



Contaminated Sharps Injuries 2018 Annual Report

Chapter 81, Texas Health and Safety Code

Texas Health and Human Services
Department of State Health Services



TEXAS
Health and Human
Services

Texas Department of
State Health Services

Table of Contents

Contaminated Sharps Injuries 2018 Annual Report	1
Table of Contents	2
Executive Summary	3
Methods	4
Population and Inclusion.....	4
Exclusion and Considerations	4
Descriptive Summary	4
Contaminated Sharps Injuries Overview	4
Table 1. Month of Sharps Injury Exposure by Public Health Region, Texas, 2018	4
Table 2. Time of Sharps Injury Exposure by Public Health Region, Texas, 2018	5
Table 3. Sharps Injury by Age Group, by Public Health Region, Texas, 2018	5
Table 4. Sharps Injury by Sex, by Public Health Region, Texas, 2018	5
Table 5. Sharps Injury by Sharp Type, by Public Health Region, Texas, 2018	5
Table 6. Sharps Brand by Public Health Region, Texas, 2018	6
Table 7. Original Intended Sharp Use by Public Health Region, Texas, 2018	6
Table 8. Sharps Injury Occurrence† by Public Health Region, Texas, 2018	6
Table 9. Sharps Injury Procedure by Public Health Region, Texas, 2018	7
Table 10. Sharps Injury Protection by Public Health Region, Texas, 2018	7
Table 11. Sharps Injury Protective Mechanism Activation by Public Health Region, Texas, 2018	7
Table 12. Sharps Injury Occurrence and Protective Mechanism Activation† by Public Health Region, Texas, 2018	7
Table 13. Injured Person Wearing Gloves by Public Health Region, Texas, 2018	8
Table 14. Injured Person Hepatitis B Vaccination by Public Health Region, Texas, 2018	8
Table 15. Sharps Disposal Container by Public Health Region, Texas, 2018.....	8
Table 16. Injured Person Received Exposure Control Training within Last 12 Months of Injury by Public Health Region, Texas, 2018	8
Table 17. Injured Body Part by Public Health Region, Texas, 2018	8
Table 18. Sharps Injury by Job Classification, by Public Health Region, Texas, 2018 ...	9
Table 19. Sharps Injury by Employment Status, by Public Health Region, Texas, 2018 .	9
Table 20. Sharps Injury by Location/Facility/Agency Type, by Public Health Region, Texas, 2018	9
Table 21. Sharps Injury by Work Area, by Public Health Region, Texas, 2018	9

Executive Summary

Sharps injuries are an occupational concern due to the bloodborne pathogen (e.g., Hepatitis B) risk to healthcare personnel. A sharps injury is any injury by a sharp (e.g., needle, scalpel), such as a cut, abrasion, and/or needlestick. To reduce bloodborne pathogen exposure, Texas adopted rules for sharps-related safe workplace practices, engineered devices, exposure protocols, and parameters for reporting and recording sharps injuries in an annual Sharps Injury Log; this report summarizes the 2018 Texas Sharps Injury Log.

Texas' sharps injury regulations are in the: 1) [Texas Bloodborne Pathogen Exposure Control Plan](#); and 2) [Texas Health and Safety Code, Chapter 81, Subchapter H](#). Sharps injury definitions and rules are in the: 1) [Texas Health and Safety Code, Chapter 81, Subchapter H](#); 2) [Texas Administrative Code, Title 25, Part 1, Chapter 96, Section 96.101, Definitions](#); and 3) [Texas Administrative Code, Title 25, Part 1, Chapter 96, Rule 96.401, Sharps Injury Log](#).

According to [Texas Health and Safety Code, Sec. 81.306](#), sharps exposure information must “be recorded in a written or electronic sharps injury log to be maintained by a governmental unit.” To comply, the Texas Department of State Health Services’ (DSHS) Healthcare Safety Unit, maintains a “Sharps Injury Log” of sharps injury information reported to the department (i.e., DSHS). Per [Texas Health and Safety Code, Sec. 81.302](#), this sharps reporting requirement applies only to Texas governmental units employing individuals who: “(1) provide services in a public or private facility providing healthcare-related services, including a home healthcare organization; or (2) otherwise have a risk of exposure to blood or other material potentially containing bloodborne pathogens in connection with exposure to sharps.”

