MONTANA
EMS, TRAUMA SYSTEMS &
INJURY PREVENTION PROGRAM

PublicHealth
IN THE 406

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Montana Injury Prevention Program: Injury Indicator Definitions

This document is for use with the Montana Office of Vital Statistics (OVS) death certificate data (fatal injuries) and Montana Hospital Discharge Data System (MHDDS) emergency department (ED) and hospitalization data (nonfatal injuries)

Injury Dataset Preparation

Preparing the fatality injury subset

- If the underlying cause of death field contains an injury external cause code, then include the record in the fatality injury subset
    - ICD-10 External Cause of Injury Codes – Fatalities

Preparing the hospitalization injury subset

- If the primary diagnosis field contains an injury diagnosis code, then include the record in the hospitalization injury subset
    - ICD-10-CM Injury diagnosis codes (S & T codes) included for injury surveillance

Preparing the ED injury subset

- If any ICD-coded field contains an injury diagnosis code or an external cause of injury code, then include the record in the ED injury subset
    - ICD-10-CM Injury diagnosis codes (S & T codes) included for injury surveillance
    - ICD-10-CM External cause of injury codes (V, W, X, Y codes) included for injury surveillance

ICD-10 External Cause of Injury Codes (Fatal)

ICD-10 Codes	Description
V01-Y36, Y85-Y87, Y89, U01-U03	Injury and poisoning

Regular Expression

^V|^W|^X|^Y[0-2]|^Y3[0-6]|^Y8[567]|^Y89|^U0[1-3]

The Drug overdose subset: X40-X44, X60-X64, X85, Y10-Y14

ICD-10-CM Injury diagnosis codes (S & T codes) included for injury surveillance (Nonfatal)

ICD-10-CM Codes*	Description
S00-S99	Anatomic injuries
T07-T34	Foreign bodies, burns, corrosions, frostbite
T36-T50 with an intent character of 1, 2, 3, or 4 *Note: Intent information is captured in the 5th character of the following codes: T36.9, T37.9, T39.9, T41.4, T42.7, T43.9, T45.9, T47.9, and T49.9. Intent is captured in 6th character of all other T36-T50 codes.*	Poisoning by drugs, medicaments, and biological substances (Includes unintentional, intentional self-harm, assault, and underdetermined intents; Excludes adverse effects and underdosing)
T51-T65	Toxic effects of substances nonmedicinal as to source
T66-T76	Other and unspecified effects of external causes
T79	Certain early complications of trauma, not elsewhere classified
O9A.2-O9A.5	Traumatic injuries and abuse complicating pregnancy, childbirth, and the puerperium
T84.04, M97	Periprosthetic fracture around internal prosthetic joint

*7th character of A, B, C, or missing (reflects initial encounter, active treatment). Exceptions: T30-T32 have 4-5 characters only, O9A.2-O9A.5 have 5-6 characters only, U07.0 has 4 characters, R45.88 has 5 characters, T07, T14.8, T14.90, T14.91 have 3-5 characters if using data prior to FY2018

Regular Expression

(S\d....|(T3[679]9|T414|T427|T4[3579]9)[1-4].|(?!(T3[679]9|T414|T427|T4[3579]9))(T3[6-9]|T4[0-9]|T50)..[1-4]|(T1[5-9]|T2.|T3[34]|T5[1-9]|T6.|T7[0-6]|T79|M97)...|T8404.|O9A[2-5].{1,2}|T3[0-2].{1,2}|T07(...)?|T148(..)?|T149[01](.A)?)(A|B|C|$|\b)

FY2017 Changes affecting injury diagnosis codes (effective Oct 1, 2016):
- T84.04 code retired and replaced by M97

FY2018 Changes affecting injury diagnosis codes (effective Oct 1, 2017):
- T07 code retired and replaced by T07xxxA, T07xxxD, T07xxxS
- T14.8 code retired and replaced by T14.8xxA, T14.8xxD, T14.8xxS
- T14.90 code retired and replaced by T14.90xA, T14.90xD, T14.90xS
- T14.91 code retired and replaced by T14.91xA, T14.91xD, T14.91xS

FY2019 Changes affecting injury diagnosis codes (effective Oct 1, 2018)
- None

FY2020 Changes affecting injury diagnosis codes (effective Oct 1, 2019)
- None

FY2021 Changes affecting injury diagnosis codes (effective Oct 1, 2020)
- None

FY2022 Changes affecting injury diagnosis codes (effective Oct 1, 2021)
- U07.0 vaping-related disorder was introduced to the ICD-10-CM on an emergency basis on April 1, 2020 and was added to injury diagnosis matrix in FY 22 *(This code is NOT added to the injury diagnoses codes used in defining the injury subset)*
- R45.88 non-suicidal self-harm added to injury diagnosis matrix & external cause matrix in FY 22 *(This code is NOT added to the injury diagnoses or external cause codes used in defining the injury subset. It is added in the self harm indicator)*

Selected ICD-10-CM Injury diagnosis codes that convey external cause (mechanism and intent) information (Nonfatal)

ICD-10-CM Codes*	Description
T14.91	Suicide attempt
T15-T19	Effects of foreign body entering through natural orifice
T36-T50 with an intent character of 1, 2, 3, or 4 *Note: Intent information is captured in the 5th character of the following codes: T36.9, T37.9, T39.9, T41.4, T42.7, T43.9, T45.9, T47.9, and T49.9. Intent is captured in 6th character of all other T36-T50 codes.*	Poisoning by drugs, medicaments, and biological substances (Includes unintentional, intentional self-harm, assault, and underdetermined intents; Excludes adverse effects and underdosing)
T51-T65	Toxic effects of substances nonmedicinal as to source
T71	Asphyxiation
T73	Effects of deprivation
T74, T76	Adult and child abuse, neglect, and other maltreatment, confirmed or suspected
T75.0-T75.4	Effects of lightning, drowning and non-fatal submersion, vibration, motion sickness, and electrocution

7th character of A or missing (reflects initial encounter, active treatment). Exceptions: R45.88 has 5 characters, T14.91 has 5 characters if using data prior to FY2018

Regular Expression
((T3[679]9|T414|T427|T4[3579]9)[1-4].|(?!(T3[679]9|T414|T427|T4[3579]9))(T3[6-9]|T4[0-9]|T50)..[1-4]|T1491(.A)?|(T1[5-9]|T5[1-9]|T6[0-5]|T7[1346])...|T75[0-4]..)(A|$|\b)

FY2018 Changes affecting injury diagnosis codes (effective Oct 1, 2017):
- T14.91 code retired and replaced by T14.91xA, T14.91xD, T14.91xS

FY2020 Changes affecting Diagnosis codes with external cause implications (effective Oct 1, 2019):
- Code T75.1 was added to the external cause matrix (Mechanism=Drowning/submersion, Intent=Undetermined)
- Code T75.4 was added to external cause matrix (Mechanism=Other Specified, Classifiable, Intent=Unintentional) for consistency with inclusion of legal intervention codes involving a conducted energy device (Y35.831, Y35.832, Y35.833, T35.839)

FY2022 Changes affecting Diagnosis codes with external cause implications (effective Oct 1, 2021)
- R45.88 non-suicidal self-harm added to injury diagnosis matrix & external cause matrix in FY 22 *(This code is NOT added to the injury diagnoses or external cause codes used in defining the injury subset. It is added in the self harm indicator)*

ICD-10-CM External cause of injury codes (V, W, X, Y codes) included for injury surveillance (Nonfatal)

ICD-10-CM Codes*	Description
V00-V99	Transport accidents
W00-X58	Other external causes of accidental injury
X71-X83	Intentional self-harm
X92-Y09	Assault
Y21-Y33	Event of undetermined intent
Y35-Y38	Legal intervention, operations of war, military operations, and terrorism

7th character of A or missing (reflects initial encounter, active treatment). Exceptions: Y07 has 4-6 characters only, Y09 has 3 characters only.

