections. Percentages may not total 100% due to rounding.

Table 7. Sharps injuries involving devices from prepackaged kits by device and SESIP, Massachusetts hospital workers, 2023, N=651

Devices	Total N (Percent)	SESIP N (Percent)	Non-SESIP N (Percent)	Unknown/Not answered N (Percent)
Hypodermic needle/syringe	198 (100%)	153 (77%)	42 (21%)	3 (2%)
Winged steel needle	76 (100%)	74 (97%)	74 (97%)	0
Scalpel blade	49 (100%)	28 (57%)	21 (43%)	0
Vacuum tube collection holder/needle	30 (100%)	20 (67%)	10 (33%)	0
Suture needle	85 (100%)	1 (1%)	84 (99%)	0
Other hollow bore needle	140 (100%)	80 (57%)	54 (39%)	6 (4%)
Other	73 (100%)	6 (8%)	64 (88%)	3 (4%)
Total	**651 (100%)**	**362 (56%)**	**277 (43%)**	**12 (2%)**

SESIP = sharps with engineered sharps injury protections. Percentages may not total 100% due to rounding.

Table 8. Sharps injuries by select procedures and SESIP, Massachusetts hospital workers, 2023, N=1,570

Procedure for which the device was used or intended	Total N (Percent)	SESIP N (Percent)	Non-SESIP N (Percent)	Unknown/Not answered N (Percent)
Injection procedures	**857 (100%)**	**655 (76%)**	**172 (20%)**	**30 (4%)**
Subcutaneous injection	657 (100%)	530 (81%)	110 (17%)	17 (3%)
Intramuscular injection	145 (100%)	113 (78%)	23 (16%)	9 (6%)
Other injections	55 (100%)	12 (22%)	39 (71%)	4 (7%)
Blood procedures	**425 (100%)**	**363 (85%)**	**39 (9%)**	**23 (5%)**
Percutaneous venous puncture	345 (100%)	313 (91%)	21 (6%)	11 (3%)
Percutaneous arterial puncture	24 (100%)	21 (88%)	3 (13%)	0
Finger stick / Heel stick	32 (100%)	14 (44%)	9 (28%)	9 (28%)
Other blood procedures	24 (100%)	15 (63%)	6 (25%)	3 (13%)
Line procedures	**288 (100%)**	**204 (71%)**	**71 (25%)**	**13 (5%)**
To insert peripheral IV/set up heparin lock	103 (100%)	97 (94%)	4 (4%)	2 (2%)
To insert central line	27 (100%)	7 (26%)	17 (63%)	3 (11%)
Other line procedures	158 (100%)	100 (63%)	50 (32%)	8 (5%)
Total	**1,570 (100%)**	**1,222 (78%)**	**282 (18%)**	**66 (4%)**

SESIP = sharps with engineered sharps injury protections. Percentages may not total 100% due to rounding.

Table 9. Sharps injuries among hospital workers by when and how the injury occurred by hospital size, Massachusetts, 2023, N=2,811

When and how the injury occurred	All hospitals 89 hospitals N (Percent)	Small hospitals 27 hospitals N (percent)	Medium hospitals 44 hospitals N (percent)	Large hospitals 18 hospitals N (percent)
Before Use of the Item	**39 (1%)**	**2 (1%)**	**14 (2%)**	**23 (1%)**
During Use of the item	**1,380 (49%)**	**63 (43%)**	**398 (48%)**	**919 (50%)**
Suturing	341 (12%)	8 (5%)	78 (9%)	255 (14%)
Manipulate needle in patient	306 (11%)	22 (15%)	82 (10%)	202 (11%)
Patient moved and jarred device	292 (10%)	17 (11%)	109 (13%)	166 (9%)
Collision with worker or sharp	227 (8%)	7 (5%)	73 (9%)	147 (8%)
Handle/pass equipment	54 (2%)	5 (3%)	12 (1%)	37 (2%)
Access IV line	23 (1%)	1 (1%)	12 (1%)	10 (1%)
Other / Unknown / Nonclassifiable	1 (<1%)	0	0	1 (<1%)
After use, before disposal	**1,040 (37%)**	**63 (43%)**	**299 (36%)**	**678 (37%)**
Activating injury protection mechanism	312 (11%)	23 (16%)	84 (10%)	205 (11%)
Handle/pass equipment	215 (8%)	9 (6%)	62 (7%)	144 (8%)
During clean-up	209 (7%)	17 (11%)	54 (7%)	138 (8%)
Collision with worker or sharp	89 (3%)	2 (1%)	23 (3%)	64 (3%)
Recap needle	80 (3%)	4 (3%)	34 (4%)	42 (2%)
Sharps injury prevention mechanism not activated	66 (2%)	3 (2%)	25 (3%)	38 (2%)
Device malfunction	37 (1%)	4 (3%)	11 (1%)	22 (1%)
Other / Unknown / Nonclassifiable	32 (1%)	1 (1%)	6 (1%)	25 (1%)
During or after disposal of item	**299 (11%)**	**18 (12%)**	**103 (12%)**	**178 (10%)**

