



Contaminated Sharps Injuries 2021 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

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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 2021 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 2021 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 470 sharps injuries reported in 2021, with three uncontaminated injuries, leaving 467 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 number of 2021 Texas sharps injuries in governmental units. The total number of times sharps were used in each facility was not reported, so the rate of injuries 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 Injury Exposure by Public Health Region, Texas, 2021

Public Health Region									
Month	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
January	2	5	0	12	2	4	4	0	29
February	9	10	0	7	1	2	3	0	32
March	7	3	0	24	1	9	2	1	47
April	4	9	0	23	2	15	0	1	54
May	5	5	0	18	3	19	1	1	52
June	5	10	0	21	1	9	3	0	49
July	3	6	0	4	0	13	1	0	27
August	8	9	0	2	2	20	0	0	41
September	3	9	0	0	0	13	0	0	25
October	3	8	0	0	1	9	0	0	21
November	1	9	0	3	0	21	0	0	34
December	1	4	0	20	1	18	0	0	44
Not reported	3	0	0	9	0	0	0	0	12
Total	54	87	0	143	14	152	14	3	467

Table 2. Time of Sharps Injury Exposure by Public Health Region, Texas, 2021

Public Health Region									
Time	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
0000 – 1159	27	39	0	59	7	32	9	2	175
1200 – 2359	21	43	0	75	7	18	5	1	170
Not reported	6	5	0	9	0	102	0	0	122
Total	54	87	0	143	14	152	14	3	467

Table 3. Sharps Injury by Age Group, by Public Health Region, Texas, 2021

Public Health Region									
Age group (yrs)	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
0 to 18	0	0	0	0	0	0	0	0	0
19-25	3	8	0	6	0	18	3	2	40
26-35	11	27	0	69	9	73	6	0	195
36-45	2	12	0	22	2	27	2	0	67
46-55	1	13	0	22	1	8	2	0	47
56-65	1	5	0	8	0	5	1	0	20
66+	0	2	0	1	0	0	0	0	3
Unknown/ Not reported	36	20	0	15	2	21	0	1	95
Total	54	87	0	143	14	152	14	3	467

Table 4. Sharps Injury by Sex, by Public Health Region, Texas, 2021

Public Health Region									
Sex	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Female	24	60	0	96	9	96	9	3	297
Male	28	21	0	40	5	50	5	0	149
Not reported	2	6	0	7	0	6	0	0	21
Total	54	87	0	143	14	152	14	3	467

Table 5. Sharps Injury by Sharp Type, by Public Health Region, Texas, 2021

Public Health Region									
Device type	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Syringe/needle, all types	22	36	0	63	9	68	5	1	204
Suture needle	7	12	0	36	1	36	4	0	96
Winged steel needle/butterfly	1	8	0	5	1	0	1	0	16
IV catheter/IV	1	7	0	2	1	9	0	0	20
Scalpel	5	1	0	9	0	6	1	0	22
Other†	18	22	0	25	1	33	2	2	103
Not reported	0	1		3	1	0	1	0	6
Total	54	87	0	143	14	152	14	3	467

†Blood gas syringe, spinal/epidural needle, lancet/finger stick, surgical instruments (e.g., trocar, drill, retractor, clamp, bone cutter, staple/steel suture, microtome blade) and/or glass items (e.g., glass pipette, glass slide).

Table 6. Sharps Brand by Public Health Region, Texas, 2021

Public Health Region									
Brand	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Becton Dickinson (BD)†	2	7	0	2	2	1	0	0	14
Other††	3	6	0	5	4	1	0	0	19
Not reported	49	74	0	136	8	150	14	3	434
Total	54	87	0	143	14	152	14	3	467

†Includes multiple types by this brand. *Includes Bard, Coviden, McKesson, Monojet, Smiths Medical and/or Vanish Point.

Table 7. Original Intended Sharp Use by Public Health Region, Texas, 2021

Public Health Region									
Original use	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Injection*	14	39	0	37	4	62	3	1	160
Suturing skin	11	8	0	33	0	36	3	0	91
Drawing venous blood sample	3	13	0	5	4	6	2	0	33
Cutting	7	1	0	10	0	10	1	0	29
Other†	18	24	0	53	6	30	3	2	136
Not reported	1	2	0	5	0	8	2	0	18
Total	54	87	0	143	14	152	14	3	467

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

Table 8. Sharps Injury Occurrence† by Public Health Region, Texas, 2021

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	20	26	0	57	0	17	3	0	123
After	26	58	0	84	13	130	11	3	325
Not reported	8	3	0	2	1	5	0	0	19
Total	54	87	0	143	14	152	14	3	467

†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, 2021

Public Health Region									
Procedure	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Between steps of multi-step process	14	12	0	62	0	57	2	1	148
Suturing	9	7	0	17	0	28	3	0	64
Patient moved during procedure	3	8	0	8	1	8	1	0	29
Activating safety device	5	10	0	5	1	15	0	1	37
Interaction with another person	0	10	0	8	0	1	0	0	19
Inappropriate Place (trash, bed linen)	0	2	0	2	1	5	2	0	12
Other†	13	28	0	28	7	20	6	1	103
Not reported	10	10	0	13	4	18	0	0	55
Total	54	87	0	143	14	152	14	3	467

†Use of intravenous (IV)/central line, unsafe practice, recapping, laboratory process, disassembling device or equipment, device malfunction, use of sharps container, and preparation for reuse of device or equipment.