Regular Expression
((V|W|X)\d....**|**(?!(Y0[79]))Y[0-3]....**|**Y07.{1,3}**|**Y09**)(**A|$|\b**)**

Unintentional Injury

Unintentional Injury (Fatal)

Select records from the fatal injury subset containing any of the following codes in underlying cause field:

ICD-10 Codes	Description
V00-V99	Transport Accidents
W00-X59	Other external causes of accidental injury
Y85	Sequelae of Transport Accidents
Y86	Sequelae of Other Accidents

Regular Expression

^[VW][0-9]/d|^X[0-5]/d|^Y8[56]

Unintentional Injury (Nonfatal)

Select records from the ED or hospitalization injury subset containing any of the following codes in any field:

ICD-10-CM Codes*	Description
T15-T19	Effects of foreign body entering through natural orifice
T36-T50 with an intent character of 1 *Note: Intent information is captured in the 5th character of the following codes: T36.9, T37.9, T39.9, T41.4, T42.7, T43.9, T45.9, T47.9, and T49.9. Intent is captured in 6th character of all other T36-T50 codes.*	Unintentional poisoning with drugs, medications, and biological substances
T51-T65 with an intent character of 1 *Note: Intent information is captured in the 5th character of the following codes: T51.9, T52.9, T53.9, T54.9, T56.9, T57.9, T58.0, T58.1, T58.9, T59.9, T60.9, T61.0, T61.1, T61.9, T62.9, T63.9, T64.0, T64.8, and T65.9. Intent is captured in 6th character of all other T51-T65 codes.*	Unintentional toxic effects of non-medicinal substances
V00-V99	Transport accidents
W00-X58	Other external causes of accidental injury
T71.1 with 6th character of 1 T71.20, T71.21, T71.29 T71.22, T71.23 with 6th character of 1 T71.9	Unintentional asphyxiation, suffocation, hanging
T73	Effects of other deprivation
T75.0, T75.2, T75.3, T75.4	Effects of lightning, vibration, motion sickness, electrocution

7th character of A or missing (reflects initial encounter, active treatment).

Regular Expression

(T1[5-9]...|(T3[679]9|T414|T427|T4[3579]9)1.|(?!(T3[679]9|T414|T427|T4[3579]9))(T3[6-9]|T4[0-9]|T50)..1|((T5[1-46-9]|T6[0-35])9|(T58|T61)[01]|T64[08])1.|(?!((T5[1-46-9]|T6[0-35])9|(T58|T61)[01]|T64[08]))(T5[1-9]|T6[0-5])..1|(V|W)\d....|X[0-5]....|T71..1|T712[019].|T719..|T73...|T75[0234]..)(A|$|\b)

FY2020 Changes affecting indicator (effective Oct 1, 2019):
- Code T75.4 was added to external cause matrix (Mechanism=Other Specified, Classifiable, Intent=Unintentional) for consistency with inclusion of legal intervention codes involving a conducted energy device (Y35.83)

Intentional Self-harm/Suicide

Suicide (Fatal)

Select records from the fatal injury subset containing any of the following codes in underlying cause field:

ICD-10 Codes	Description
X60-X84	Intentional self-harm
Y87.0	Sequelae of intentional self-harm
U03	Terrorism-intentional self-harm

Regular Expression
^X[67][0-9]|^X8[0-4]|^Y870|^U03

Intentional self-harm (Nonfatal)

Select records from the ED or hospitalization injury subset containing any of the following codes in any field:

ICD-10-CM Codes*	Description
T36-T50 with an intent character of 2 *Note: Intent information is captured in the 5th character of the following codes: T36.9, T37.9, T39.9, T41.4, T42.7, T43.9, T45.9, T47.9, and T49.9. Intent is captured in 6th character of all other T36-T50 codes.*	Self-harm by poisoning with drugs, medications, and biological substances
T51-T65 with an intent character of 2 *Note: Intent information is captured in the 5th character of the following codes: T51.9, T52.9, T53.9, T54.9, T56.9, T57.9, T58.0, T58.1, T58.9, T59.9, T60.9, T61.0, T61.1, T61.9, T62.9, T63.9, T64.0, T64.8, and T65.9. Intent is captured in 6th character of all other T51-T65 codes.*	Self-harm by toxic effects of non-medicinal substances
X71-X83	Self-harm
T71 with 6th character of 2	Self-harm by asphyxiation, suffocation, hanging
T14.91	Suicide attempt
R45.88	Non-suicidal self-harm

7th character of A or missing (reflects initial encounter, active treatment). Exceptions: R45.88 has 5 characters, T14.91 has 5 characters if using data prior to FY2018

Regular Expression
((T3[679]9|T414|T427|T4[3579]9)2.|(?!(T3[679]9|T414|T427|T4[3579]9))(T3[6-9]|T4[0-9]|T50)..2|((T5[1-46-9]|T6[0-35])9|(T58|T61)[01]|T64[08])2.|(?!((T5[1-46-9]|T6[0-35])9|(T58|T61)[01]|T64[08]))(T5[1-9]|T6[0-5])..2|(X7[1-9]|X8[0-3])...|T71..2|T1491(.A)?|R4588)(A|$|\b)

FY2018 Changes affecting indicator (effective Oct 1, 2017):
- T14.91 retired and replaced by T14.91xA, T14.91xD, T14.91xS

FY2022 Changes affecting Diagnosis codes with external cause implications (effective Oct 1, 2021) → provisionally added until confirmed by CDC
- R45.88 non-suicidal self-harm added to injury diagnosis matrix & external cause matrix in FY 22 *(this code is added to the self-harm indicator only)*

Assault/Homicide

Homicide (Fatal)

Select records from the fatal injury subset containing any of the following codes in underlying cause field:

ICD-10 Codes	Description
X85-Y09	Assault
Y87.1	Sequelae of assault
U01	Terrorism-assault
U02	Sequelae of terrorism-Assault

Regular Expression
^X8[5-9]|^X9[0-9]|^Y0[0-9]|^Y871|^U0[12]

Assault (Nonfatal)

Select records from the ED or hospitalization injury subset containing any of the following codes in any field:

