Youth Substance Use & Harms in the SWPH Region

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Summary

Local youth report using alcohol, tobacco, e-cigarettes, cannabis, and magic mushrooms more than youth in Ontario. Over half of local youth report drinking alcohol in the last 12 months, approximately 10% higher compared to youth in Ontario. However, the use of tobacco was the most significant with youth in the SWPH region, who reported smoking 2x more than youth in Ontario.

More than 1 in 3 youth in the SWPH region reported using alcohol, cannabis, and smoking a full tobacco cigarette for the first time in grade 9.

As substance-related harms have been increasing among adults in the region, focusing on youth for health promotion and local programs could impact these harms in adults by delaying early initiation and substance use over time.

Substance Use Among Youth

Youth, Substance Use and Public Health

Substance use in youth can have lasting impacts. For example, early initiation and excessive or frequent substance use could lead to certain chronic diseases and substance use disorders later in life.[1] It is also associated with learning and memory problems, impacting educational attainment.[1]

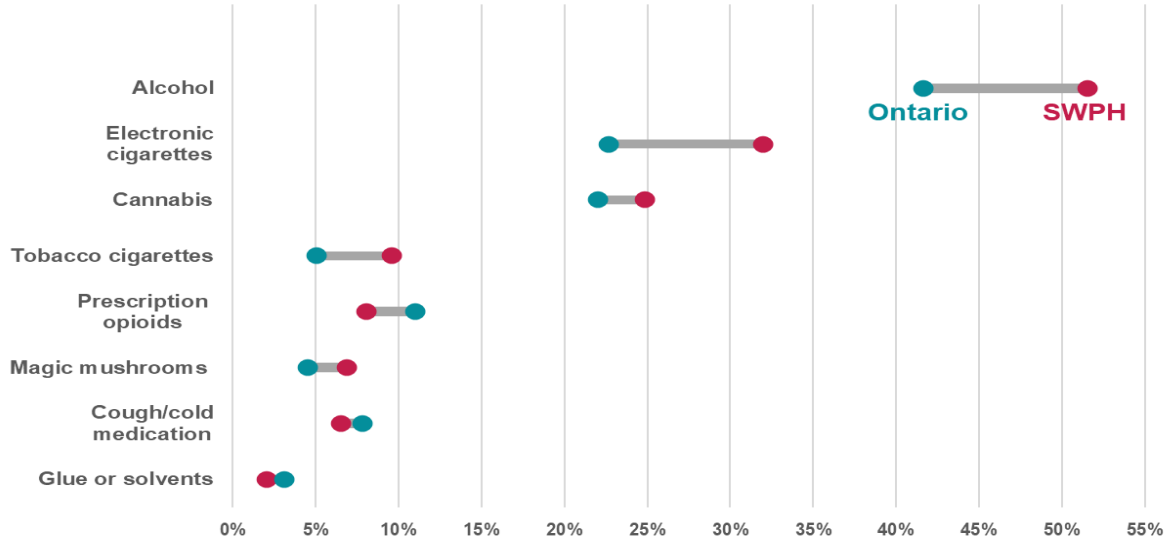
Early intervention is imperative since preventing or reducing substance use among youth may avert long-term negative health impacts.[1]

Self-Reported Substance Use in Youth

In 2019, youth in grades 7 to 12 in the SWPH region were more likely to report using several substances compared to youth across Ontario. This includes alcohol, electronic cigarettes, cannabis, tobacco cigarettes, and magic mushrooms (**Figure 1**). However, only the use of tobacco cigarettes was significantly different from the provincial proportion.

Figure 1

Over 50 percent of SWPH youth report having consumed alcohol in the last 12 months compared to 42 percent of youth across Ontario.