[Texas Health and Safety Code, Sec. 81.306](#), requires the following information in the Sharps Injury Log (per injury incident): 1) exposure date and time; 2) sharp type and brand; 3) a description of the exposure incident, including A) employee’s job classification or title; B) exposure department or work area; C) the procedure the employee was performing at the time of the incident; D) how the incident occurred; E) the involved body part; and F) whether the sharp had engineered sharps injury protection, and if so, whether the protective mechanism was activated, and whether the injury occurred before, during or after activation of the protective mechanism.

[Texas Administrative Code, Title 25, Part 1, Chapter 96, Rule 96.401](#) requires the following in the Sharps Injury Log (per injury incident): 1) facility name and address; 2) chief administrative officer or designee’s name and phone number; 3) injury date and time; 4) injured employee’s age and sex; 5) sharp type and brand; 6) original intended sharp use; 7) whether injury occurred before, during, or after intended sharp use; 8) whether the exposure was during or after sharp use; 9) whether the device had engineered sharps injury protection; if yes, was the protective mechanism activated; and was the exposure incident before, during, or after protective mechanism activation; 10) whether the injured person wore gloves at the time of the injury; 11) whether the injured person completed a hepatitis B vaccination series; 12) whether a sharps container was readily available for sharp disposal; 13) whether the injured person received exposure control plan training within 12 months prior to the incident; 14) the involved body part; 15) the injured person’s job classification; 16) the injured person’s employment status; 17) sharps injury location/facility/agency; and the work area where injury occurred; and 18) a list of needleless systems and sharps with engineered sharps injury protection available for employees in the governmental unit.

For a complete list of Sharps Injury Log requirements, see [Texas Health and Safety Code, Sec. 81.306](#) and [Texas Administrative Code, Title 25, Part 1, Chapter 96, Rule 96.401](#). While Sec. 81.306 and Rule 96.401 are complementary, select terms vary between these two statutes (e.g., 81.306 includes less information requirements than Rule 96.401). The DSHS Sharps Injury Log includes a combination of elements from both statutes. This report summarizes data collected on the Sharps Injury Log excluding data that identifies the governmental unit or injured person.

In compliance with [Texas Health and Safety Code, Chapter 121](#), Texas public health is carried out by local and regional health departments. Sharps exposure incident forms are reported to the local health authority or DSHS Regional Office (if no local authority) by the facility's chief administrative officer or designee. The local or regional health authority reviews the form for completeness, then sends via U.S. or electronic mail to DSHS' Central Office for inclusion in Texas' Sharps Injury Log.

Methods

Population and Inclusion

This report's data were submitted in 2018 by Texas governmental entities on behalf of employees with a sharps injury. According to [Texas Administrative Code, Chapter 96, Section 96.201](#) "a governmental unit includes but is not limited to hospital districts hospitals, city hospitals, county hospitals, hospital authority hospitals, DSHS regions and hospitals, other state hospitals and state supported living centers, community mental health and intellectual disability centers, Texas Juvenile Justice Department, Texas Department of Criminal Justice, locally or state-funded university student infirmaries, public school district clinics, emergency medical services, locally or state-funded long term care facilities, and blood banks." Data are per Public Health Region (PHR) and Texas overall.

Exclusion and Considerations

There were 876 sharps injuries reported in 2018, with four uncontaminated injuries, leaving 872 total. Uncontaminated sharps injuries before sharp use for its intended purpose were excluded due to no bloodborne pathogen risk. Sharps injuries and/or contaminated sharps injuries from private healthcare facilities were excluded because Texas law does not require private facility reporting.

Sharps injuries tend to be underreported, so this report likely underestimates the total 2018 Texas sharps injuries in governmental units. The total number of times sharps were used in each facility was not reported, so the injury rate per facility type, work area, brand, Public Health Region, and so forth cannot be assessed (no known denominator). Also, it is not possible to determine whether injuries corresponded with brand, as more injuries with one brand could be due to it being the most widely used sharps brand in the reporting facility.