ICD-10-CM Codes*	Description
T36-T50 with an intent character of 3 *Note: Intent information is captured in the 5th character of the following codes: T36.9, T37.9, T39.9, T41.4, T42.7, T43.9, T45.9, T47.9, and T49.9. Intent is captured in 6th character of all other T36-T50 codes.*	Assault by poisoning with drugs, medications, and biological substances
T51-T65 with an intent character of 3 *Note: Intent information is captured in the 5th character of the following codes: T51.9, T52.9, T53.9, T54.9, T56.9, T57.9, T58.0, T58.1, T58.9, T59.9, T60.9, T61.0, T61.1, T61.9, T62.9, T63.9, T64.0, T64.8, and T65.9. Intent is captured in 6th character of all other T51-T65 codes.*	Assault by toxic effects of non-medicinal substances
X92-Y09	Assault by various mechanisms
T71 with 6th character of 3	Assault by asphyxiation, suffocation, hanging
T74, T76	Confirmed/suspected adult or child abuse, neglect, and other maltreatment
Y38	Terrorism

7th character of A or missing (reflects initial encounter, active treatment). Exceptions: Y07 has 4-6 characters only, Y09 has 3 characters only.

Regular Expression
((T3[679]9|T414|T427|T4[3579]9)3.**|**(?!(T3[679]9|T414|T427|T4[3579]9))(T3[6-9]|T4[0-9]|T50)..3**|**((T5[1-46-9]|T6[0-35])9|(T58|T61)[01]|T64[08])3.**|**(?!((T5[1-46-9]|T6[0-35])9|(T58|T61)[01]|T64[08]))(T5[1-9]|T6[0-5])..3**|**T71..3**|**(X9[2-9]|Y0[0-68]|T7[46]|Y38)...**|**Y07.{1,3}**|**Y09**)(**A|$|\b**)**

Traumatic brain injury (TBI)

TBI (Fatal)

Select records from the fatal injury subset containing any of the following codes in underlying cause field:

ICD-10 Codes	Description
S01.0–S01.9	Open wound of head
S02.0, S02.1, S02.3, S02.7–S02.9	Fracture of skull and facial bones
S04.0	Injury of optic nerve and pathways
S06.0–S06.9	Intracranial injury
S07.0, S07.1, S07.8, S07.9	Crushing injury of head
S09.7-S09.9	Other and unspecified injuries of head
T90.1, T90.2, T90.4, T90.5, T90.8, T90.9	Sequelae of injuries of head

Regular Expression
^S0[16][0-9]|^S02[0137-9]|^S040|^S07[0189]|^S09[7-9]|^T90[124589]

TBI (Nonfatal)

Select records from the ED or hospitalization injury subset containing any of the following codes in any field:

ICD-10-CM Codes*	Description
S02.0, S02.1	Fracture of skull
S02.8X**, S02.80, S02.81, S02.82	Fracture of other specified skull and facial bones
S02.91	Unspecified skull fracture
S04.02, S04.03, S04.04	Injury of optic chiasm; injury of optic tract and pathways; injuries of visual cortex
S06	Intracranial injury
S07.1	Crushing injury of skull
T74.4	Shaken infant syndrome

*7th character of A, B, or missing (reflects initial encounter, active treatment).

Regular Expression
((S02[01].|S028[^345]|S0291|S040[2-4]|S06..|S071.|T744.).)(A|B|$|\b)

Note: This indicator does NOT include "Unspecified injury of head" (S09.90). A study by Bazarian et al found that 75.3% of emergency department records coded with unspecified head injury in ICD-9-CM (959.01) did not meet the clinical criteria for TBI.

FY2017 (effective Oct 1, 2016)
- The S02.8 code was expanded to include several subcodes (S02.80, S02.81, and S02.82) and the parent code S02.8X was retired.

FY2022 (effective Oct 1, 2022)
- The S02.8 code was expanded again to include S02.83-, S02.84- and S02.85. These subcodes are not included in the selection criteria for the indicator as they represent fractures to the medial and lateral orbital wall, or unspecified fractures of the orbit and are not considered to be TBI.

Unintentional Motor Vehicle Traffic

Unintentional MVT (Fatal)

Select records from the fatal injury subset containing any of the following codes in underlying cause field:

ICD-10 Codes	Description
V02–V04 (.1, .9), V09.2	Pedestrian injured in transport accident
V12-V14 (.3-.9), V19.4–V19.6	Pedal cyclist injured in transport accident
V20-V28 (.3-.9), V29.4–V29.9	Motorcycle rider injured in transport accident
V30-V39 (.4-.9)	Occupant of three-wheeled motor vehicle injured in transport accident
V40-V49 (.4-.9)	Car occupant injured in transport accident
V50-V59 (.4-.9)	Occupant of pick-up truck or van injured in transport accident
V60-V69 (.4-.9)	Occupant of heavy transport vehicle injured in transport accident
V70-V79 (.4-.9)	Bus occupant injured in transport accident
V80.3–V80.5, V81.1, V82.1, V83–V86 (.0–.3), V87.0–V87.8, V89.2	Other land transport accidents

Regular Expression

V0[234][19]|V092|V1[2-4][3-9]|V19[4-6]|V2[0-8][3-9]|V29[4-9]|V[3-7].[4-9]|V8[3-6][0-3]|V87[0-8]|V892|V80[3-5]|V8[12]1

Unintentional MVT (Nonfatal)

Select records from the ED or hospitalization injury subset containing any of the following codes in any field:

ICD-10-CM Codes*	Description
V02.1, V02.9, V03.1, V03.9, V04.1, V04.9, V09.2, V09.3	MVT Pedestrian
V12-V14 (.3-.9), V19.4-V19.6, V19.9 For 10/1/22 and later, add these codes: V22–V24 (.3-.9), V29.9 with 5th character of 1 V29.4-V29.6 with 6th character of 1	MVT Pedal cycle
V20-V28 (.3-.9), V29.4-V29.9 For 10/1/22 and later, exclude these codes: V20-V28 (.3-.9), V29.9 with 5th character of 1 V29.4-V29.8 with 6th character of 1	MVT Motorcycle
V30-V79 (.4-.9), V83-V86 (.0-.3), V87.0-V87.8, V89.2	MVT Occupant
V80.3-V80.5, V81.1, V82.1	MVT Other

*7th character of A or missing (reflects initial encounter, active treatment).

Regular Expression (before 10/1/22)
((V0[234][19]|V09[23]|V1[2-4][3-9]|V19[4-69]|V2[0-8][3-9]|V29[4-9]|V[3-7].[4-9]|V8[3-6][0-3]|V87[0-8]|V892|V80[3-5]|V8[12]1)..**)(**A|$|\b**)**

Regular Expression (on or after10/1/22)
(?!**(**V2[0-15-8][3-9]1.|V298\d1**))((**V0[234][19]|V09[23]|V1[2-4][3-9]|V19[4-69]|V2[0-8][3-9]|V29[4-9]|V[3-7].[4-9]|V8[3-6][0-3]|V87[0-8]|V892|V80[3-5]|V8[12]1)..**)(**A|$|\b**)**

E-Bikes (MVT Pedal Cycle) (transfer from MVT motorcycle to MVT pedal cycle on or after 10/1/22)
(V2[2-4][3-9]1.|V29[4-6]\d1|V2991.**)(**A|$|\b**)**
E-Bikes (exclude from MVT motorcycle and do not transfer elsewhere on or after 10/1/22)
(V2[0-15-8][3-9]1.|V298\d1**)(**A|$|\b**)**

NOTE: This indicator includes ONLY traffic-related incidents. Transport incidents involving motor vehicles are considered "traffic" incidents if they occur on a public highway or street, whereas a "non-traffic" incident occurs entirely in any place other than a public highway or street.

