

Appendix Table 1: Distribution of the field-position of the first-mentioned drug overdose code* in each discharge**A. Hospitalizations**

Field Position	State 1	State 2	State 3	State 4	State 5	State 6	State 7	State 8	Median	Average	Average without State 3
1	76.8%	66.9%	70.1%	66.2%	75.7%	69.0%	67.8%	72.1%	69.5%	70.6%	70.7%
2-5	7.4%	13.5%	15.9%	14.8%	9.0%	23.3%	15.4%	14.7%	14.7%	14.2%	14.0%
6-10	7.5%	10.4%	10.5%	11.5%	10.1%	7.7%	10.2%	7.9%	10.2%	9.5%	9.3%
11-15	4.6%	5.6%	2.4%	4.9%	4.8%	0.0%	4.0%	3.3%	4.3%	3.7%	3.9%
16+	3.8%	3.5%	1.1%	2.7%	0.4%	0.0%	2.6%	2.0%	2.3%	2.0%	2.1%

B. Emergency Department Visits

Field Position	State 1	State 2	State 3	State 4	State 5	Median	Average	Average without State 3
1	80.7%	88.0%	79.7%	69.8%	81.1%	80.7%	79.9%	79.9%
2-5	17.8%	11.5%	18.1%	21.9%	18.0%	18.0%	17.5%	17.3%
6-10	1.2%	0.4%	1.5%	5.5%	0.8%	1.2%	1.9%	2.0%
11-15	0.2%	0.1%	0.5%	1.8%	0.1%	0.2%	0.5%	0.5%
16+	0.1%	0.0%	0.2%	1.0%	0.0%	0.1%	0.3%	0.3%

*Drug overdose diagnoses include ICD-10-CM codes starting with T36 – T50 including unintentional, intentional harm, assault, or undetermined intents, and initial, subsequent, or missing encounter type.

Appendix Table 2: Top chapters of primary diagnosis for records with a drug overdose diagnosis code* in any field**A. Hospitalizations**

ICD-10-CM Chapter Title	State 1	State 2	State 3	State 4	State 5	State 6	State 7	State 8	Median	Average	Average without State 3
A00-B99: Infectious and parasitic diseases	3.2%	3.3%	4.4%	3.4%	4.1%	1.1%	3.4%	2.4%	3.3%	3.2%	3.0%
C00-D49: Neoplasms	0.1%	0.0%	0.2%	0.4%	0.3%	0.3%	0.3%	0.2%	0.2%	0.2%	0.2%
D50-D89: Diseases of the blood and blood-forming organs, certain immunity disorders	0.1%	0.5%	0.3%	0.6%	0.3%	0.1%	0.3%	0.3%	0.3%	0.3%	0.3%
E00-E89: Endocrine, nutritional and metabolic diseases	0.8%	0.6%	0.9%	0.9%	0.9%	1.1%	0.7%	0.7%	0.8%	0.8%	0.8%
F01-F99: Mental disorders	7.1%	14.2%	12.0%	11.1%	3.8%	20.2%	14.5%	13.3%	12.7%	12.0%	12.0%
G00-G99: Diseases of the nervous system	1.3%	0.9%	1.5%	1.2%	1.0%	0.7%	1.2%	0.9%	1.1%	1.1%	1.0%
H00-H59: Diseases of the eye and adnexa	0.0%	0.0%	0.0%	0.0%	suppressed	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
H60-H95: Diseases of the ear and mastoid process	0.0%	0.0%	0.0%	suppressed	suppressed	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
I00-I99: Diseases of the circulatory system	1.9%	2.5%	1.6%	3.8%	2.4%	0.8%	2.2%	1.9%	2.0%	2.1%	2.2%
J00-J99: Diseases of the respiratory system	2.0%	4.2%	2.5%	3.4%	3.8%	2.0%	3.0%	2.5%	2.8%	2.9%	3.0%
K00-K95: Diseases of the digestive system	1.1%	1.4%	1.4%	2.0%	1.5%	1.1%	1.2%	1.0%	1.3%	1.3%	1.3%
L00-L99: Diseases of the skin and subcutaneous tissue	0.1%	0.3%	0.2%	0.3%	0.5%	0.2%	0.2%	0.2%	0.2%	0.3%	0.3%
M00-M99: Diseases of the musculoskeletal system and connective tissue	0.7%	0.5%	0.6%	0.9%	0.5%	0.3%	0.4%	0.4%	0.5%	0.5%	0.5%
N00-N99: Diseases of the genitourinary system	1.2%	1.6%	1.3%	2.6%	1.9%	0.8%	1.6%	1.0%	1.4%	1.5%	1.5%
O00-O9B: Complications of pregnancy, childbirth, and the puerperium	0.3%	0.0%	0.4%	0.5%	0.3%	0.3%	0.5%	0.5%	0.4%	0.3%	0.3%
P00-P96: Certain conditions originating in the perinatal period	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Q00-Q99: Congenital malformations, deformations and chromosomal anomalies	0.0%	0.0%	0.0%	suppressed	suppressed	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
R00-R99: Symptoms, signs, and ill-defined conditions	0.6%	1.4%	0.7%	1.0%	0.9%	0.6%	0.5%	0.7%	0.7%	0.8%	0.8%
S00-T88: Injury, poisoning, and certain other consequences of external causes	79.2%	68.7%	71.7%	68.1%	77.7%	70.4%	69.9%	74.0%	71.1%	72.5%	72.6%
V00-Y99: External causes of morbidity	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Z00-Z99: Factors influencing health status and contact with health services	0.1%	0.0%	0.3%	0.2%	0.1%	0.0%	0.1%	0.0%	0.1%	0.1%	0.1%
Other Chapters (not top 3)	10.5%	13.0%	11.8%	17.1%	14.4%	7.4%	12.2%	10.3%	12.0%	12.1%	12.1%