Descriptive Summary

Contaminated Sharps Injuries Overview

Table 1. Month of Sharps Injury Exposure by Public Health Region, Texas, 2018

Public Health Region									
Month	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
January	8	15	0	41	3	11	1	0	79
February	9	12	1	32	4	15	7	1	81
March	13	12	0	49	0	18	3	0	95
April	6	3	1	32	3	18	2	0	65
May	8	5	0	34	1	20	7	0	75
June	6	11	0	25	1	17	0	0	60
July	9	10	0	13	0	8	4	0	44
August	11	9	2	12	1	13	3	0	51
September	8	5	0	29	2	11	1	0	56
October	10	12	1	30	5	15	3	0	76
November	9	7	0	24	2	12	5	0	59
December	7	7	0	28	2	23	3	0	70
Not reported	17	7	0	22	3	10	2	0	61
Total	121	115	5	371	27	191	41	1	872

Table 2. Time of Sharps Injury Exposure by Public Health Region, Texas, 2018

Public Health Region									
Time	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
0000 – 1159	54	59	1	173	8	56	18	0	369
1200 – 2359	59	53	4	187	18	77	23	1	422
Not reported	8	3	0	11	1	58	0	0	81
Total	121	115	5	371	27	191	41	1	872

Table 3. Sharps Injury by Age Group, by Public Health Region, Texas, 2018

Public Health Region									
Age group (yrs)	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
0 - 18	0	1	0	0	0	0	0	0	1
19 - 25	17	21	0	58	5	16	6	0	123
26 - 35	28	39	3	173	8	95	14	1	361
36 - 45	12	25	1	80	3	35	8	0	164
46 - 55	5	8	0	27	5	19	9	0	73
56 - 65	2	7	1	18	2	9	3	0	42
66+	0	3	0	0	1	4	0	0	8
Unknown/Not reported	57	11	0	15	3	13	1	0	100
Total	121	115	5	371	27	191	41	1	872

Table 4. Sharps Injury by Sex, by Public Health Region, Texas, 2018

Public Health Region									
Sex	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Female	62	76	3	241	21	129	31	1	564
Male	49	37	2	120	5	56	10	0	279
Not reported	10	2	0	10	1	6	0	0	29
Total	121	115	5	371	27	191	41	1	872

Table 5. Sharps Injury by Sharp Type, by Public Health Region, Texas, 2018

Public Health Region									
Device type	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Syringe/needle, all types	45	48	5	144	10	95	19	1	367
Suture needle	8	18	0	71	1	41	5	0	144
Winged steel needle/butterfly	2	6	0	17	4	9	3	0	41
Scalpel	7	7	0	33	2	8	0	0	57
IV catheter/IV	1	8	0	3	6	5	1	0	24
Other†	53	27	0	96	4	33	12	0	225
Not reported	5	1	0	7	0	0	1	0	14
Total	121	115	5	371	27	191	41	1	872

†Blood gas syringe, lancet/finger stick, arterial catheter introducer needle, vacuum tube blood holder, pre-filled syringe, central line catheter needle, other vascular catheter needle, unattached hypodermic needle, bone/tooth chip, surgical instruments (e.g., drill, retractor, bone/skin hook, clamp, bone cutter, pickup/forcep, staple/steel suture, Huber needle, microtome blade, pin, electrocautery device, scissors, razor), and/or glass items (e.g., specimen or capillary tube, glass slide).

Table 6. Sharps Brand by Public Health Region, Texas, 2018

Public Health Region									
Brand	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Becton Dickinson (BD)†	15	10	0	8	5	7	4	0	49
Smiths Medical	0	4	0	1	0	5	1	0	11
Other*	34	24	1	30	11	5	10	1	116
Not reported	72	77	4	332	11	174	26	0	696
Total	121	115	5	371	27	191	41	1	872

†Includes multiple types by this brand; *Includes Monocryl, Accu-Chek, Prolene, Bard, Beaver Blade, Covidien, Ethicon, Fisher, Greiner Bio-One, Jelco, McKesson, Medline, Monoject, Vacuette, and/or Watson.