FY2020 Changes affecting indicator (effective Oct 1, 2019):
- Codes V87.0-V87.8, V89.2 were moved from external cause mechanism category "MVT-Unspecified" to "MVT-Occupant"
- V09.3 was moved from "Pedestrian, other" to "MVT-Pedestrian"

FY2022 (effective Oct 1, 2022)
- Electric bicycle (e-bike) codes were added under the motorcycle parent codes (V20-V29), however, for the external cause of injury matrix they are considered pedal cycles.

Unintentional Motor Vehicle Occupant (Traffic and Non-Traffic)

Unintentional MVO (Nonfatal)

Select records from the ED or hospitalization injury subset containing any of the following codes in any field:

ICD-10-CM Codes*	Description

V20-V29
  For 10/1/22 and later, exclude these codes:
  V20-V28, V29.3, V29.9 with 5th character of 1
  V29.0-V29.2, V29.4-V29.8 with 6th character of 1
	Motorcycle rider injured in transport accident

V30-V39	Occupant of three-wheeled motor vehicle injured in transport accident
V40-V49	Car occupant injured in transport accident
V50-V59	Occupant of pick-up truck or van injured in transport accident
V60-V69	Occupant of heavy transport vehicle injured in transport accident
V70-V79	Bus occupant injured in transport accident
V83-V86	Occupant of special industrial vehicle, special agriculture vehicle, special construction vehicle, or special all-terrain or other off-road motor vehicle injured in transport accident
V87.0-V87.8	Person injured in transport accident involving motor vehicles - traffic
V88.0-V88.8	Person injured in transport accident involving motor vehicles - nontraffic
V89.0, V89.2	Person injured in unspecified motor-vehicle accident

*7th character of A or missing (reflects initial encounter, active treatment).

Regular Expression (before 10/1/2022)
(V[234567]....**|**V8[3456]...**|**V8[78][0-8]..**|**V89[02]..**)(**A|$|\b**)**

Regular Expression (10/1/2022 and later)
(?!((V2[0-8]\d|V29[39]**)**1.**|**V29[0-24-8]\d1**))(**V[234567]....**|**V8[3456]...**|**V8[78][0-8]..**|**V89[02]..**)(**A|$|\b**)**

E-Bikes (All) (Exclude from MVO on or after 10/1/22)
((V2[0-8]\d|V29[39]**)**1.**|**V29[0-24-8]\d1**)(**A|$|\b**)**

NOTE: This indicator includes both traffic and non-traffic-related incidents. Transport incidents involving motor vehicles are considered "traffic" incidents if they occur on a public highway or street, whereas a "non-traffic" incident occurs entirely in any place other than a public highway or street.

Pedestrian Injuries

Pedestrian (Nonfatal)

Select records from the ED or hospitalization injury subset containing any of the following codes in any field:

ICD-10-CM Codes*	Description
V02.1, V02.9, V03.1, V03.9, V04.1, V04.9, V09.2, V09.3	MVT Pedestrian
V00.0, V01, V02.0, V03.0, V04.0, V05, V06, V09.0, V09.1, V09.9	Other Nontraffic Pedestrian injuries
V00.1 (.1, .2, .3, .8)	Pedestrian Conveyance

*7th character of A or missing (reflects initial encounter, active treatment).

Regular Expression
(V0\d...**)(**A|$|\b**)**

Pedal Cyclist Injuries

Pedal Cyclist (Nonfatal)

Select records from the ED or hospitalization injury subset containing any of the following codes in any field:

ICD-10-CM Codes*	Description

V12-V14 (.3-.9), V19.4-V19.6, V19.9
    For 10/1/22 and later, add these codes:
    V22–V24(.3-.9), V29.9 with 5th character of 1
    V29.4-V29.6 with 6th character of 1
	MVT Pedal cycle

V12-V14(.0-.2), V19.0-V19.2
    For 10/1/22 and later, add these codes:
    V22–V24 (.0-.2) with 5th character of 1
    V29.0-V29.2 with 6th character of 1
	MVN Pedal cycle

V10-V11, V15-V18, V19.3, V19.8
    For 10/1/22 and later, add these codes:
    V20-V21, V25-V28, V29.3 with 5th character of 1
    V29.8 with 6th character of 1
	Other Pedal Cyclist injuries

*7th character of A or missing (reflects initial encounter, active treatment).

Regular Expression (before 10/1/2022)
(V1\d...**)(**A|$|\b**)**

Regular Expression (10/1/2022 and later)
((V2[0-8]\d|V29[39]**)**1.|V29[0-24-8]\d1|V1\d...**)(**A|$|\b**)**

E-Bikes (All) (Add to Pedal Cyclist on or after 10/1/22)
((V2[0-8]\d|V29[39]**)**1.|V29[0-24-8]\d1**)(**A|$|\b**)**

FY2022 (effective Oct 1, 2022)
- Electric bicycle (e-bike) codes were added under the motorcycle parent codes (V20-V29), however, for the external cause of injury matrix they are considered pedal cycles.

Unintentional Motor Vehicle NonTraffic

Unintentional MVN (Nonfatal)

Select records from the ED or hospitalization injury subset containing any of the following codes in any field:

ICD-10-CM Codes*	Description
V02-V04(.0), V09.0	MVN Pedestrian
V12-V14(.0-.2), V19.0-V19.2 For 10/1/22 and later, add these codes: V22–V24 (.0-.2) with 5th character of 1 V29.0-V29.2 with 6th character of 1	MVN Pedal cycle
V20-V28 (.0-.2), V29.0-V29.3 For 10/1/22 and later, exclude these codes: V20-V28 (.0-.2), V29.3 with 5th character of 1 V29.0-V29.2 with 6th character of 1	MVN Motorcycle
V30-V79 (.0-.3), V83-V86 (.4-.7, .9), V88.0-V88.8, V89.0	MVN Occupant
V81.0, V82.0	MVN Other

*7th character of A or missing (reflects initial encounter, active treatment).

