Data Brief:
Sharps Injuries among Hospital Workers in Massachusetts: Findings from the Massachusetts Sharps Injury Surveillance System, 2015

Massachusetts Department of Public Health APRIL, 2017

Data Highlights and Prevention Measures

- 2,866 sharps injuries were reported in 2015. The sharps injury rate for workers in all Massachusetts Department of Public Health (DPH) licensed hospitals was 15.8 sharps injuries per 100 licensed beds, similar to rates for the three previous years (Figure 2). Comparable findings were observed in rates for employees (per 1,000 full time employee equivalents) in acute care hospitals only (data not shown). These findings (Figure 2) suggest that the earlier observed decline in rates from 2002-2010 is leveling off and underscore the need for a continuing commitment to preventing sharps injuries. Hospitals, in interpreting their own sharps injury rates, need to understand employee reporting practices in their facilities.

- For the second time in 14 years, the percentage of injuries among nurses equals the percentage among physicians (38%) unlike earlier years when nurses accounted for more injuries than physicians. This may reflect greater adoption over time of devices with sharps injury prevention features (SESIPs) for devices most often used by nurses coupled with targeted efforts to improve physician reporting of sharps injuries in some larger hospitals. This overall pattern was driven by the experience in larger hospitals and was reversed in smaller and medium sized hospitals where nurses reported more sharps injuries than physicians. This difference by hospital size may reflect differences in the types of procedures conducted (i.e., more surgery in larger hospitals).

- Injuries involving injection procedures accounted for 28% of all sharps injuries, with subcutaneous injections accounting for the majority of those (79% of injection related injuries). Of all injection related injuries, 20% occurred with non-SESIPs. In accordance with 105 CMR 130.1001 *et seq*, hospitals are required to use devices with sharps injury prevention features as a means of minimizing the risk of injury to healthcare workers from needles and other sharps. The high number of injuries involving non-SESIPs indicates that more work needs to be done to promote use of SESIPs. An additional 78% of all injection related injuries occurred with SESIPs. This high percentage of SESIPs likely reflects increased use of SESIPs as required. It is also important to evaluate the SESIPs currently being used in order to identify opportunities for using more protective devices. Regular evaluation of devices is necessary in order to select and implement devices that are more effective at preventing injuries.

- The presence of a sharps injury prevention feature is most crucial *after* the device is used. There were 229 sharps injuries due to non-SESIPs that involved common devices for which SESIPS are widely available. Hypodermic needles/syringes, most often used for injections, accounted for 174 of these injuries, and 68% (119) of the hypodermic needles/syringe injuries occurred after use. These 119 injuries after use could be thought of as "preventable adverse events" in that use of SESIPs may have prevented the injury.

Since 2001, hospitals licensed by the Massachusetts Department of Public Health (DPH) have been required to report data on sharps injuries among workers to the Department annually (MGL/Chapter 111 s 53D). Data have been collected from all DPH licensed hospitals (an average of 98 hospitals annually) since 2001. This report includes data on sharps injuries that occurred during 2015.

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. For a more comprehensive description of the system, please see: http://www.mass.gov/eohhs/docs/dph/occupational-health/injuries/injuries-hospital-2004.pdf.

Key Definitions

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, and broken capillary tubes.

Population under surveillance: All health care 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 2015.

Sharps injury rates: Sharps injury rates indicate the probability or risk of a worker sustaining a sharps injury within the surveillance period. Numbers are the counts of sharps injuries. 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. Both rates and numbers of injuries must be considered when targeting and evaluating prevention efforts. The rates presented in this report were calculated by dividing the number of sharps injuries among all workers by the number of licensed beds. 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 2015. Joinpoint regression was used to identify any changes in the trends over the same period.

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.