During sharps disposal	171 (6%)	12 (8%)	68 (8%)	91 (5%)
Improper disposal	127 (5%)	6 (4%)	35 (4%)	86 (5%)
Other / Unknown / Nonclassifiable	1 (<1%)	0	0	1 (<1%)
Unknown/Not answered/Nonclassifiable	**53 (2%)**	**3 (2%)**	**16 (2%)**	**34 (2%)**
Total	**2,811 (100%)**	**149 (100%)**	**830 (100%)**	**1,832 (100%)**

Hospital size: small<100 licensed beds; medium 101-300 licensed beds; large >300 licensed beds.
Percentages may not total 100% due to rounding.

Table 10. Sharps injuries involving select devices without sharps injury prevention features but for which SESIPs are widely available, by when the injury occurred, Massachusetts hospital workers, 2023, N=243

Device	Total N (Percent)	Before use of the device N (Percent)	During use of the device N (Percent)	After use, before disposal of the device N (Percent)	During or after disposal of the device N (Percent)	Unknown/ Nonclassifiable timing of when the injury occurred N (Percent)
Hypodermic Needle/Syringe	184 (100%)	2 (1%)	55 (30%)	87 (47%)	38 (21%)	2 (1%)
IV Stylet	29 (100%)	1 (3%)	17 (59%)	10 (34%)	1 (3%)	0
Vacuum Tube Collection Holder	25 (100%)	1 (4%)	11 (44%)	3 (12%)	10 (40%)	0
Winged-Steel Needle Holder	5 (100%)	0	3 (60%)	1 (20%)	1 (20%)	0
Total	**243 (100%)**	**4 (2%)**	**86 (34%)**	**101 (42%)**	**50 (21%)**	**2 (1%)**

*SESIPs offer protection during the period after use. Injuries presented in this table that occurred after use (n=243) can be considered “preventable adverse events” – events that could have been prevented with the use of SESIPS. Percentages may not total 100% due to rounding.

Detailed tables

Table 11. Sharps injuries by occupation (detailed), Massachusetts hospital workers, 2023, N=2,811

Occupation	N (Percent)
Nurse	**1,185 (42%)**
RN or LPN	1,051 (32%)
Nurse assistant	46 (2%)
Patient care technician	33 (1%)
Nurse practitioner	26 (1%)
Nurse anesthetist	15 (1%)
Nurse midwife	8 (<1%)
Nursing student	6 (<1%)
Physician	**977 (35%)**
Intern/Resident	364 (13%)
Physician	216 (8%)
Fellow	133 (5%)
Surgeon	97 (3%)
Physician Assistant	102 (4%)
Medical student	34 (1%)
Anesthesiologist	22 (1%)
Radiologist	9 (<1%)
Technician	**429 (15%)**
Phlebotomist	160 (6%)
OR/Surgical technician	150 (5%)
Radiologic technician	31 (1%)
Emergency department technician	20 (1%)
Clinical lab technician	15 (1%)
Respiratory therapist/technician	13 (<1%)
Morgue technician	5 (<1%)
Other technician	33 (1%)
Support services	**105 (4%)**
Housekeeper	55 (2%)
Central supply	37 (1%)
Maintenance	6 (<1%)
Safety/security	4 (<1%)
Transport/messenger/porter	1 (<1%)
Other ancillary staff	1 (<1%)
Other medical staff	**75 (3%)**
Medical assistant	67 (2%)
Physical Therapist	1 (<1%)
Other medical staff	4 (<1%)
Dental staff	**8 (<1%)**
Dental assistant/tech	7 (<1%)
Dental student	1 (<1%)
Other	**31 (1%)**
Clerical/administrative	6 (<1%)
Pharmacist	5 (<1%)
EMT/paramedic	3 (<1%)
Counselor/social worker	1 (<1%)