Regular Expression (before 10/1/22)
((V0[2-49][0]|V1[2-49][0-2]|V2[0-8][0-2]|V29[0-3]|V[3-7]\d[0-3]|V8[3-6][4-79]|V88[0-8]|V890|V8[12]0)..)(A|$|\b)

Regular Expression (on or after10/1/22)
(?!((V2[0-15-8][0-2]|V293)1.))((V0[2-49][0]|V1[2-49][0-2]|V2[0-8][0-2]|V29[0-3]|V[3-7]\d[0-3]|V8[3-6][4-79]|V88[0-8]|V890|V8[12]0)..)(A|$|\b)

E-Bikes (MVN Pedal Cycle) (transfer from MVN motorcycle to MVN pedal cycle)
(V2[2-4][0-2]1.|V29[0-2][09]1)(A|$|\b)
E-Bikes (exclude from MVN motorcycle and do not transfer elsewhere)
((V2[0-15-8][0-2]|V293)1.)(A|$|\b)

Note: This indicator is NOT the same as the MVN row of the external cause matrix. Some codes included in this MVN indicator (directly analogous to MVT codes) are part of the "Other Land Transport" row of the external cause matrix.
Codes not specified whether traffic or nontraffic, Currently included in "MVT" and not in "MVN":
- V12.3, V13.3, V14.3, V22.3, V23.3, V24.3-"Person boarding or alighting a pedal cycle injured in collision with motor vehicle"
- V02.9, V03.9, V04.9 – "Pedestrian injured in collision with motor vehicle, unspecified whether traffic or nontraffic accident"
- V80.31, V80.32, V80.41, V80.42, V80.51, V80.52- "Animal-rider/occupant of animal-drawn vehicle injured in collision with motor vehicle"

FY2022 (effective Oct 1, 2022)
- Electric bicycle (e-bike) codes were added under the motorcycle parent codes (V20-V29), however, for the external cause of injury matrix they are considered pedal cycles.

Off-Highway Vehicle -Nontraffic

Unintentional MVN Off-Highway Vehicle (Nonfatal)

ICD-10-CM Codes*	Description
V86.45, V86.55, V86.65, V86.75, V86.95	Occupant of 3- or 4-wheel ATV
V86.49, V86.59, V86.69, V86.79, V86.99	Occupant of other special all-terrain or off-road motor vehicle
V86.46, V86.56, V86.66, V86.76, V86.96	Occupant of Dirt Bike
V86.42, V86.52, V86.62, V86.72, V86.92	Occupant of Snowmobile
V86.43, V86.53, V86.63, V86.73, V86.93	Occupant of Dune buggy

Regular Expression
((V86[4-79][23569])..**)(**A|$|\b**)**

Note: This indicator is a subset of MVN-Occupant. Some codes included in this MVN indicator (directly analogous to MVT codes) are part of the "Other Land Transport" row of the external cause matrix.

Codes in BLACK are part of the "MV-Nontraffic" row of the ICD-10-CM External Cause of Injury Framework.

Codes in RED are part of the "Other Land Transport" row of the ICD-10-CM External Cause of Injury Framework.

Unintentional Falls

Unintentional Falls (Fatal)

Select records from the fatal injury subset containing any of the following codes in underlying cause field:

ICD-10 Codes	Description
W00-W19	Falls

Regular Expression
^W[01][0-9]

Unintentional Falls (Nonfatal)

Select records from the ED or hospitalization injury subset containing any of the following codes in any field:

ICD-10-CM Codes*	Description
V00.11-V00.89 with 6th character of 1	Falls related to pedestrian conveyance
W00-W15, W17, W19	Falls
W16.0-W16.3, W16.5-W16.8 with 6th character of 2 W16.4 and W16.9 with 5th character of 2	Fall, jump, or diving into water causing other injury
W18.1, W18.2, W18.3	Other falls

*7th character of A or missing (reflects initial encounter, active treatment).

Regular Expression
((?!V000)V00..1|(W0.|W1[0-579])...|W18[123]..|W16[49]2.|(?!W16[49])W16..2)(A|$|\b)

Unintentional fall-related hip fracture in persons aged 65 and older

Identify unintentional fall-related records using the previous indicator, restrict to ages 65 and older, and then select records containing any of the following codes in any field:

ICD-10-CM Codes*	Description
S72.0	Fracture of head and neck of femur
S72.1	Pertrochanteric fracture
S72.2	Subtrochanteric fracture
T84.040**	Periprosthetic fracture around internal prosthetic right hip joint
T84.041**	Periprosthetic fracture around internal prosthetic left hip joint
M97.0**	Periprosthetic fracture around internal prosthetic hip joint

*7th character of A, B, C, or missing (reflects initial encounter, active treatment).

Regular Expression
(S72[012]..|M970..|T8404[01])(A|B|C|$|\b)

FY2017 Changes affecting injury diagnosis codes (effective Oct 1, 2016):
- T84.04 retired and replaced by M97

Drowning

Drowning (Fatal)

Select records from the injury fatality subset containing any of the following codes in underlying cause field:

ICD-10 Codes	Description
W65-W74	Accidental drowning and submersion
V90	Accident to watercraft causing drowning and submersion
V92	Water-transport-related drowning and submersion without accident to watercraft
X92	Assault by drowning and submersion
Y364	Drowned in war operations NOS
Y21	Drowning and submersion, undetermined intent
X71	Intentional self-harm by drowning and submersion

Regular Expression- Drowning (All Intents)
^W6[5-9]|^W7[0-4]|^V9[02]|^X92|^Y364|^Y21|^X71

Regular Expression- Drowning (Unintentional)
^W6[5-9]|^W7[0-4]|^V9[02]

Drowning (Nonfatal)

Select records from the ED or hospitalization injury subset containing any of the following codes in any field:

ICD-10-CM Codes*	Description
T75.1	Drowning and nonfatal submersion
V90	Drowning and submersion due to accident to watercraft
V92	Drowning and submersion due to accident on board watercraft, without accident to watercraft
W16.0-W16.3, W16.5-W16.8 with 6th character of 1 W16.4 and W16.9 with 5th character of 1	Fall, jump, or diving into water causing drowning and submersion
W22.041	Striking against wall of swimming pool causing drowning and submersion
W65-W74	Accidental non-transport drowning and submersion
X71	Intentional self-harm by drowning and submersion
X92	Assault by drowning and submersion
Y21	Drowning and submersion, undetermined intent

*7th character of A or missing (reflects initial encounter, active treatment).

FY2020 Changes affecting indicator (effective Oct 1, 2019):
- V90, V92 codes were moved from external cause mechanism category "Other Transport" to "Drowning/submersion"

Regular Expression
(T751..|W16[49]1.|(?!W16[49])W16..1|W22041|(V9[02]|W6[5-9]|W7.|X71|X92|Y21)...)(A|$|\b)

Unintentional Fire

Unintentional Fire (Fatal)

Select records from the injury fatality subset containing any of the following codes in underlying cause field:

ICD-10 Codes	Description
X00–X09	Exposure to smoke, fire, and flames

Regular Expression
^X0[0-9]

Unintentional Fire (Nonfatal)

Select records from the ED or hospitalization injury subset containing any of the following codes in any field:

ICD-10-CM Codes*	Description
X00-X08	Exposure to smoke, fire, and flames

*7th character of A or missing (reflects initial encounter, active treatment).