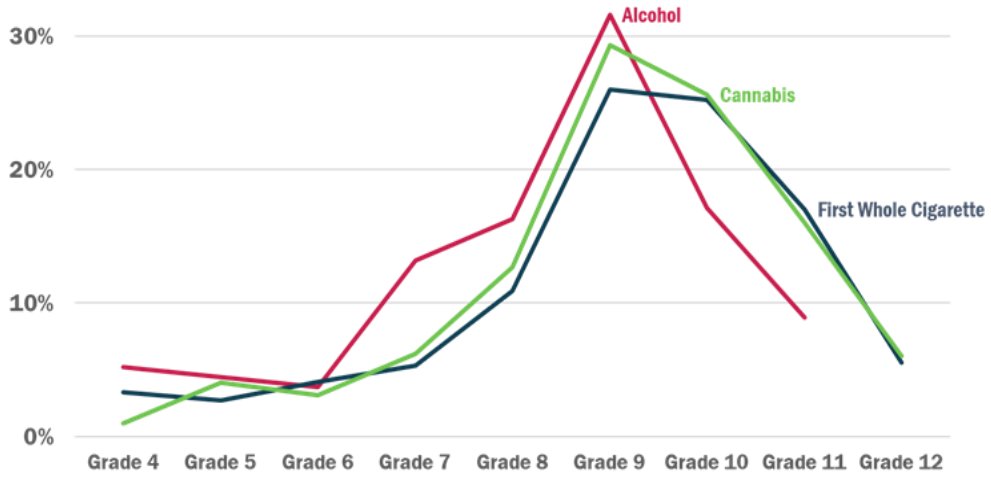


Over half (51.5%) of local youth reported having consumed alcohol (excluding those who only had a few sips to try it) in the last 12 months, which was higher compared to youth in Ontario (41.7%).

Youth who reported having used a substance were also asked when they initiated the use of that substance (used it for the first time). For alcohol, cannabis, and tobacco cigarettes, a large proportion of local youth reported using them for the first time when they began high school in Grade 9 (**Figure 2**). This was comparable to youth in Ontario (not shown). This supports evidence that suggests beginning interventions early would have the most impact on decreasing substance use among youth and it's associated negative health and societal outcomes in adulthood.[2]

Figure 2

Over 30 percent of SWPH youth in grades 9 to 12 who reported using alcohol* said they began doing so in Grade 9.

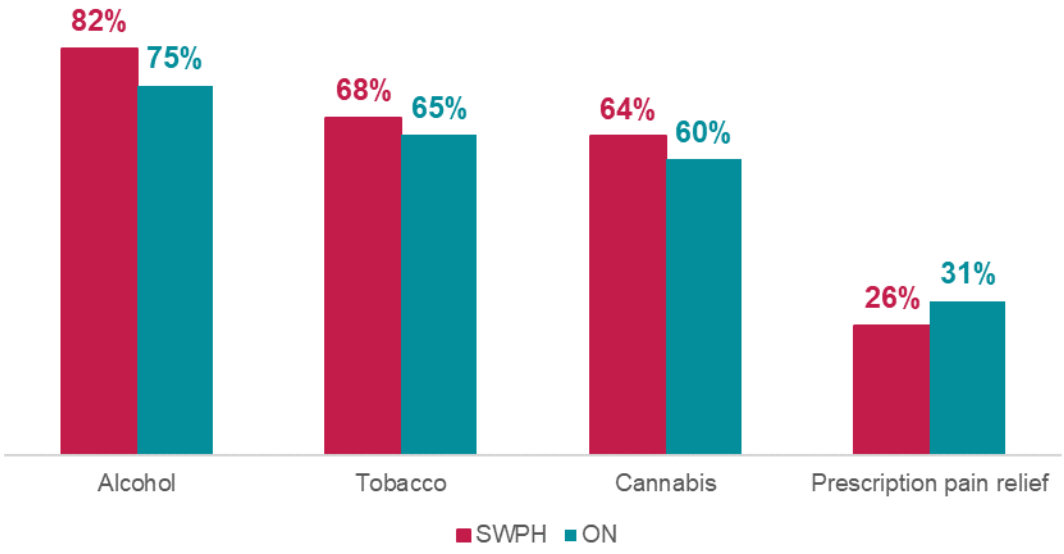


*more than a few sips

Among local youth who reported using substances, a large proportion reported that they felt that many substances were easy to access from various sources (**Figure 3**). Local youth reported ease of access slightly more than youth in Ontario for most substances, aside from prescription pain medications (**Figure 3**).

Figure 3

A large proportion of youth reported that alcohol, tobacco, and cannabis products were easy to access.



Alcohol use

Drank alcohol

In 2019, nearly 3 in 4 youth in grades 7 to 12 reported having consumed alcohol (excluding those who only had a few sips to try it). This was more compared to youth in Ontario (74.7% versus 64.8%, respectively).

In the SWPH region, male youth and female youth were comparable when it comes to ever having alcohol in their lifetime, with female youth reporting drinking alcohol slightly more (see below).

