# Appendix 1. ICD-9-CM and ICD-10-CM cannabis and psychodysleptics discharge codes with descriptions

| ICD-9-CM Code | Description                          | Note                          |
|---------------|--------------------------------------|-------------------------------|
| 304.30        | Cannabis dependence – unspecified   |                               |
| 304.31        | Cannabis dependence – continuous     |                               |
| 304.32        | Cannabis dependence – episodic        |                               |
| 304.33        | Cannabis dependence – in remission   |                               |
| 305.20        | Cannabis abuse – unspecified         |                               |
| 305.21        | Cannabis abuse – continuous          |                               |
| 305.22        | Cannabis abuse – episodic             |                               |
| 305.23        | Cannabis abuse – in remission        |                               |
| 969.6         | Poisoning – psychodysleptics [hallucinogens] | No sub-codes               |
| E854.1        | Accidental poisoning by psychodysleptics [hallucinogens] | No sub-codes               |
| E939.6        | Psychodysleptics [hallucinogens] causing adverse effects in therapeutic use | No sub-codes               |

| ICD-10-CM Code | Description                          | Note                          |
|---------------|--------------------------------------|-------------------------------|
| F12.10        | Cannabis abuse, uncomplicated        |                               |
| F12.11        | Cannabis abuse, in remission         | Added in FY 2018 (effective Oct 1, 2017) |
| F12.120       | Cannabis abuse with intoxication, uncomplicated |                               |
| F12.121       | Cannabis abuse with intoxication delirium |                               |
| F12.122       | Cannabis abuse with intoxication with perceptual disturbance |                               |
| F12.129       | Cannabis abuse with intoxication, unspecified |                               |
| F12.13        | Cannabis abuse with withdrawal       | Added in FY 2021 (effective Oct 1, 2020; not present in study data) |
| F12.150       | Cannabis abuse with psychotic disorder with delusions |                               |
| F12.151       | Cannabis abuse with psychotic disorder with hallucinations |                               |
| F12.159       | Cannabis abuse with psychotic disorder, unspecified |                               |
| F12.180       | Cannabis abuse with cannabis-induced anxiety disorder |                               |
| F12.188       | Cannabis abuse with other cannabis-induced disorder |                               |
| F12.19        | Cannabis abuse with unspecified cannabis-induced disorder |                               |
| F12.20        | Cannabis dependence, uncomplicated  |                               |
| F12.21        | Cannabis dependence, in remission    |                               |
| F12.220       | Cannabis dependence with intoxication, uncomplicated |                               |
| F12.221       | Cannabis dependence with intoxication delirium |                               |
| F12.222       | Cannabis dependence with intoxication with perceptual disturbance |                               |
| F12.229       | Cannabis dependence with intoxication, unspecified |                               |
| F12.23        | Cannabis dependence with withdrawal  | Added in FY 2019 (effective Oct 1, 2018) |
| F12.250       | Cannabis dependence with psychotic disorder with delusions |                               |
| F12.251       | Cannabis dependence with psychotic disorder with hallucinations |                               |