Regular Expression
(X0[0-8]...)(A|$|\b)

Firearm

Firearm (Fatal)

Select records from the injury fatality subset containing any of the following codes in underlying cause field:

ICD-10 Codes	Description
W32–W34	Exposure to inanimate mechanical forces—firearm discharge
X72–X74	Intentional self-harm by firearm discharge
X93–X95	Assault by firearm discharge
Y22–Y24	Firearm discharge of undetermined intent
Y35.0	Legal intervention involving firearm discharge
U01.4	Terrorism involving firearms

Regular Expression- Firearm (All Intents)
^W3[2-4]|^X7[2-4]|^X9[3-5]|^Y2[2-4]|^Y350|^U014

Regular Expression- Firearm (Suicide)
^X7[2-4]

Firearm (Nonfatal)

Select records from the ED or hospitalization injury subset containing any of the following codes in any field:

ICD-10-CM Codes*	Description
W32.0, W32.1, W33.0, W33.1, W34.00, W34.09, W34.10, W34.19	Accidental discharge or malfunction of firearm
X72, X73, X74.8, X74.9	Intentional self-harm by firearm
X93, X94, X95.8, X95.9	Assault by firearm
Y38.4	Terrorism involving firearms
Y22, Y23, Y24.8, Y24.9	Firearm discharge of undetermined intent
Y35.00-Y35.03, Y35.09	Legal intervention involving firearm discharge, excluding rubber bullets

*7th character of A or missing (reflects initial encounter, active treatment).

Regular Expression
((W3[23][01]|(X74|X95|Y24)[89]|Y350|Y384)..**|((**X7|Y2)[23]|X9[34])...**|**W34[01][09].**|**Y350[0-39].**)(**A|$|\b**)**

NOTE: This indicator includes accidental malfunctions of firearm. It excludes injuries related to gas, air or spring-operated guns (air gun, BB gun, paintball gun) as well as rubber bullets. Excludes war/military operations.

FY2020 Changes affecting indicator (effective Oct 1, 2019):
- Codes for firearm malfunction (W32.1, W33.1, W34.10, W34.19) were moved from external cause mechanism category "Other Specified, Classifiable" to "Firearm"

Non-drug poisoning

Non-drug poisoning (Fatal)

Select records from the injury fatality subset containing any of the following codes in underlying cause field:

ICD-10 Codes	Description
X45–X49	Accidental poisoning by nondrugs
X65–X69	Intentional self-poisoning by nondrugs
X86–X90	Assault by nondrug poisoning
Y15–Y19	Poisoning by and exposure to nondrugs, undetermined intent
Y35.2	Legal intervention involving gas
U01.6, U01.7	Terrorism involving biological or chemical weapons

Regular Expression
^X[46][5-9]|^X8[6-9]|^X90|^Y1[5-9]|^Y352|^U01[67]

Non-drug poisoning (Nonfatal)

Select records from the ED or hospitalization injury subset containing any of the following codes in any field:

ICD-10-CM Codes*	Description
T51-T53, T55-T62, T64	Toxic effects of nonmedicinal substances
T54.0	Toxic effects of phenol and phenol homologues
T65.0-T65.81, T65.83, T65.89, T65.9	Toxic effects of other and unspecified substances
Y38.7	Terrorism due to chemical weapons
Y35.2	Legal intervention involving gas

*7th character of A or missing (reflects initial encounter, active treatment).

Regular Expression
((T5[1-35-9]|T6[0-24])...**|**(T540.|T65[0-69].|T658[139]).**|**(Y387|Y352)..**)(**A|$|\b**)**

NOTE: This indicator includes toxic effects of ethanol (T51.0). It excludes toxic effects of corrosive substances (T54.1, T54.2, T54.3, T54.9), toxic effect of contact with venomous animals and plants (T63), and toxic effect of harmful algae and algae toxins (T65.82)

FY2020 Changes affecting indicator (effective Oct 1, 2019):
- Codes for terrorism (Y38.6) and war operations (Y36.6) involving biological weapons were moved from external cause mechanism category "Poisoning, Non-drug" to "Other Specified, Classifiable" → dropped from non-drug poisoning indicator

All drug overdose

All Drug Overdose (Fatal)

Select records containing any of the following codes in underlying cause field:

ICD-10 Codes	Description
X40–X44	Accidental Poisoning by drugs, medicaments, and biological substances
X60-X64	Intentional self-poisoning by drugs, medicaments, and biological substances
X85	Assault by drugs, medicaments, and biological substances
Y10-14	Poisoning by and exposure to drugs, medicaments, and biological substances, undetermined intent

Regular Expression
^X[46][0-4]|^X85|^Y1[0-4]

All Drug Overdose (Nonfatal)

Select records from the full ED or hospitalization dataset (do not restrict to the injury subset) containing any of the following codes in any field:

ICD-10-CM Codes*	Description
T36-T50 with an intent character of 1, 2, 3, or 4 *Note: Intent information is captured in the 5th character of the following codes: T36.9, T37.9, T39.9, T41.4, T42.7, T43.9, T45.9, T47.9, and T49.9. Intent is captured in 6th character of all other T36-T50 codes.*	Poisoning by drugs, medicaments, and biological substances (Includes unintentional, intentional self-harm, assault, and underdetermined intents; Excludes adverse effects and underdosing)

*7th character of A or missing (reflects initial encounter, active treatment).

Regular Expression
((T3[679]9|T414|T427|T4[3579]9)[1-4].|(?!(T3[679]9|T414|T427|T4[3579]9))(T3[6-9]|T4[0-9]|T50)..[1-4])(A|$|\b)

All Drug Overdose (DOSE)

DOSE only includes unintentional and undetermined intent. Select records from the full ED or hospitalization dataset (do not restrict to the injury subset) containing any of the following codes in any field:

ICD-10-CM Codes*	Description
T36-T50 with an intent character of 1 or 4 *Note: Intent information is captured in the 5th character of the following codes: T36.9, T37.9, T39.9, T41.4, T42.7, T43.9, T45.9, T47.9, and T49.9. Intent is captured in 6th character of all other T36-T50 codes.*	Poisoning by drugs, medicaments, and biological substances (Includes unintentional, intentional self-harm, assault, and underdetermined intents; Excludes adverse effects and underdosing)

*7th character of A or missing (reflects initial encounter, active treatment).

Regular Expression
((T3[679]9|T414|T427|T4[3579]9)[14].|(?!(T3[679]9|T414|T427|T4[3579]9))(T3[6-9]|T4[0-9]|T50)..[14])(A|$|\b)

Unintentional drug overdose

Unintentional Drug Overdose (Fatal)

Select records containing any of the following codes in underlying cause field:

ICD-10 Codes	Description
X40–X44	Accidental Poisoning by drugs, medicaments, and biological substances

Regular Expression
^X4[0-4]

Unintentional Drug Overdose (Nonfatal)

Select records from the full ED or hospitalization dataset (do not restrict to the injury subset) containing any of the following codes in any field:

ICD-10-CM Codes*	Description
T36-T50 with an intent character of 1 *Note: Intent information is captured in the 5th character of the following codes: T36.9, T37.9, T39.9, T41.4, T42.7, T43.9, T45.9, T47.9, and T49.9. Intent is captured in 6th character of all other T36-T50 codes.*	Unintentional poisoning by drugs, medicaments, and biological substances

7th character of A or missing (reflects initial encounter, active treatment).