*Drug overdose diagnoses include ICD-10-CM code beginning with T36 – T50 including unintentional, intentional harm, assault, or undetermined intents, and initial, subsequent, or missing encounter type.

Appendix Table 2: Top chapters of primary diagnosis for records with a drug overdose diagnosis code* in any field (cont.)**B. Emergency Department Visits**

ICD-10-CM Chapter Title	State 1	State 2	State 3	State 4	State 5	Median	Average	Average without State 3
A00-B99: Infectious and parasitic diseases	0.1%	0.1%	0.9%	1.4%	0.1%	0.1%	0.5%	0.4%
C00-D49: Neoplasms	0.0%	suppressed	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
D50-D89: Diseases of the blood and blood-forming organs, certain immunity disorders	0.0%	0.0%	0.1%	0.2%	0.2%	0.1%	0.1%	0.1%
E00-E89: Endocrine, nutritional and metabolic diseases	0.4%	0.4%	0.6%	0.6%	0.6%	0.6%	0.5%	0.5%
F01-F99: Mental disorders	7.5%	2.8%	6.7%	9.9%	4.4%	6.7%	6.3%	6.2%
G00-G99: Diseases of the nervous system	0.0%	0.5%	0.6%	0.8%	0.9%	0.6%	0.6%	0.5%
H00-H59: Diseases of the eye and adnexa	0.5%	0.0%	0.1%	0.0%	0.0%	0.0%	0.1%	0.1%
I00-I99: Diseases of the circulatory system	0.3%	0.7%	0.6%	2.4%	0.8%	0.7%	1.0%	1.1%
J00-J99: Diseases of the respiratory system	0.4%	0.7%	0.6%	1.6%	0.8%	0.7%	0.8%	0.9%
K00-K95: Diseases of the digestive system	0.3%	0.2%	0.5%	1.0%	0.4%	0.4%	0.5%	0.5%
L00-L99: Diseases of the skin and subcutaneous tissue	0.3%	0.3%	0.3%	0.3%	0.2%	0.3%	0.3%	0.3%
M00-M99: Diseases of the musculoskeletal system and connective tissue	0.4%	0.3%	0.3%	0.5%	0.2%	0.3%	0.3%	0.3%
N00-N99: Diseases of the genitourinary system	0.3%	0.3%	0.5%	1.4%	0.4%	0.4%	0.6%	0.6%
O00-O9B: Complications of pregnancy, childbirth, and the puerperium	0.3%	0.3%	0.3%	0.4%	0.3%	0.3%	0.3%	0.3%
Q00-Q99: Congenital malformations, deformations and chromosomal anomalies	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
R00-R99: Symptoms, signs, and ill-defined conditions	5.2%	3.0%	5.4%	5.3%	5.9%	5.3%	5.0%	4.9%
S00-T88: Injury, poisoning, and certain other consequences of external causes	83.5%	89.9%	81.9%	73.0%	83.8%	83.5%	82.4%	82.5%
Z00-Z99: Factors influencing health status and contact with health services	0.5%	0.5%	0.7%	1.1%	0.9%	0.7%	0.7%	0.8%
Other Chapters (not top 3)	3.8%	4.2%	6.0%	11.8%	5.9%	5.9%	6.3%	6.4%

*Drug overdose diagnoses include ICD-10-CM code beginning with T36 – T50 including unintentional, intentional harm, assault, or undetermined intents, and initial, subsequent, or missing encounter type.