Table 7. Original Intended Sharp Use by Public Health Region, Texas, 2018

Public Health Region									
Original use	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Injection*	28	33	1	68	8	66	8	1	213
Suturing skin/ deep tissues	22	13	1	57	1	42	5	0	141
Drawing venous blood sample	5	11	0	21	4	19	6	0	66
Cutting	10	13	0	21	1	8	0	0	53
Start IV line or heparin lock	2	9	0	13	6	8	1	0	39
Other†	47	33	2	185	6	42	20	0	335
Not reported	7	3	1	6	1	6	1	0	25
Total	121	115	5	371	27	191	41	1	872

*Intramuscular, subcutaneous, intradermal, other injection through skin; †Connect to intravenous (IV) line, body fluid or tissue sample, finger or heel stick, draw arterial blood sample, heparin or saline flush, dialysis, tattoo, remove central line/port-o-catheter, other injection or aspiration, drilling, wiring, electrocautery, and/or dental (e.g., extraction, hygiene, orthodontic, periodontal, restorative).

Table 8. Sharps Injury Occurrence† by Public Health Region, Texas, 2018

Public Health Region									
Time	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Before*	0	0	0	0	0	0	0	0	0
During	55	33	1	88	5	47	11	0	240
After	48	75	3	265	20	128	30	1	570
Not reported	18	7	1	18	2	16	0	0	62
Total	121	115	5	371	27	191	41	1	872

†Occurrence captures if injury happened before, during, or after sharps use for original purpose;

*Uncontaminated sharps injuries before sharp used for its intended purpose are excluded due to no bloodborne pathogen transmission risk.

Table 9. Sharps Injury Procedure by Public Health Region, Texas, 2018

Public Health Region									
Procedure	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Between steps of multi-step process	11	10	1	146	6	40	6	0	220
Suturing	12	10	1	23	1	24	2	0	73
Activating safety device	14	8	0	15	3	28	1	0	69
Patient moved during procedure	6	18	1	20	1	14	3	0	63
Inappropriate place (trash, bed linen)	3	8	0	14	2	19	2	0	48
Interaction with another person	10	12	0	18	2	4	2	0	48
Other†	22	43	1	105	9	44	23	1	248
Not reported	43	6	1	30	3	18	2	0	103
Total	121	115	5	371	27	191	41	1	872

†Use of intravenous (IV)/central line, found in inappropriate place (e.g., trash, bed linen), laboratory process, disassembling device or equipment, device malfunction, device pierced side of sharps container, recapping, unsafe practice, use of sharps container, and preparation for reuse of device or equipment.

Table 10. Sharps Injury Protection by Public Health Region, Texas, 2018

Public Health Region									
Injury protection	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Yes	40	39	2	94	19	64	19	0	277
No	60	49	1	95	6	102	20	1	334
Do not know	10	23	1	172	0	20	2	0	228
Not reported	11	4	1	10	2	5	0	0	33
Total	121	115	5	371	27	191	41	1	872

Table 11. Sharps Injury Protective Mechanism Activation by Public Health Region, Texas, 2018

Public Health Region									
Activated†	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Yes	16	10	0	31	4	18	9	0	88
No	64	53	3	111	16	52	25	1	325
Do not know	12	18	1	152	0	11	1	0	195
Not reported/ not applicable	29	34	1	77	7	110	6	0	264
Total	121	115	5	371	27	191	41	1	872

†Some sharps (disposable needles, syringes), have a component or attachment to protect the user from injury.

Table 12. Sharps Injury Occurrence and Protective Mechanism Activation† by Public Health Region, Texas, 2018

Public Health Region									
Time	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Before	18	30	2	62	8	29	6	0	155
During	41	17	0	76	7	24	11	0	176
After	11	10	0	31	4	9	10	0	75
Not reported/ not applicable	51	58	3	202	8	129	14	1	466
Total	121	115	5	371	27	191	41	1	872

†Captures if sharps injury occurred before, during, or after protective mechanism activation.

Table 13. Injured Person Wearing Gloves by Public Health Region, Texas, 2018

Public Health Region									
Wearing gloves	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Yes	111	105	4	361	21	171	39	0	812
No	2	5	0	5	4	4	2	1	23
Not reported	8	5	1	5	2	16	0	0	37
Total	121	115	5	371	27	191	41	1	872

Table 14. Injured Person Hepatitis B Vaccination by Public Health Region, Texas, 2018

Public Health Region									
Vaccinated	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Yes	109	100	4	343	25	178	38	0	797
No	2	1	0	5	0	5	0	1	14
Do not know	5	9	0	20	1	3	3	0	41
Not reported	5	5	1	3	1	5	0	0	20
Total	121	115	5	371	27	191	41	1	872