Regular Expression
((T3[679]9|T414|T427|T4[3579]9)1.|(?!(T3[679]9|T414|T427|T4[3579]9))(T3[6-9]|T4[0-9]|T50)..1)(A|$|\b)

Self-harm/Suicide drug overdose

Suicide Drug Overdose (Fatal)

Select records containing any of the following codes in underlying cause field:

ICD-10 Codes	Description
X60-X64	Intentional self-poisoning by drugs, medicaments, and biological substances

Regular Expression
^X6[0-4]

Intentional self-harm Drug Overdose (Nonfatal)

Select records from the full ED or hospitalization dataset (do not restrict to the injury subset) containing any of the following codes in any field:

ICD-10-CM Codes*	Description
T36-T50 with an intent character of 2 *Note: Intent information is captured in the 5th character of the following codes: T36.9, T37.9, T39.9, T41.4, T42.7, T43.9, T45.9, T47.9, and T49.9. Intent is captured in 6th character of all other T36-T50 codes.*	Intentional self-harm poisoning by drugs, medicaments, and biological substances

*7th character of A or missing (reflects initial encounter, active treatment).

Regular Expression
((T3[679]9|T414|T427|T4[3579]9)2.|(?!(T3[679]9|T414|T427|T4[3579]9))(T3[6-9]|T4[0-9]|T50)..2)(A|$|\b)

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Opioid Overdose

Opioid Overdose (Fatal)

Select records with drug overdose as underlying cause code (X40–X44, X60-X64, X85, Y10-14) and any of the following codes _in any field_:

ICD-10 Codes	Description
T40.0	Poisoning by opium
T40.1	Poisoning by heroin
T40.2	Poisoning by other opioids
T40.3	Poisoning by methadone
T40.4	Poisoning by synthetic narcotics
T40.6	Poisoning by other/unspecified narcotics

Regular Expression Fatal Opioid Overdose: ^T40[0-46]
Regular Expression Fatal Heroin Overdose: ^T401
Regular Expression Fatal Synthetic Opioid Overdose: ^T404
Note: Overdose deaths due to Fentanyl are not captured using ICD-10 Codes because there is currently no specific ICD-10 code for fentanyl. Fentanyl deaths are captured by searching text literals on the death certificate. Fentanyl is a synthetic opioid so it should be coded as T40.4 but there is no way to specifically identify fentanyl if the term is not mentioned in literal text.

Opioid Overdose (Nonfatal)

Select records from the full ED or hospitalization dataset (do not restrict to the injury subset) containing any of the following codes in any field:

ICD-10-CM Codes*	Description
T40.0	Poisoning by opium
T40.1	Poisoning by heroin
T40.2	Poisoning by other opioids
T40.3	Poisoning by methadone
T40.4	Poisoning by synthetic narcotics
T40.60, T40.69	Poisoning by other/unspecified narcotics

*6th character of 1,2,3, or 4 (excludes adverse effects and underdosing). 7th character of A or missing (reflects initial encounter, active treatment).
Regular Expression Opioid Overdose: ((T40[0-4].|T406[09])[1-4])(A|$|\b)
Regular Expression Heroin Overdose: (T401.[1-4])(A|$|\b)
Regular Expression Fentanyl Overdose: (T4041[1-4])(A|$|\b)

FY2021 Changes affecting indicator (effective Oct 1, 2020):
- Code specific for fentanyl or fentanyl analogs was added to ICD-10-CM

Opioid Overdose (DOSE)

DOSE only includes unintentional and undetermined intent. Select records from the full ED or hospitalization dataset (do not restrict to the injury subset) containing any of the following codes in any field:

ICD-10-CM Codes*	Description
T40.0	Poisoning by opium
T40.1	Poisoning by heroin
T40.2	Poisoning by other opioids
T40.3	Poisoning by methadone
T40.4	Poisoning by synthetic narcotics
T40.60, T40.69	Poisoning by other/unspecified narcotics

6th character of 1 or 4 (excludes intentional, adverse effects and underdosing). 7th character of A or missing (reflects initial encounter, active treatment).
Regular Expression DOSE Opioid Overdose: **(**(T40[0-4].|T406[09])[14]**)(**A|$|\b**)**
Regular Expression DOSE Heroin Overdose: **(**T401.[14]**)(**A|$|\b**)**
Regular Expression DOSE Fentanyl Overdose: **(**T4041[14]**)(**A|$|\b**)**

FY2021 Changes affecting indicator (effective Oct 1, 2020):
- Code specific for fentanyl or fentanyl analogs was added to ICD-10-CM

Benzodiazepine Overdose

Benzodiazepine Overdose (Fatal)

Work in progress

Benzodiazepine Overdose (Nonfatal)

Select records from the full ED or hospitalization dataset (do not restrict to the injury subset) containing any of the following codes in any field:

ICD-10-CM Codes*	Description
T42.4	Poisoning by benzodiazepines

6th character of 1,2,3, or 4 (excludes adverse effects and underdosing). 7th character of A or missing (reflects initial encounter, active treatment).
Regular Expression: **(**T424.[1-4]**)(**A|$|\b**)**

Opioid Overdose (DOSE)

DOSE only includes unintentional and undetermined intent. Select records from the full ED or hospitalization dataset (do not restrict to the injury subset) containing any of the following codes in any field:

ICD-10-CM Codes*	Description
T42.4	Poisoning by benzodiazepines

6th character of 1 or 4 (excludes intentional, adverse effects and underdosing). 7th character of A or missing (reflects initial encounter, active treatment).
Regular Expression: **(**T424.[14]**)(**A|$|\b**)**

Stimulant Overdose

Stimulant Overdose (Fatal)

Select records with drug overdose as underlying cause code (X40–X44, X60-X64, X85, Y10-14) and any of the following codes *in any field*:

ICD-10 Codes	Description
T40.5	Poisoning by Cocaine
T43.6	Poisoning by Psychostimulants with abuse potential

Regular Expression
T405|T436

Stimulant Overdose (Nonfatal)

Select records from the full ED or hospitalization dataset (do not restrict to the injury subset) containing any of the following codes in any field:

ICD-10-CM Codes*	Description
T40.5	Poisoning by cocaine
T43.60	Poisoning by unspecified psychostimulants:
T43.61	Poisoning by caffeine
T43.62	Poisoning by amphetamines
T43.63	Poisoning by methylphenidate
T43.64	Poisoning by ecstasy
T43.65	Poisoning by Methamphetamines
T43.69	Poisoning by other psychostimulants

*6th character of 1,2,3, or 4 (excludes adverse effects and underdosing). 7th character of A or missing (reflects initial encounter, active treatment).