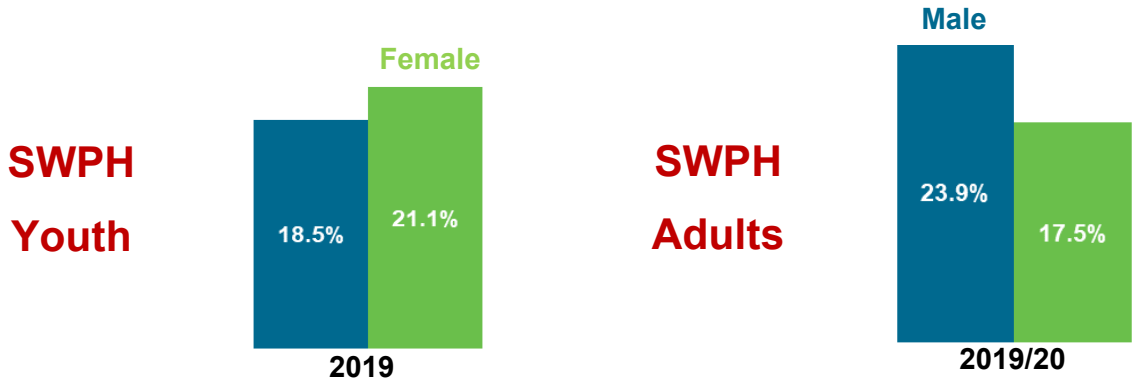
5+ drinks on a single occasion

Youth in the SWPH region also reported heavy or binge drinking in the past month (5+ drinks on a single occasion) more than youth in Ontario. Approximately 20% of local youth reported heavy drinking in 2019 compared to 14.8% of youth in Ontario (not shown).

Female youth reported drinking 5+ drinks on a single occasion in the past month approximately 3% more compared to male youth (21.1% versus 18.5%, respectively). This was different than for adults in the SWPH region, where males consistently reported heavy drinking over 5% more than females between 2015/16 and 2019/20 (**Figure 4**).

Figure 4

In contrast to adults, more female youth reported heavy drinking in the last month compared to male youth.

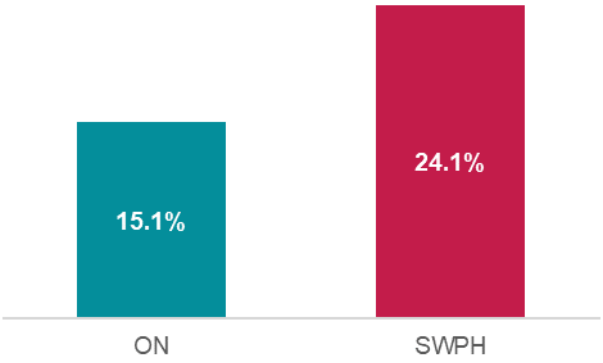


Drank enough alcohol to feel drunk

In 2019, a significantly higher proportion of local youth in grades 7 to 12 reported drinking enough alcohol to feel drunk in the past month compared to youth in Ontario. Nearly 1 in 4 youth report getting drunk compared to about 1 in 6 youth in Ontario (**Figure 5**).

Figure 5

A significantly higher proportion of local youth reported drinking enough alcohol to get drunk in the last 4 weeks compared to youth in Ontario.



Tobacco & e-cigarette use

Smoked a tobacco cigarette

In 2019, youth in the SWPH region also reported smoking tobacco cigarettes significantly more than youth in Ontario (9.6% compared to 5.0%, respectively). Those who only smoked a few puffs were considered 'non-smokers' and were not included.

Data source: The Ontario Student Drug Use and Health Survey (OSDUHS), CAMH, 2019

Male youth reported smoking tobacco cigarettes in the last 12 months more than female youth in the SWPH region (11.7% versus 7.4%, respectively).

About 2% of local youth reported smoking 1 or more tobacco cigarettes daily, which was comparable to youth in Ontario.

Used an electronic cigarette

In 2019, youth in the SWPH region reported having used an electronic cigarette (e-cigarette) beyond just trying it (those who only smoked a few puffs were not included) more than youth in Ontario (**Figure 6**). Unlike tobacco cigarettes, nearly 5% more female youth reported using e-cigarettes compared to male youth in the last year (**Figure 7**).

Figure 6

E-cigarette use among youth in the SWPH region was nearly 10% higher than youth in Ontario.

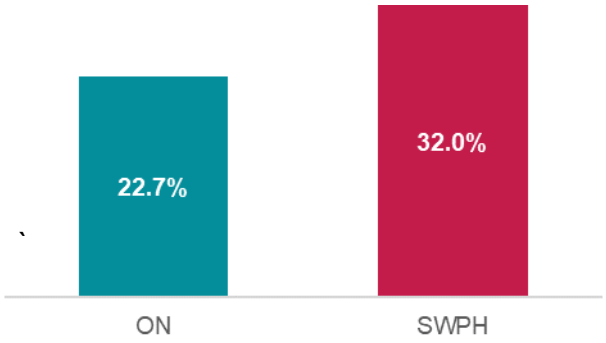
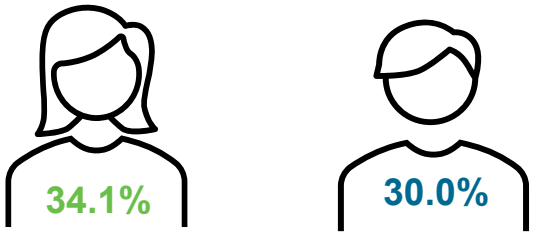