| F12.259       | Cannabis dependence with psychotic disorder, unspecified |                               |
| F12.280       | Cannabis dependence with cannabis-induced anxiety disorder |                               |
| F12.288       | Cannabis dependence with other cannabis-induced disorder |                               |
| F12.29        | Cannabis dependence with unspecified cannabis-induced disorder |                               |
| ICD-10-CM Code | Description | Note |
|---------------|-------------|------|
| F12.90        | Cannabis use, unspecified, uncomplicated |     |
| F12.920       | Cannabis use, unspecified with intoxication, uncomplicated |     |
| F12.921       | Cannabis use, unspecified with intoxication delirium |     |
| F12.922       | Cannabis use, unspecified with intoxication with perceptual disturbance |     |
| F12.929       | Cannabis use, unspecified with intoxication, unspecified |     |
| F12.93        | Cannabis use, unspecified with withdrawal | Added in FY 2019 (effective Oct 1, 2018) |
| F12.950       | Cannabis use, unspecified with psychotic disorder with delusions |     |
| F12.951       | Cannabis use, unspecified with psychotic disorder with hallucinations |     |
| F12.959       | Cannabis use, unspecified with psychotic disorder, unspecified |     |
| F12.980       | Cannabis use, unspecified with anxiety disorder |     |
| F12.988       | Cannabis use, unspecified with other cannabis-induced disorder |     |
| F12.99        | Cannabis use, unspecified with unspecified cannabis-induced disorder |     |
| T40.7X1A      | Poisoning by cannabis (derivatives), accidental (unintentional) initial encounter |     |
| T40.7X2A      | Poisoning by cannabis (derivatives), intentional self-harm initial encounter |     |
| T40.7X3A      | Poisoning by cannabis (derivatives), assault initial encounter |     |
| T40.7X4A      | Poisoning by cannabis (derivatives), undetermined initial encounter |     |
| T40.7X5A      | Adverse effect of cannabis (derivatives), initial encounter |     |
| T40.8X1A      | Poisoning by lysergide [LSD] (accidental) initial encounter |     |
| T40.8X2A      | Poisoning by lysergide [LSD] (self-harm) initial encounter |     |
| T40.8X3A      | Poisoning by lysergide [LSD] (assault) initial encounter |     |
| T40.8X4A      | Poisoning by lysergide [LSD] (undetermined) initial encounter |     |
| T40.901A      | Poisoning by unspecified psychodysleptics [hallucinogens] (accidental) initial encounter |     |
| T40.902A      | Poisoning by unspecified psychodysleptics [hallucinogens] (self-harm) initial encounter |     |
| T40.903A      | Poisoning by unspecified psychodysleptics [hallucinogens] (assault) initial encounter |     |
| T40.904A      | Poisoning by unspecified psychodysleptics [hallucinogens] (undetermined) initial encounter |     |
| T40.905A      | Adverse effect of unspecified psychodysleptics [hallucinogens] initial encounter |     |
| T40.991A      | Poisoning by other psychodysleptics [hallucinogens] (accidental) initial encounter |     |
| T40.992A      | Poisoning by other psychodysleptics [hallucinogens] (self harm) initial encounter |     |
| T40.993A      | Poisoning by other psychodysleptics [hallucinogens] (assault) initial encounter |     |
| T40.994A      | Poisoning by other psychodysleptics [hallucinogens] (undetermined) initial encounter |     |
| T40.995A      | Adverse effect of other psychodysleptics [hallucinogens] initial encounter |     |
**Appendix 2.** Annual counts of ED and hospital discharges with ICD-9-CM and ICD-10-CM codes for cannabis use disorders (Indicator 1) and poisoning/adverse effects of psychodysleptics (Indicator 2), 2011-2018