Regular Expression Stimulant Overdose: **(**(T405|T436).[1-4]**)(**A|$|\b**)**
Regular Expression Cocaine Overdose: **(**T405.[1-4]**)(**A|$|\b**)**
Regular Expression Methamphetamine Overdose: **(**T4365[1-4]**)(**A|$|\b**)**
Regular Expression Other Stimulants Overdose: **(**T436[^5][1-4]**)(**A|$|\b**)**

Stimulant Overdose (DOSE)

DOSE only includes unintentional and undetermined intent. Select records from the full ED or hospitalization dataset (do not restrict to the injury subset) containing any of the following codes in any field:

ICD-10-CM Codes*	Description
T40.5	Poisoning by cocaine
T43.60	Poisoning by unspecified psychostimulants:
T43.61	Poisoning by caffeine
T43.62	Poisoning by amphetamines
T43.63	Poisoning by methylphenidate
T43.64	Poisoning by ecstasy
T43.65	Poisoning by Methamphetamines
T43.69	Poisoning by other psychostimulants

*6th character of 1, or 4 (excludes intentional, adverse effects and underdosing). 7th character of A or missing (reflects initial encounter, active treatment).

Regular Expression Stimulant Overdose: **(**(T405|T436).[14]**)(**A|$|\b**)**
Regular Expression Cocaine Overdose: **(**T405.[14]**)(**A|$|\b**)**
Regular Expression Methamphetamine Overdose: **(**T4365[14]**)(**A|$|\b**)**

Cannabis-related

Cannabis-related (Nonfatal)

Select records from the full ED or hospitalization dataset (do not restrict to the injury subset) containing any of the following codes in any field:

ICD-10-CM Codes*	Description
T40.7 with *6th character of 1,2,3,4,5 (includes adverse effects; excludes underdosing)*	Poisoning or adverse effects of cannabis
F12	Cannabis use, abuse, dependence

*7th character of A or missing (reflects initial encounter, active treatment). F12 codes only have 5-6 characters

Regular Expression
```
^F12|(T407.[1-5])(A|$|\b)
```

Cannabinoid hyperemesis syndrome

NOTE: This indicator picks up suspected cases and is likely to be an overcount.

Select records from the full ED or hospitalization dataset (do not restrict to the injury subset) containing:

- A cannabis-related code (T40.7 with 6th character of 1,2,3,4,5 or F12), AND
- A vomiting-related code (R11.1, R11.2)

ICD-10-CM Codes*	Description
T40.7 with *6th character of 1,2,3,4,5 (includes adverse effects; excludes underdosing)*	Poisoning or adverse effects of cannabis
F12	Cannabis use, abuse, dependence
R11.1	Vomiting
R11.2	Nausea with vomiting, unspecified

Regular Expressions
```
^F12|(T407.[1-5])(A|$|\b)
(R11)(1|2)
```

Drug Use/Abuse/Dependence

All Drug Use/Abuse/Dependence (Nonfatal)

Select records from the full ED or hospitalization dataset (do not restrict to the injury subset) containing any of the following codes in any field:

ICD-10-CM Codes*	Description
F10	Alcohol related disorders
F11	Opioid related disorders
F12	Cannabis related disorders
F13	Sedative, hypnotic or anxiolytic related disorders
F14, F15	Cocaine, and Other Stimulant related disorders
F16	Hallucinogen related disorders
F17	Nicotine dependence
F18	Inhalant related disorders
F19	Other psychoactive substance related disorders

F codes only have 5-6 characters

Regular Expression All drug use/abuse/dependence: `^F1`

Regular Expression Opioid use/abuse/dependence: `^F11`

Regular Expression Stimulant use/abuse/dependence: `^F1[45]`

Alcohol-related

Alcohol-related deaths (Fatal)

Select records from the full fatality dataset (do not restrict to the injury subset) containing any of the following codes in any field:

ICD-10 Codes	Description
F10.3-F10.9	Alcoholic psychosis
F10.0, F10.1	Alcohol abuse
F10.2	Alcohol dependence syndrome
G62.1	Alcohol polyneuropathy
G31.2	Degeneration of nervous system due to alcohol
G72.1	Alcoholic myopathy
I42.6	Alcohol cardiomyopathy
K29.2	Alcoholic gastritis
K70.0-K70.4, K70.9	Alcoholic liver disease
K85.2	Alcohol-induced acute pancreatitis
K86.0	Alcohol-induced chronic pancreatitis
Q86.0	Fetal alcohol syndrome
P04.3	Fetus and newborn affected by maternal use of alcohol
X45, Y15	Alcohol poisoning
X65	Suicide by and exposure to alcohol
O35.4	Maternal care for (suspected) damage to fetus from alcohol
T51.0	Toxic effect of ethanol

Regular Expression

```
^F10|^G621|^G312|^G721|^I426|^K292|^K70|^K852|^K860|^Q860|^P043|^O354|^T510|^X45|^Y15|^X65
```

Alcohol-related (Nonfatal)

Select records from the full ED or hospitalization dataset (do not restrict to the injury subset) containing any of the following codes in any field:

ICD-10-CM Codes*	Description
F10	Alcohol related disorders
G62.1	Alcohol polyneuropathy
G31.2	Degeneration of nervous system due to alcohol
G72.1	Alcoholic myopathy
I42.6	Alcohol cardiomyopathy
K29.2	Alcoholic gastritis
K70	Alcoholic liver disease
K85.2	Alcohol-induced acute pancreatitis
K86.0	Alcohol-induced chronic pancreatitis
Q86.0	Fetal alcohol syndrome
P04.3	Fetus and newborn affected by maternal use of alcohol
O35.4	Maternal care for (suspected) damage to fetus from alcohol
O99.31	Alcohol use complicating pregnancy, childbirth, and the puerperium
T51.0	Toxic effect of ethanol

Regular Expression

```
^F10|^G621|^G312|^G721|^I426|^K292|^K70|^K852|^K860|^Q860|^P043|^O354|^O9931|^T510
```

MONTANA
EMS, TRAUMA SYSTEMS &
INJURY PREVENTION PROGRAM
PublicHealth IN THE 406

Last Updated: 5/20/25
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Neonatal abstinence syndrome

Confirmed neonatal abstinence syndrome

Select records from the full ED or hospitalization dataset (do not restrict to the injury subset) containing:

- A primary diagnosis code of Z38, AND
- A diagnosis code of P96.1 in any field

ICD-10-CM Codes*	Description
Z38	Liveborn infants according to place of birth and type of delivery
P96.1	Neonatal withdrawal symptoms from maternal use of drugs of addiction

Regular Expressions
(Z38)
(P961)

Suspected neonatal abstinence syndrome

Select records from the full ED or hospitalization dataset (do not restrict to the injury subset) containing:

- A primary diagnosis code of Z38, AND
- NO diagnosis code of P96.1 in any field, AND
- Any of the following codes in any field:

ICD-10-CM Codes*	Description
P04.14	Newborn affected by maternal use of opiates
P04.17	Newborn affected by maternal use of sedative-hypnotics
P04.1A	Newborn affected by maternal use of anxiolytics

Regular Expression
(P041)(4|7|A)

History:
- 9/17/2024: Definition created based on CSTE case definition:
  https://cdn.ymaws.com/www.cste.org/resource/resmgr/2019ps/final/19-MCH-01_final_7.31.19.pdf