Appendix Table 3: Frequency of encounter type among records with a drug overdose diagnosis code* in any field**A. Hospitalizations**

Encounter Type	State 1	State 2	State 3	State 4	State 5	State 6	State 7	State 8	Median	Average	Average without State 3
Initial encounter	97.5%	98.6%	68.8%	98.1%	98.4%	98.0%	98.7%	98.8%	98.3%	94.6%	98.3%
Subsequent encounter	1.3%	0.8%	0.9%	1.2%	0.8%	1.1%	0.7%	0.4%	0.8%	0.9%	0.9%
Sequela	1.2%	0.6%	0.6%	0.7%	0.8%	0.9%	0.6%	0.8%	0.7%	0.8%	0.8%
Missing	0.1%	0.0%	29.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.7%	0.0%

B. Emergency Department Visits

Encounter Type	State 1	State 2	State 3	State 4	State 5	Median	Average	Average without State 3
Initial encounter	99.3%	99.6%	79.2%	99.8%	99.5%	99.5%	95.5%	99.6%
Subsequent encounter	0.5%	0.2%	0.3%	0.1%	0.2%	0.2%	0.3%	0.3%
Sequela	0.2%	0.2%	0.4%	0.1%	0.2%	0.2%	0.2%	0.2%
Missing	0.0%	0.1%	20.0%	0.0%	0.0%	0.0%	4.0%	0.0%

*Drug overdose diagnosis codes include ICD-10-CM codes starting with T36 – T50 including unintentional, intentional harm, assault, or undetermined intents, and initial, subsequent, or missing encounter type. This analysis included records with overdose codes and codes for sequelae to overdose.

Appendix Table 4: Frequency of intent among records with a drug overdose diagnosis code* in any field**A. Hospitalizations**

Intent	State 1	State 2	State 3	State 4	State 5	State 6	State 7	State 8	Median	Average	Average without State 3
Unintentional	9.0%	13.7%	12.2%	10.2%	14.5%	11.7%	8.9%	8.3%	11.0%	11.1%	10.9%
Self-Harm	8.7%	9.1%	10.7%	5.8%	7.2%	23.0%	6.4%	6.3%	7.9%	9.6%	9.5%
Assault	0.1%	0.0%	0.1%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
Undetermined	0.7%	1.1%	0.9%	1.0%	0.9%	1.3%	0.8%	0.7%	0.9%	0.9%	0.9%
Adverse Effect	77.9%	74.1%	72.2%	80.7%	74.7%	57.6%	80.7%	81.1%	76.3%	74.9%	75.3%
Underdose	3.7%	2.1%	2.7%	2.3%	2.6%	6.3%	3.1%	3.6%	2.9%	3.3%	3.4%
Missing	0.0%	0.0%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%

B. Emergency Department Visits

Intent	State 1	State 2	State 3	State 4	State 5	Median	Average	Average without State 3
Unintentional	25.6%	40.7%	22.2%	20.8%	31.9%	25.6%	28.2%	29.7%
Self-Harm	17.6%	9.0%	11.6%	8.3%	14.8%	11.6%	12.3%	12.5%
Assault	0.2%	0.1%	0.1%	0.1%	0.2%	0.1%	0.1%	0.1%
Undetermined	3.5%	2.1%	1.7%	1.7%	2.0%	2.0%	2.2%	2.3%
Adverse Effect	48.9%	46.3%	42.3%	66.8%	49.5%	48.9%	50.8%	52.9%
Underdose	4.2%	1.8%	2.3%	2.3%	1.7%	2.3%	2.4%	2.5%
Missing	0.0%	0.0%	19.7%	0.0%	0.0%	0.0%	3.9%	0.0%

*Drug overdose diagnosis codes include ICD-10-CM codes starting with T36 – T50 including unintentional, intentional harm, assault, or undetermined intents, and initial, subsequent, or missing encounter type. This analysis included overdose records with overdose codes of any intent, adverse effects codes, and underdosing codes.