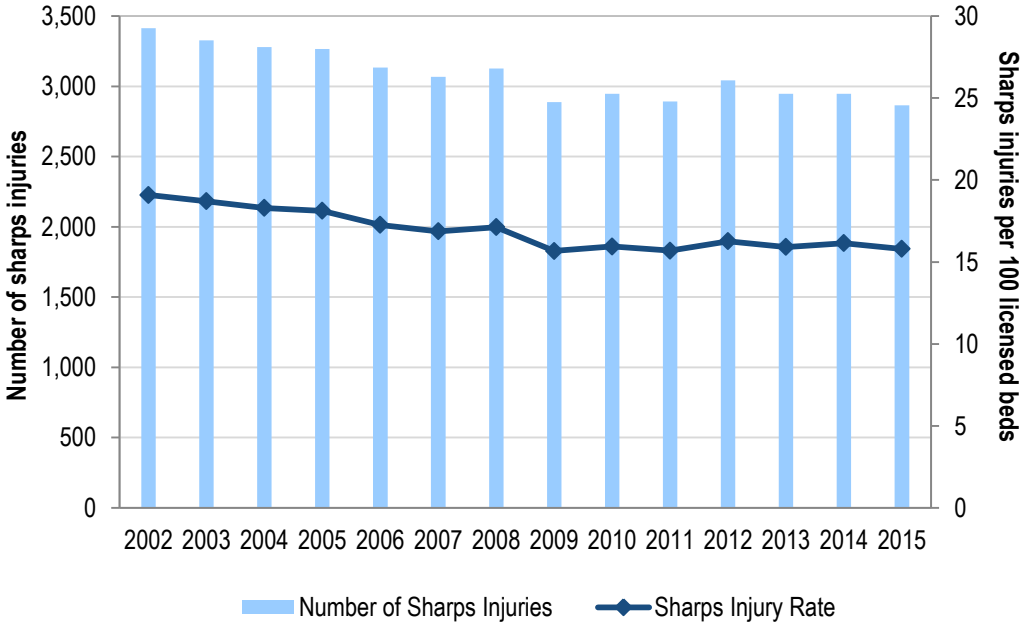
Findings

Table 1. Number and rate of sharps injuries among hospital workers by hospital characteristics, Massachusetts, 2015

	Number of Hospitals	Number of sharps injuries	Rate per 100 licensed beds	95% CI
Hospital size				
Small (< 100 licensed beds)	28	190	11.8	10.2-13.4
Medium (101-300 licensed beds)	52	972	10.5	9.9-11.2
Large (>300 licensed beds)	14	1,704	23.2	22.2-24.2
Service Type				
Acute care	75	2,823	18.5	17.9-19.1
Non-acute care*	19	43	1.5	1.0-1.9
Teaching Status				
Teaching	16	1,768	27.7	26.6-28.7
Non-teaching	78	1,098	9.3	8.8-9.8
Total	**94**	**2,866**	**15.8**	**15.2-16.3**

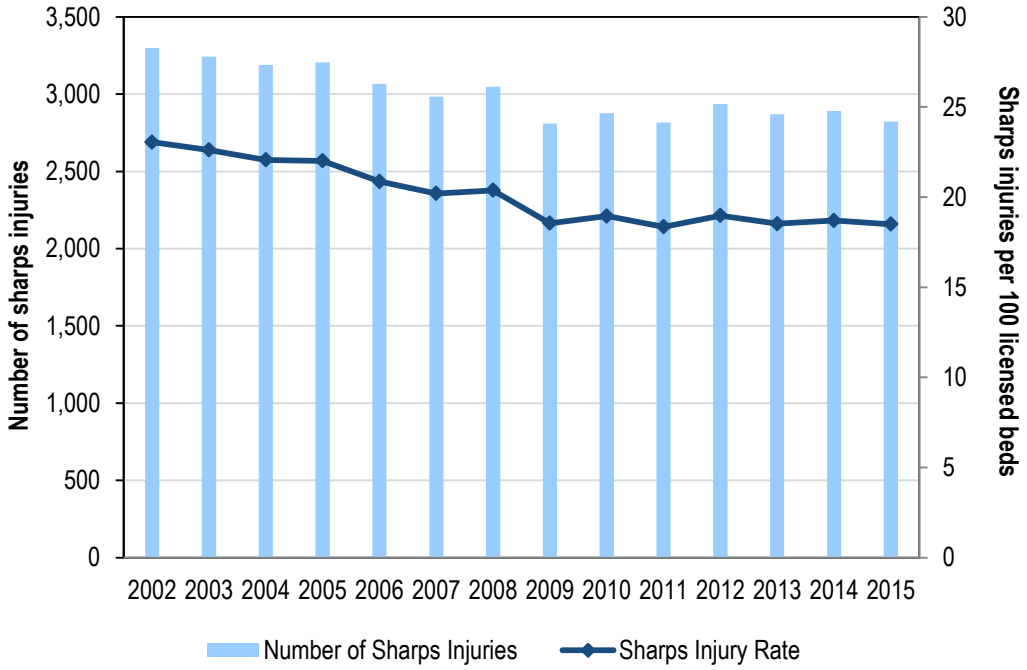
*Non-acute care hospitals include chronic care and rehabilitation facilities.