| Coding Scheme | Year | Indicator 1: Cannabis use disorders<sup>a</sup> | Indicator 2: Poisoning by and adverse effects of psychodysleptics<sup>b</sup> | Total | Indicator 1: Cannabis use disorders<sup>a</sup> | Indicator 2: Poisoning by and adverse effects of psychodysleptics<sup>b</sup> | Total |
|---------------|------|---------------------------------|---------------------------------|-------|---------------------------------|---------------------------------|-------|
| ICD-9-CM      |      |                                 |                                 |       |                                 |                                 |       |
|               | 2011 | 7,993 0.60%                      | 265 0.02%                       | 1,327,248 | 6,228 1.30%                       | 124 0.03%                       | 480,048 |
|               | 2012 | 9,767 0.69%                      | 274 0.02%                       | 1,424,217 | 6,625 1.40%                       | 143 0.03%                       | 473,777 |
|               | 2013 | 13,815 0.85%                     | 474 0.03%                       | 1,620,114 | 8,179 1.76%                       | 161 0.03%                       | 464,870 |
|               | 2014 | 17,767 1.01%                     | 748 0.04%                       | 1,756,313 | 11,364 2.43%                      | 168 0.04%                       | 468,157 |
|               | Q1-Q3 2015 | 10,126 0.73%            | 468 0.03%                       | 1,389,344 | 10,825 3.00%                      | 163 0.05%                       | 360,379 |
| ICD-10-CM     | Q4 2015 | 4,022 0.87%                     | 196 0.04%                       | 462,033  | 3,907 3.31%                       | 68 0.06%                        | 118,214 |
|               | 2016 | 19,876 1.03%                     | 803 0.04%                       | 1,920,533 | 16,773 3.49%                      | 260 0.05%                       | 480,812 |
|               | 2017 | 21,106 1.10%                     | 943 0.05%                       | 1,911,468 | 16,480 3.41%                      | 278 0.06%                       | 483,113 |
|               | 2018 | 21,523 1.13%                     | 1,237 0.06%                     | 1,911,545 | 17,064 3.54%                      | 295 0.06%                       | 481,536 |
|               | Total | 125,995 0.92%                   | 5,408 0.04%                     | 13,722,815 | 97,445 2.56%                      | 1,660 0.04%                     | 3,810,906 |

<sup>a</sup> Indicator 1: Cannabis use disorders included ICD-9-CM codes 304.3X and 305.2X and all ICD-10-CM F12 codes

<sup>b</sup> Indicator 2: Poisoning and adverse effects of psychodysleptics included ICD-9-CM codes 969.6, E854.1, and E939.6, and ICD-10-CM codes T40.7X1A-T40.7X5A, T40.8X1A-T40.8X4A, T40.901A-T40.905A, T40.991A-T40.995A

Data source: Colorado Hospital Association, Jan 1, 2011-Dec 31, 2018
Appendix 3. Total number of cannabis ICD-10-CM codes in ED and hospital discharges from January 1, 2016 through December 31, 2018.