Table 10. Sharps Injury Protection by Public Health Region, Texas, 2021

Public Health Region									
Injury protection	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Yes	17	41	0	50	7	71	5	2	193
No	31	33	0	76	5	75	6	1	227
Do not know	3	6	0	15	2	5	3	0	34
Not reported	3	7	0	2	0	1	0	0	13
Total	54	87	0	143	14	152	14	3	467

Table 11 Sharps Injury Protective Mechanism Activation by Public Health Region, Texas, 2021

Public Health Region									
Mechanism activated†	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Yes	6	10	0	17	5	16	2	1	57
No	29	38	0	66	2	98	5	0	238
Do not know	4	6	0	20	3	6	4	2	45
Not reported	15	33	0	40	4	32	3	0	127
Total	54	87	0	143	14	152	14	3	467

†Some sharps, (disposable needles and 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, 2021

Public Health Region									
Time	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Before	6	21	0	22	1	52	2	1	105
During	8	15	0	17	2	6	0	0	48
After	3	13	0	13	3	15	5	2	54
Not reported/not applicable	37	38	0	91	8	79	7	0	260
Total	54	87	0	143	14	152	14	3	467

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

Table 13. Injured Person Wearing Gloves by Public Health Region, Texas, 2021

Public Health Region									
Wearing gloves	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Yes	50	78	0	139	11	146	13	3	440
No	0	5	0	1	2	6	1	0	15
Not reported	4	4	0	3	1	0	0	0	12
Total	54	87	0	143	14	152	14	3	467

Table 14. Injured Person Hepatitis B Vaccination by Public Health Region, Texas, 2021

Public Health Region									
Vaccinated	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Yes	48	77	0	130	9	132	10	2	408
No	0	2	0	4	2	15	3	0	26
Do not know	3	4	0	8	0	4	1	1	21
Not reported	3	4	0	1	3	1	0	0	12
Total	54	87	0	143	14	152	14	3	467

Table 15. Sharps Container Available for Sharps Disposal by Public Health Region, Texas, 2021

Public Health Region									
Sharps container	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Yes	52	81	0	140	13	150	14	3	453
No	0	2	0	1	0	1	0	0	4
Not reported	2	4	0	2	1	1	0	0	10
Total	54	87	0	143	14	152	14	3	467

Table 16. Injured Person Received Exposure Control Training within Last 12 Months of Injury by Public Health Region, Texas, 2021

Public Health Region									
Training	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Yes	41	75	0	135	10	93	10	3	367
No	6	2	0	2	2	4	4	0	20
Not reported	7	10	0	6	2	55	0	0	80
Total	54	87	0	143	14	152	14	3	467

Table 17. Body Part Involved in Injury by Public Health Region, Texas, 2021

Public Health Region									
Body part	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Upper extremity	53	85	0	140	12	152	14	3	459
Torso (front or back)	0	0	0	1	0	0	0	0	1
Not reported	1	2	0	2	2	0	0	0	7
Total	54	87	0	143	14	152	14	3	467

Table 18. Sharps Injury by Job Classification by Public Health Region, Texas, 2021

Public Health Region									
Job classification	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Registered nurse	5	37	0	36	1	41	2	1	123
Intern/resident	24	3	0	25	0	51	1	0	104
Attending physician/surgeon	9	10	0	27	0	9	2	0	57
Operating room/surgical technician	1	9	0	6	0	6	2	0	24
Other†	15	27	0	47	12	42	7	2	152
Not reported	0	1	0	2	1	3	0	0	7
Total	54	87	0	143	14	152	14	3	467

†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 student, school personnel, or nurse practitioner.

Table 19. Sharps Injury by Employment Status, by Public Health Region, Texas, 2021

Public Health Region									
Employment status	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Employee	44	76	0	126	11	138	12	2	409
Other	8	8	0	12	0	9	2	0	39
Student	1	1	0	0	2	1	0	1	6
Not reported	1	2	0	5	1	4	0	0	13
Total	54	87	0	143	14	152	14	3	467

Table 20. Sharps Injury by Location/Facility/Agency Type by Public Health Region, Texas, 2021

Public Health Region									
Facility type	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Hospital	45	71	0	119	3	125	10	1	374
Clinic	8	5	0	12	3	21	2	0	51
Other†	1	2	0	8	5	5	2	2	25
Not reported	0	1	0	3	0	0	0	0	4
Total	54	95	0	144	17	153	14	3	480

†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, 2021

Public Health Region									
Work area	1	2/3	4/5N	6/5S	7	8	9/10	11	Texas
Surgery/operating room	24	22	0	57	0	39	4	0	146
Patient room	5	12	0	24	1	25	2	0	69
Emergency department	9	11	0	3	1	15	1	0	40
Critical care unit	4	2	0	2	1	3	0	0	12
Medical outpatient clinic	0	6	0	7	2	22	2	0	39
Medical surgical unit	2	4	0	4	0	6	0	0	16
Procedure room	6	1	0	16	0	3	0	0	26
Other†	4	25	0	26	8	36	5	3	107
Not reported	0	4	0	4	1	3	0	0	12
Total	54	87	0	143	14	152	14	3	467

†Ambulance, autopsy/pathology, dental clinic, dialysis room/center, labor and delivery/gynecology unit, laboratory, pediatrics, nursery, radiology department, pre-operative or post-anesthesia recovery area, seclusion or psychiatric unit, and sterile processing.