Figure 1. Number and rate of sharps injuries per licensed beds among all workers in acute and non-acute care hospitals, Massachusetts, 2015



The annual sharps injury rate in all hospitals combined declined significantly by 16.8% ($p \leq 0.05$) from 19.1 sharps injuries per 100 licensed beds in 2002 to 15.9 in 2010. However, from 2010 to 2015 the sharps injury rate has plateaued.

Figure 2. Number and rate of sharps injuries per licensed beds among all workers in acute care hospitals only, Massachusetts, 2015



Sharps injury rates in acute care hospitals declined significantly by 18.2% ($p \leq 0.05$) from 24.2 sharps injuries per 100 licensed beds in 2002 to 18.9 in 2010. However, the sharps injury rate has plateaued since 2010.

Table 2. Sharps injuries by worker and incident characteristics and hospital size, Massachusetts hospital workers, 2015

	All Hospitals 94 hospitals		Hospital Size					
			Small 28 hospitals		Medium 52 hospitals		Large 14 hospitals	
	N	%	N	%	N	%	N	%
Work status of injured worker	**2,866**	**100**	**190**	**100**	**972**	**100**	**1,704**	**100**
Employee	2,463	86	172	91	812	84	1,479	87
Non-Employee Practitioner	311	11	11	6	120	12	180	11
Student	73	3	2	1	33	3	38	2
Temporary / Contract Worker	19	1	5	3	7	1	7	<1
Occupation	**2,866**	**100**	**190**	**100**	**972**	**100**	**1,704**	**100**
Physician	1,080	38	43	23	253	26	783	46
Nurse	1,079	38	100	53	403	41	577	34
Technician	482	17	31	16	219	23	232	14
Support Services	99	3	5	3	39	4	55	3
Dental Staff	17	1	1	1	4	<1	12	1
Other Medical Staff	62	2	4	2	30	3	28	2
Other / Unknown / Not answered	47	2	6	3	24	2	17	1
Department where injury occurred	**2,866**	**100**	**190**	**100**	**972**	**100**	**1,704**	**100**
Operating and Procedure Rooms	1,259	44	63	33	394	41	802	47
Inpatient Units	582	20	48	25	243	25	291	17
Emergency Department	297	10	23	12	135	14	139	8
Intensive Care Units	236	8	14	7	49	5	173	10
Outpatient areas	217	8	23	12	64	7	130	8
Laboratories	103	4	9	5	22	2	72	4
Other / Unknown / Not answered	172	6	10	5	65	7	97	6
Device involved in the injury	**2,866**	**100**	**190**	**100**	**972**	**100**	**1,704**	**100**
Hypodermic needle/syringe	917	32	61	32	309	32	547	32
Suture needle	628	22	26	14	186	19	416	24
Scalpel blade	215	8	16	8	67	7	132	8
Winged-steel needle	211	7	23	12	101	10	87	5
Vacuum tube collection holder/needle	73	3	3	2	43	4	27	2
Glass	24	1	1	1	3	<1	20	1
Dental device or item	18	1	3	2	5	1	10	1
Other hollow bore needle	317	11	25	13	117	12	175	10
Other / Unknown / Not answered	463	16	32	17	141	15	290	17
Procedure for which the device was	**2,866**	**100**	**190**	**100**	**972**	**100**	**1,704**	**100**
Injection	798	28	54	28	284	29	460	27
Suturing	633	22	27	14	188	19	418	25
Blood procedures	354	12	35	18	170	17	149	9
Making the incision	292	10	19	10	89	9	184	11
Line procedures	291	10	20	11	92	9	179	11
To obtain body fluid or tissue sample	55	2	3	2	12	1	40	2
Dental procedures	22	1	0	0	5	1	17	1
Other / Unknown / Not answered	421	15	32	17	132	14	257	15

Table 3. Sharps injuries involving hollow-bore devices by device type and occupation, Massachusetts hospital workers, 2015

Occupation	Total		Hollow Bore							
			Hypodermic Needle/Syringe		Winged-Steel Needle		Vacuum Tube Collection Set		Other Hollow Bore	
	N	%	N	%	N	%	N	%	N	%
Nurse	846	100	567	67	90	11	30	4	159	19
Physician	329	100	217	66	8	2	2	1	102	31
Technician	241	100	76	32	94	39	36	15	35	15
Support Services	30	100	12	40	3	10	1	3	14	47
Dental staff	2	100	2	100	0	0	0	0	0	0
Other medical staff	47	100	26	55	14	30	4	9	3	6
Other	23	100	17	74	2	9	0	0	4	17
Total	**1,518**	**100**	**917**	**60**	**211**	**14**	**73**	**5**	**317**	**21**