| ICD-10-CM Code                                                                 | Frequency (%)                  | ED Visits          | Hospitalizations |
|--------------------------------------------------------------------------------|--------------------------------|--------------------|------------------|
| F12.10: Cannabis abuse (uncomplicated)                                       | 17,764 (25.42)                | 15,153 (27.38)     |
| F12.11: Cannabis abuse, in remission                                         | 38 (0.05)                     | 174 (0.31)         |
| F12.12, -0,-1,2,-9: Cannabis abuse with intoxication (uncomplicated, with delirium, with perceptual disturbance, and unspecified) | 1,141 (1.63)                  | 184 (0.33)         |
| F12.15, -0, -1, -9: Cannabis abuse with psychotic disorder (with delusions, with hallucinations, unspecified) | 71 (0.1)                      | 163 (0.29)         |
| F12.18, -0, -8: Cannabis abuse with other cannabis-induced disorder (cannabis-induced anxiety disorder, cannabis-induced disorder) | 823 (1.18)                    | 324 (0.59)         |
| F12.19: Cannabis abuse with unspecified cannabis-induced disorder             | 100 (0.14)                    | 73 (0.13)          |
| F12.20: Cannabis dependence complicated                                        | 2,227 (3.19)                  | 4,386 (7.92)       |
| F12.21: Cannabis dependence in remission                                      | 134 (0.19)                    | 226 (0.41)         |
| F12.22, -0, -1, -2, -9: Cannabis dependence with intoxication (uncomplicated, with delirium, with perceptual disturbance, and unspecified) | 85 (0.12)                     | 43 (0.08)          |
| F12.23: Cannabis dependence with withdrawal                                   | <11                           | 14 (0.03)          |
| F12.25, -0, -1, -9: Cannabis dependence with psychotic disorder (with delusions, with hallucinations, unspecified) | 25 (0.04)                     | 126 (0.23)         |
| F12.28, -0, -8: Cannabis dependence with other cannabis-induced disorder (cannabis-induced anxiety disorder, other cannabis-induced disorder) | 116 (0.17)                    | 173 (0.31)         |
| F12.29: Cannabis dependence with unspecified cannabis-induced disorder        | 52 (0.07)                     | 110 (0.2)          |
| F12.90: Cannabis use, unspecified (uncomplicated)                             | 39,986 (57.22)                | 31,230 (56.42)     |
| F12.92, -0, -1, -2, -9: Cannabis use, unspecified with intoxication (uncomplicated, with delirium, with perceptual disturbance, and unspecified) | 2,194 (3.14)                  | 393 (0.71)         |
| F12.95, -0, -1, -9: Cannabis use, unspecified with psychotic disorder (with delusions, with hallucinations, unspecified) | 84 (0.12)                     | 203 (0.37)         |
| F12.98, -0, -8: Cannabis use, unspecified with other cannabis-induced disorder (with anxiety disorder, cannabis-induced disorder) | 839 (1.2)                     | 306 (0.55)         |
| F12.99: Cannabis use with unspecified cannabis-induced disorder               | 995 (1.42)                    | 1,149 (2.08)       |
| T40.7X1A: Poisoning by cannabis (accidental) initial encounter                | 1,551 (2.22)                  | 461 (0.83)         |
| T40.7X2A: Poisoning by cannabis (self-harm) initial encounter                 | 52 (0.07)                     | 91 (0.16)          |
| T40.7X3A: Poisoning by cannabis (assault) initial encounter                   | <11                           | 0 (0)              |
| T40.7X4A: Poisoning by cannabis (undetermined) initial encounter              | 84 (0.12)                     | 29 (0.05)          |
| T40.7X5A: Poisoning by adverse effect of cannabis initial encounter           | 940 (1.35)                    | 254 (0.46)         |
| T40.8X1A: Poisoning by lysergide [LSD] (accidental) initial encounter         | 352 (0.5)                     | 34 (0.06)          |
| T40.8X2A: Poisoning by lysergide [LSD] (self-harm) initial encounter         | 25 (0.04)                     | 9 (0.02)           |
| T40.8X3A: Poisoning by lysergide [LSD] (assault) initial encounter           | <11                           | <11                |
| T40.8X4A: Poisoning by lysergide [LSD] (undetermined) initial encounter       | 115 (0.16)                    | <11                |
| T40.901A: Poisoning by unspecified psychodysleptics [hallucinogens] (accidental) initial encounter | 11 (0.02)                     | <11                |
| T40.902A: Poisoning by unspecified psychodysleptics [hallucinogens] (self-harm) initial encounter | <11                           | <11                |
| T40.903A: Poisoning by unspecified psychodysleptics [hallucinogens] (assault) initial encounter | 0 (0.0)                       | 0 (0.0)            |
| ICD-10-CM Code | Frequency (%) | ED Visits | Hospitalizations |
|----------------|---------------|-----------|------------------|
| **T40.904A:** Poisoning by unspecified psychodysleptics [hallucinogens] (undetermined) initial encounter | <11 | 0 (0.0) |
| **T40.905A:** Adverse effect of unspecified psychodysleptics [hallucinogens] initial encounter | <11 | 0 (0.0) |
| **T40.991A:** Poisoning by other psychodysleptics [hallucinogens] (accidental) initial encounter | 37 (0.05) | 18 (0.03) |
| **T40.992A:** Poisoning by other psychodysleptics [hallucinogens] (self harm) initial encounter | <11 | <11 |
| **T40.993A:** Poisoning by other psychodysleptics [hallucinogens] (assault) initial encounter | <11 | 0 (0.0) |
| **T40.994A:** Poisoning by other psychodysleptics [hallucinogens] (undetermined) initial encounter | <11 | <11 |
| **T40.995A:** Adverse effect of other psychodysleptics [hallucinogens] initial encounter | 18 (0.03) | <11 |