Occupation	N (Percent)
Law enforcement officer	1 (<1%)
Other student	8 (<1%)
Other	7 (<1%)
Unknown/Not Answered/Nonclassifiable	**1 (<1%)**
Total	**2,811 (100%)**

Percentages may not total 100% due to rounding.

Table 12. Sharps injuries by department (detailed), Massachusetts hospital workers, 2023, N=2,811

Department or work location	N (Percent)
Operating and Procedure Rooms	**1,181 (42%)**
Operating room	855 (30%)
Radiology	70 (2%)
Labor and delivery	69 (2%)
Hematology/oncology	53 (2%)
Phlebotomy room	50 (2%)
Cardiac catheterization laboratory	44 (2%)
Endoscopy/bronchoscopy/cystoscopy	13 (<1%)
Dialysis	7 (<1%)
Other procedure room	19 (1%)
Procedure room, unspecified	1 (<1%)
Inpatient Units, other than ICU	**633 (23%)**
Medical/surgical ward	577 (21%)
Obstetrics/gynecology	21 (1%)
Psychiatry ward	15 (1%)
Pediatrics	8 (<1%)
Nursery	1 (<1%)
Patient room, ward unspecified	11 (<1%)
Emergency Department	**320 (11%)**
Intensive Care Unit	**223 (8%)**
Intensive Care Unit	207 (7%)
Post anesthesia care unit	16 (1%)
Outpatient Areas	**205 (7%)**
Ambulatory care clinic	158 (6%)
Dental clinic	14 (<1%)
Physician office	9 (<1%)
Home health visit	4 (<1%)
Community health center	4 (<1%)
Other outpatient area	16 (1%)
Laboratory	**78 (3%)**
Histology/pathology	21 (1%)
Clinical chemistry	8 (<1%)
Morgue/autopsy room	6 (<1%)
Blood bank	4 (<1%)
Microbiology	2 (<1%)
Other laboratory	36 (1%)
Laboratory, unspecified	1 (<1%)

Other Areas	**164 (6%)**
Central sterile supply	40 (1%)
Dermatology	37 (1%)
Rehabilitation unit	21 (1%)
Pain clinic	18 (1%)
Exam room	15 (1%)
Long term care	8 (<1%)
Anesthesia	6 (<1%)
Hospital grounds	3 (<1%)
Pharmacy	3 (<1%)
Central trash area	2 (<1%)
Employee health/infection control	1 (<1%)
Ambulance	1 (<1%)
Other location	9 (<1%)
Unknown/Not Answered/Nonclassifiable	**7 (<1%)**
Total	**2,811 (100%)**

Percentages may not total 100% due to rounding.

Table 13. Sharps injuries by device (detailed), Massachusetts hospital workers, 2023, N=2,811