Table 4. Sharps injuries involving solid-bore devices by device type and occupation, Massachusetts hospital workers, 2015

Occupation	Total		Suture Needle		Scalpel		Glass		Other/ Unknown	
	N	%	N	%	N	%	N	%	N	%
Physician	750	100	441	59	125	17	2	<1	182	24
Technician	241	100	86	36	46	19	16	7	93	39
Nurse	234	100	75	32	36	15	6	3	117	50
Support Services	69	100	7	10	4	6	0	0	58	84
Dental staff	15	100	5	33	1	7	0	0	9	60
Other medical staff	15	100	1	7	0	0	0	0	14	93
Other / Unknown / Not answered	24	100	13	57	3	13	0	0	8	33
Total	**1,348**	**100**	**628**	**47**	**215**	**16**	**24**	**2**	**481**	**36**

Table 5. Sharps injuries by SESIP by hospital size: all devices and excluding suture needles, Massachusetts hospital workers, 2015

	All Hospitals 94 hospitals		Hospital Size^ Small 28 hospitals		Medium 52 hospitals		Large 14 hospitals	
Sharps Injury Protections	N	%	N	%	N	%	N	%
All devices	**2,866**	**100**	**190**	**100**	**972**	**100**	**1,704**	**100**
SESIP	1,279	45	88	46	509	52	682	40
Non-SESIP	1,431	50	89	47	392	40	950	56
Unknown/Not answered	156	5	13	7	71	7	72	4
Devices excluding suture needles	**2,238**	**100**	**164**	**100**	**786**	**100**	**1,237**	**100**
SESIP	1,275	57	88	54	508	65	679	53
Non-SESIP	823	37	63	38	218	28	542	42
Unknown/Not answered	140	6	13	8	60	8	67	5

^Hospital size: small= <100 licensed beds; medium=101-300 licensed beds; large=>300 licensed beds

Figure 3. Sharps injuries by device and SESIP, Massachusetts hospital workers, 2015