Table 15. Sharps Disposal Container by Public Health Region, Texas, 2018

Public Health Region									
Container	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Yes	113	104	4	345	24	180	40	1	811
No	2	4	0	3	1	4	1	0	15
Not reported	6	7	1	23	2	7	0	0	46
Total	121	115	5	371	27	191	41	1	872

Table 16. Injured Person Received Exposure Control Training within Last 12 Months of Injury by Public Health Region, Texas, 2018

Public Health Region									
Training	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Yes	90	94	3	338	25	90	39	1	680
No	5	9	0	12	0	3	1	0	30
Not reported	26	12	2	21	2	98	1	0	162
Total	121	115	5	371	27	191	41	1	872

Table 17. Injured Body Part by Public Health Region, Texas, 2018

Public Health Region									
Body part	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Upper extremity	113	108	4	359	26	188	41	1	840
Lower extremity	2	2	0	5	0	1	0	0	10
Torso	0	1	0	1	0	0	0	0	2
Face/head/neck	0	2	0	0	0	0	0	0	2
Not reported	6	2	1	6	1	2	0	0	18
Total	121	115	5	371	27	191	41	1	872

Table 18. Sharps Injury by Job Classification, by Public Health Region, Texas, 2018

Public Health Region									
Job classification	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Registered nurse	32	37	2	91	4	48	19	1	234
Physician/surgeon	13	10	1	59	4	12	1	0	100
Intern/resident	37	9	0	25	0	56	0	0	127
Operating room/ surgical technician	8	11	0	19	1	12	3	0	54
Dental student	1	0	0	37	0	0	0	0	38
Other†	25	47	1	134	17	61	18	0	303
Not reported	5	1	1	6	1	2	0	0	16
Total	121	115	5	371	27	191	41	1	872

†Medical/nursing student, physical/respiratory therapist, licensed vocational nurse, housekeeping, emergency medical technician/paramedic, firefighter, law enforcement, fellow, radiology technician, phlebotomist, clinical lab technician, nursing/medical or physician assistant, dental staff, school personnel, or nurse practitioner.

Table 19. Sharps Injury by Employment Status, by Public Health Region, Texas, 2018

Public Health Region									
Status	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Employee	112	97	4	314	24	165	36	1	753
Student	2	3	0	50	2	0	2	0	59
Contractor	1	3	0	1	0	7	2	0	14
Other	0	11	0	4	0	4	1	0	20
Not reported	6	1	1	2	1	15	0	0	26
Total	121	115	5	371	27	191	41	1	872

Table 20. Sharps Injury by Location/Facility/Agency Type, by Public Health Region, Texas, 2018

Public Health Region									
Facility type	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Hospital	100	83	3	282	17	156	27	0	668
Clinic	7	10	0	31	4	25	4	0	81
School/college	1	4	1	27	2	1	1	1	38
Others†	5	17	0	29	3	7	3	0	64
Not reported	8	1	1	2	1	2	6	0	21
Total	121	115	5	371	27	191	41	1	872

†Surgical or outpatient treatment center, emergency medical services (EMS)/fire/police, dental, residential or correctional facility, freestanding laboratory, medical examiner, and/or home health.

Table 21. Sharps Injury by Work Area, by Public Health Region, Texas, 2018

Public Health Region									
Work area	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Surgery/operating room	44	26	0	118	3	56	3	0	250
Patient room	16	11	0	77	3	1	4	0	112
Emergency department	12	16	3	17	9	24	5	0	86
Critical care unit	10	11	0	5	0	21	6	0	53
Medical/surgical unit	7	4	0	9	4	20	6	0	50
Medical outpatient clinic	3	9	0	26	0	8	1	0	47
Procedure room	3	3	1	24	1	1	3	0	36
Other†	19	33	0	89	6	55	13	1	216
Not reported	7	2	1	6	1	5	0	0	22
Total	121	115	5	371	27	191	41	1	872

†Ambulance, autopsy/pathology, dental clinic, dialysis room/center, floor/unit (not patient room), infirmary, jail unit, labor and delivery/gynecology unit, pediatrics, nursery, radiology department, pre-operative or post-anesthesia recovery area, rescue setting, endoscopy/bronchoscopy, and/or sterile processing.