Device type	N (Percent)
Hypodermic needles/syringe	**954 (34%)**
Hypodermic needle attached to a disposable syringe	813 (29%)
Prefilled cartridge syringe	94 (3%)
Unattached hypodermic needle	31 (1%)
Hypodermic needle attached to IV tubing	12 (<1%)
Hypodermic needle attached to a non-disposable syringe	4 (<1%)
Suture Needle	**555 (20%)**
Curved suture needle	491 (17%)
Straight suture needle	31 (1%)
Suture needle, unspecified	33 (1%)
Other Hollow Bore Needles	**333 (12%)**
IV Stylet	137 (5%)
Huber needle	60 (2%)
Biopsy needle	34 (1%)
Spinal or epidural needle	21 (1%)
Intraosseous needle	2 (<1%)
Other type of hollow bore needle	34 (1%)
Hollow bore needle, unspecified	45 (2%)
Scalpel Blade	**179 (6%)**
Winged Steel Needle	**270 (10%)**
Winged steel needle attached to a vacuum tube collection holder	204 (7%)
Winged steel needle	59 (2%)
Winged steel needle attached to IV tubing	7 (<1%)
Vacuum Tube Collection Holder/Needle	**93 (3%)**
Phlebotomy needle (other than winged steel needle)	47 (2%)
Vacuum tube collection holder/needle	46 (2%)
Glass	**43 (2%)**
Specimen / Test / Vacuum tube	29 (1%)

Medication ampule / Vial / IV bottle	7 (<1%)
Slide	1 (<1%)
Pipette	1 (<1%)
Other glass item	5 (<1%)
Dental Device or Item	**14 (<1%)**
Scaler/curette	5 (<1%)
Dental bur	6 (<1%)
Other dental device or item	3 (<1%)
Other	**302 (11%)**
Wire	39 (1%)
Lancet	33 (1%)
Retractor	30 (1%)
Electrode	23 (1%)
Scissors	23 (1%)
Forceps	14 (1%)
Pin	13 (<1%)
Cutting blade other than scalpel	11 (<1%)
Bone chip/chipped tooth	11 (<1%)
Bovie electrocautery device	8 (<1%)
Bone cutter	8 (<1%)
Trocar	7 (<1%)
Tenaculum	7 (<1%)
Drill bit	6 (<1%)
Staple	4 (<1%)
Razor	2 (<1%)
Other needle	10 (<1%)
Other type of sharp object	51 (2%)
Needle, unspecified	2 (<1%)
Unknown/Not Answered/Nonclassifiable	**68 (2%)**
Total	**2,811 (100%)**

Percentages may not total 100% due to rounding.

Table 14. Sharps injuries by procedure (detailed), Massachusetts hospital workers, 2023, N=2,811

Purpose or procedure for which the device was used or intended	N (Percent)
Injection	**857 (30%)**
Subcutaneous injection	657 (23%)
Intramuscular injection	145 (5%)
Epidural/spiral anesthesia	28 (1%)
Injection, unspecified	14 (<1%)
Other injection	13 (<1%)
Suturing	**574 (20%)**
Suturing	559 (20%)
Suture removal	15 (1%)
Blood Procedures	**425 (15%)**
Percutaneous venous puncture	345 (12%)
Finger stick / heel stick	32 (1%)
Percutaneous arterial puncture	24 (1%)
Dialysis / AV fistula site	8 (<1%)

Draw blood from umbilical vessel	7 (<1%)
Other blood procedure	9 (<1%)
Line Procedures	**288 (10%)**
To insert a peripheral IV line or set up a heparin lock	103 (4%)
Draw blood from central or peripheral IV line or port	53 (2%)
Other injection into IV site/port	38 (1%)
To insert a central IV line	27 (1%)
To insert an arterial line	21 (1%)
To flush heparin/saline	6 (<1%)
To connect IV line	5 (<1%)
Other line procedure	13 (<1%)
Making the incision	**268 (10%)**
Making the incision	190 (7%)
Surgical procedure, unspecified	22 (1%)
Cauterization	2 (<1%)
Other surgical procedure	54 (2%)
To Obtain Body Fluid or Tissue Sample	**50 (2%)**
Dental Procedures	**7 (<1%)**
Hygiene	2 (<1%)
Oral surgery	2 (<1%)
Dental procedures, unspecified	3 (<1%)
Other	**190 (7%)**
To obtain lab specimens	43 (2%)
Transferring blood/body fluid to another container	23 (1%)
Drilling	13 (<1%)
Shaving	2 (<1%)
Other procedure	104 (4%)
Procedure, unspecified	5 (<1%)
Unknown/Not Answered/Nonclassifiable	**152 (5%)**
Total	**2,811 (100%)**

Percentages may not total 100% due to rounding.