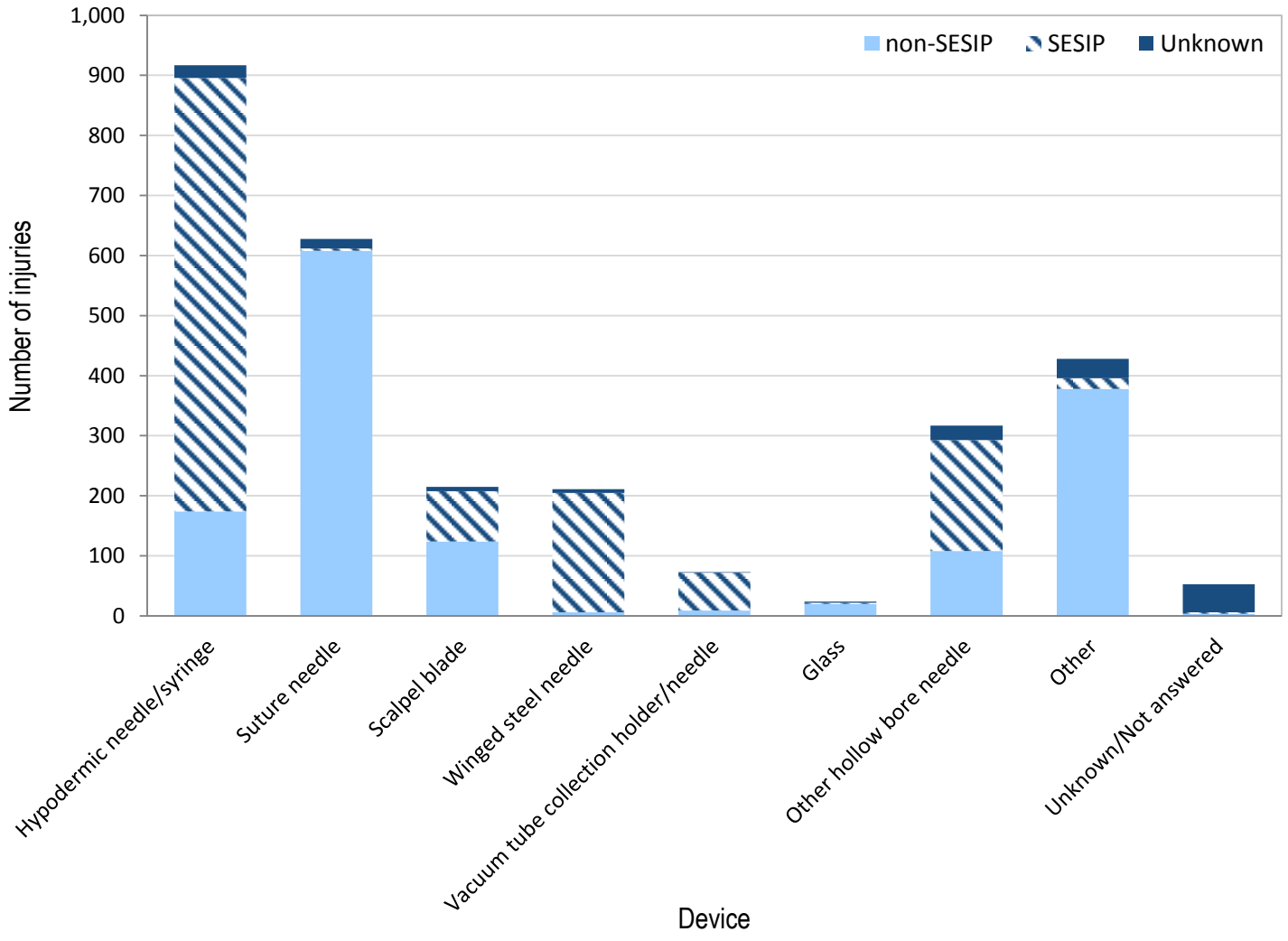


Table 6. Sharps injuries by procedure and SESIP, Massachusetts hospital workers, 2015

Procedure	Total		SESIP		Non-SESIP		Unknown	
	N	%	N	%	N	%	N	%
Injection procedures	**798**	**28**	**625**	**49**	**160**	**11**	**13**	**8**
Subcutaneous injection	628	22	516	40	104	7	8	5
Intramuscular injection	113	4	93	7	18	1	2	1
Other injections	57	2	16	1	38	3	3	2
Blood procedures	**354**	**12**	**299**	**23**	**40**	**3**	**15**	**10**
Percutaneous venous puncture	245	9	227	18	11	1	7	4
Percutaneous arterial puncture	39	1	35	3	3	<1	1	1
Finger stick / Heel stick	39	1	14	1	19	1	6	4
Other blood procedures	31	1	23	2	7	<1	1	1
Line procedures	**291**	**10**	**209**	**16**	**71**	**5**	**11**	**7**
To insert peripheral IV/set up heparin lock	93	3	84	7	8	1	1	1
To insert central line	43	2	16	1	26	2	1	1
Other line procedures	155	5	109	9	37	3	9	6
Other procedures	**1,423**	**50**	**146**	**11**	**1,159**	**81**	**118**	**75**
Total	**2,866**	**100**	**1,279**	**100**	**1,431**	**100**	**156**	**100**

Table 7. Sharps injuries by inclusion in prepackaged kit and hospital size, Massachusetts hospital workers, 2015

	All Hospitals 94 hospitals		Hospital Size^ Small 28 hospitals		Medium 52 hospitals		Large 14 hospitals	
	N	%	N	%	N	%	N	%
Device included in prepackaged kit								
Yes	505	18	31	16	219	23	255	15
No	2,165	76	138	73	666	69	1,361	80
Unknown/Not answered	196	7	21	11	87	9	88	5
Total	**2,866**	**100**	**190**	**100**	**972**	**100**	**1,704**	**100**

^Hospital size: small <101 licensed beds; medium =101-300 licensed beds; large >300 licensed beds

Figure 4. Sharps injuries involving devices from prepackaged kits by device and SESIP, Massachusetts hospital workers, 2015

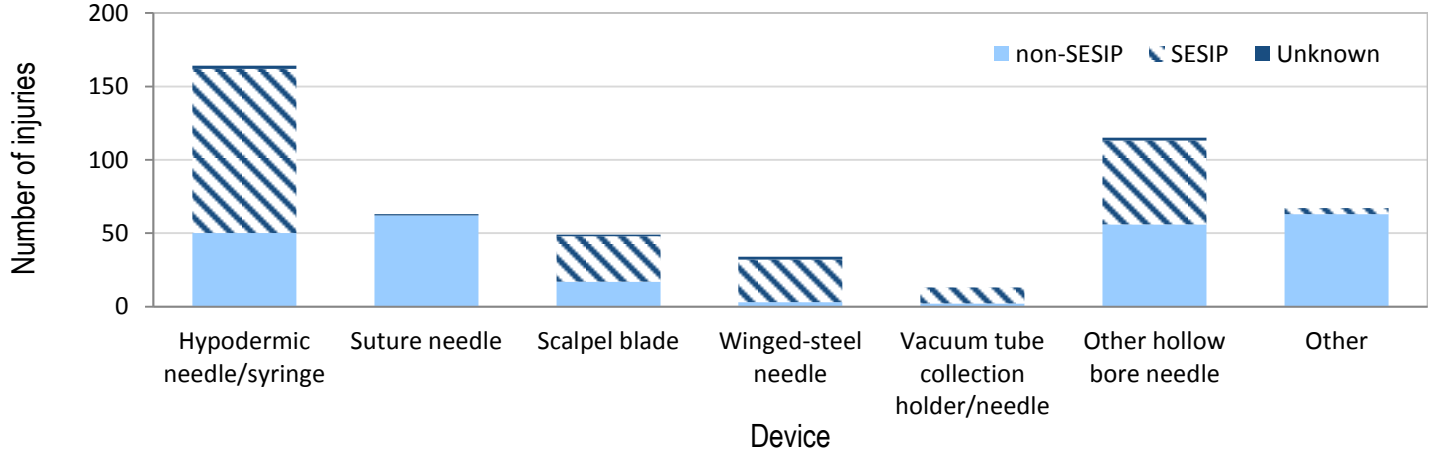


Table 8. Sharps injuries among hospital workers by when and how the injury occurred by hospital size, Massachusetts, 2015

	All Hospitals 94 hospitals		Hospital Size^ Small 28 hospitals		Medium 52 hospitals		Large 14 hospitals	
	N	%	N	%	N	%	N	%
Before use of the item	**36**	**1**	**1**	**1**	**15**	**2**	**20**	**1**
During use of the item	**1,273**	**44**	**89**	**47**	**413**	**42**	**771**	**45**
Suturing	331	12	17	9	87	9	227	13
Manipulate needle in patient	236	8	17	9	88	9	131	8
Patient moved and jarred device	230	8	19	10	107	11	104	6
Collision with worker or sharp	213	7	23	12	74	8	116	7
Access IV line	54	2	4	2	11	1	39	2
Handle/pass equipment	44	2	1	1	6	1	37	2
Recap needle	3	<1	0	0	1	<1	2	<1
Other / Unknown / Nonclassifiable	162	6	8	4	39	4	115	7
After use, before disposal	**1,116**	**39**	**74**	**39**	**382**	**39**	**660**	**39**
Activating injury protection mechanism	289	10	22	12	110	11	157	9
Handle/pass equipment	266	9	10	5	75	8	181	11
During clean-up	162	6	9	5	42	4	111	7
Collision with worker or sharp	120	4	6	3	38	4	76	4
Recap needle	82	3	6	3	37	4	39	2
Sharps injury prevention mechanism not activated	69	2	6	3	43	4	20	1
Device malfunction	48	2	10	5	12	1	26	2
Improper disposal	18	1	3	2	5	1	10	1
Other / Unknown / Nonclassifiable	47	1	2	1	12	2	33	2
During or after disposal of item	**296**	**10**	**15**	**8**	**117**	**12**	**164**	**10**
During sharps disposal	162	6	8	4	65	7	89	5
Improper Disposal	122	4	7	4	47	5	68	4
Collision with worker or sharp	7	<1	0	0	2	<1	5	<1
Sharps injury prevention mechanism not activated	1	<1	0	0	0	0	1	<1
Other / Unknown / Nonclassifiable	4	<1	0	0	3	<1	1	<1
Unknown / Not answered / Nonclassifiable	**145**	**5**	**11**	**6**	**45**	**5**	**89**	**5**
Total	**2,866**	**100**	**190**	**100**	**972**	**100**	**1,704**	**100**

^Hospital size: small<100 licensed beds; medium 101-300 licensed beds; large >300 licensed beds

Table 9. 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, 2015

Device	Total		When the Injury Occurred									
			Before use		During use		After use, Before Disposal*		During or after Disposal*		Unknown/ Non-classifiable	
	N	%	N	%	N	%	N	%	N	%	N	%
Hypodermic	174	100	2	1	46	26	90	52	29	17	7	4
IV Stylet	40	100	0	0	22	55	9	23	7	18	2	5
Vacuum Tube	9	100	0	0	2	22	4	44	2	22	1	11
Winged-Steele	6	100	0	0	2	33	2	33	2	33	0	0
Total	**229**	**100**	**2**	**1**	**72**	**31**	**105**	**46**	**40**	**17**	**10**	**4**

*SESIPs offer protection during the period after use. Injuries presented in this table that occurred after use (n=145) can be considered "preventable adverse events" – events that could have been prevented with the use of SESIPS.

Table 10. Sharps injuries by occupation (detailed), Massachusetts hospital workers, 2015

	N	%		N	%
Nurse	**1,080**	**38**	**Support Services**	**99**	**3**
RN or LPN	957	33	Housekeeper	60	2
Nurse assistant	35	1	Central supply	27	1
Nursing practitioner	29	1	Safety/security	5	<1
Patient care technician	27	1	Maintenance	3	<1
Nurse anesthetist	19	1	Attendant/orderly	2	<1
Nurse midwife	8	<1	Other ancillary staff	2	<1
Nursing student	4	<1			
Home health aide	1	<1	**Other Medical Staff**	**62**	**2**
			Medical assistant	59	2
Physician	**1,079**	**38**	Physical Therapist	2	<1
Intern/Resident	443	15	Other medical staff	1	<1
MD	310	11			
Fellow	100	3	**Dental Staff**	**17**	**1**
Physician Assistant	77	3	Dental assistant/tech	9	<1
Surgeon	59	2	Dentist	5	<1
Medical Student	55	2	Dental hygienist	3	<1
Anesthesiologist	30	1			
Radiologist	5	<1	**Other**	**46**	**2**
			Pharmacist	7	<1
Technician	**482**	**17**	Counselor/social worker	3	<1
OR/Surgical technician	199	7	EMT/paramedic	2	<1
Phlebotomist	100	3	Clerical/administrative	1	<1
Clinical lab technician	42	1	Dietician	1	<1
Radiologic technician	28	1	Other student	23	1
Respiratory therapist/ Tech	19	1	Other	9	<1
Morgue technician	3	<1			
Other technician	91	3			
			Total	**2,866**	**100**

Table 11. Sharps injuries by department (detailed), Massachusetts hospital workers, 2015

	N	%
Operating and Procedure Rooms	**1,259**	**44**
Operating room	944	33
Labor and delivery	93	3
Radiology	77	3
Cardiac catheterization laboratory	54	2
Hematology/oncology	34	1
Phlebotomy room	18	1
Endoscopy/bronchoscopy/cystoscopy	17	1
Dialysis	12	<1
Other procedure room	1	<1
Procedure room, unspecified	9	<1
Inpatient Units, other than ICU	**582**	**20**
Medical/surgical ward	482	17
Obstetrics/gynecology	25	1
Psychiatry ward	24	1
Pediatrics	14	<1
Nursery	14	<1
Patient room, ward unspecified	23	1
Emergency Department	**297**	**10**
Intensive Care Units	**236**	**8**
Intensive care unit	216	8
Post anesthesia care unit	20	<1
Outpatient Areas	**217**	**8**
Ambulatory care clinic	108	4
Dental clinic	26	1
Physician's office	18	1
Home health visit	11	<1
Other outpatient areas	54	2

	N	%
Laboratory	**103**	**4**
Histology/pathology	34	1
Morgue/autopsy room	7	<1
Clinical chemistry	4	<1
Blood bank	3	<1
Microbiology	3	<1
Hematology	1	<1
Other laboratory	30	1
Laboratory, unspecified	21	1
Other Areas	**168**	**6**
Central sterile supply	37	1
Dermatology	32	1
Exam room	21	1
Long term care	14	<1
Pain clinic	10	<1
Anesthesia	8	<1
Central trash area	6	<1
Rehabilitation unit	5	<1
Pharmacy	5	<1
Hospital grounds	1	<1
Detox unit	1	<1
Ambulance	1	<1
Other Location	27	1
Unknown/Not Answered	**4**	**<1**
Total	**2,866**	**100**

Table 12. Sharps injuries by device (detailed), Massachusetts hospital workers, 2015

	N	%
Hypodermic needles/syringe	**917**	**32**
Hypodermic needle attached to a disposable syringe	843	29
Prefilled cartridge syringe	34	1
Unattached hypodermic needle	28	1
Hypodermic Needle Attached to a non-disposable syringe	6	<1
Hypodermic needle attached to IV tubing	6	<1
Suture Needle	**628**	**22**
Curved suture needle	499	17
Straight suture needle	30	1
Suture needle, unspecified	99	3
Other Hollow Bore Needles	**317**	**11**
IV Stylet	148	5
Huber Needle	45	2
Spinal or epidural needle	25	1
Biopsy Needle	17	1
Intraosseous needle	5	<1
Other type of hollow bore needle	20	1
Hollow bore needle, unspecified	57	2
Scalpel Blade	**215**	**8**
Winged Steel Needle	**211**	**7**
Winged Steel needle attached to a vacuum tube collection holder	128	4
Winged Steele Needle	77	3
Winged Steele Needle attached to IV tubing	6	<1
Vacuum Tube Collection Holder/Needle	**73**	**3**
Vacuum tube collection holder/needle	44	2
Phlebotomy needle (other than winged steel needle)	29	<1
Glass	**24**	**1**
Specimen / Test / Vacuum tube	8	<1
Pipette	5	<1
Capillary tube	4	<1
Medication ampule / Vial / IV bottle	3	<1
Slide	2	<1
Other glass item	2	<1
Dental Device or item	**18**	**1**
Dental bur	6	<1
Scaler/curette	4	<1
Dental explorer	3	<1
Dental needle	1	<1
Other dental device or item	4	<1
Other	**410**	**14**
Wire	51	2
Lancet	47	2
Retractor	40	1
Electrode	31	1
Scissors	28	1
Cutting blade other than scalpel	24	1
Pin	20	1
Bovie electrocautery device	19	1
Forceps	18	1
Bone cutter	13	<1
Bone chip/chipped tooth	8	<1
Drill bit	7	<1
Staple	6	<1
Trocar	6	<1
Rod	1	<1
Tenaculum	1	<1
Elevator	1	<1
Other needle	7	<1
Other Type of Sharp Object	70	2
Needle, unspecified	12	<1
Unknown/Not Answered	**53**	**2**
Total	**2,866**	**100**

Table 13. Sharps injuries by procedure (detailed), Massachusetts hospital workers, 2015

	N	%
Injection	**798**	**28**
Subcutaneous injection	628	22
Intramuscular injection	113	4
Epidural/spiral anesthesia	22	1
Other injection	15	1
Injection, unspecified	20	1
Suturing	**633**	**22**
Suturing	626	22
Suture removal	7	<1
Blood Procedures	**354**	**12**
Percutaneous venous puncture	245	9
Percutaneous arterial puncture	39	1
Finger stick / heel stick	39	1
Dialysis / AV fistula site	9	<1
Draw blood from umbilical vessel	5	<1
Other blood procedure	6	<1
Blood procedure, unspecified	11	<1
Making the Incision	**292**	**10**
Making the incision	204	7
Cauterization	17	1
Other surgical procedure	44	2
Surgical procedure, unspecified	27	1

	N	%
Line Procedures	**291**	**10**
To insert a peripheral IV line or set up a heparin lock	93	3
To insert a central IV line	43	2
Draw blood from central or peripheral IV line or port	30	1
To insert an arterial line	24	1
Other injection into IV site/port	18	1
To flush heparin/saline	13	<1
To connect IV line	10	<1
Draw blood from arterial line	6	<1
Other line procedure	37	1
Line procedure, unspecified	17	1
To Obtain Body Fluid or Tissue Sample	**55**	**2**
Dental Procedures	**22**	**1**
Dental drilling	4	<1
Oral surgery	3	<1
Periodontal surgery	2	<1
Restorative	2	<1
Other dental	11	<1
Other	**268**	**9**
To obtain lab specimens	39	1
Transferring blood/body fluid to another container	21	1
Drilling	14	<1
Processing lab specimens	10	<1
Shaving	9	<1
Other procedure	154	5
Procedure, unspecified	21	1
Unknown/Not answered	**153**	**5**
Total	**2,866**	**100**

For all tables presented, percentages may not total 100% due to rounding.

Resources

MDPH OHSP……www.mass.gov/eohhs/gov/departments/dph/programs/community-health/ohsp/sharps

CDC Sharps Safety for Healthcare Settings: Workbook and Teaching Tools……...www.cdc.gov/sharpssafety

NIOSH Preventing Needlesticks and Sharps Injuries……..www.cdc.gov/niosh/topics/bbp/sharps.html

OSHA Bloodborne Pathogens and Needlestick Prevention……www.osha.gov/SLTC/bloodbornepathogens

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