Figure 7

Has used an e-cigarette by sex, SWPH, 2019

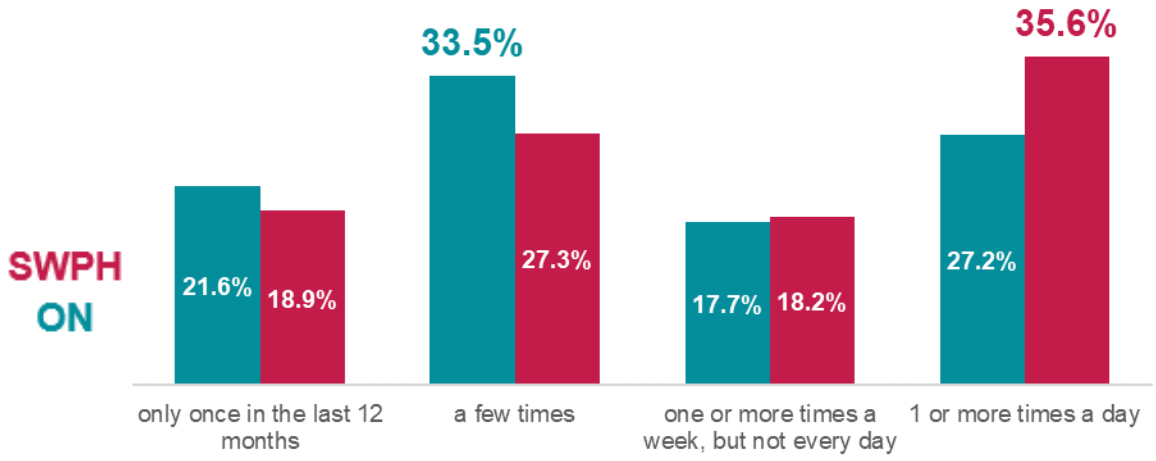


Frequency of electronic cigarette use

Youth who reported having used an e-cigarette in the last 12 months were also asked about their frequency of use. The majority reported that they used an e-cigarette daily while the majority of youth in Ontario reported only using one a few times in the last year (**Figure 8**).

Figure 8

Of youth in the SWPH region who reported having used an e-cigarette in the last 12 months, the majority reported using it daily.



Cannabis use

Cannabis use among youth can be especially harmful and tied to many adverse outcomes. For example, initiating cannabis use early in adolescence as well as continuing use frequently or over a long period of time can increase the risk of addiction into adulthood.[3,4] Further, early initiation has been linked with poor educational outcomes such as difficulty studying and dropping out of school.[3,5]

Frequency of cannabis use

In 2019, approximately 25% of youth in both the SWPH region and Ontario reported using cannabis (marijuana or hashish) in the last year. This was the 3rd most common substance that local youth reported using (behind alcohol and tobacco) and the 2nd most common for youth in Ontario (behind alcohol).

1 in 4
youth use cannabis

Further, youth in the SWPH region reported using cannabis (marijuana or hashish) one or more times a week slightly more than youth in Ontario (7.7% versus 6.8%, respectively).

Used cannabis and alcohol at the same time

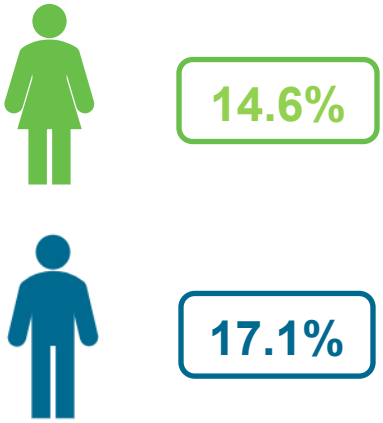
About 1 in 6 youth in grades 9 to 12 in the SWPH region reported using both alcohol and cannabis on the same occasion in the last year. This was slightly more than youth in Ontario (**Figure 9**). Local male youth reported doing so significantly more (17.1%) than female youth (14.6%) (**Figure 10**).

Figure 9

Youth in high school in the SWPH region who reported having used both cannabis and alcohol on one occasion was comparable to youth in Ontario.

Figure 10

Has used cannabis and alcohol on the same occasion, males vs. females, SWPH, 2019



Cannabis Severity of Dependence Scale (SDS)

The Ontario Student Drug Use and Health Survey (OSDUHS) survey includes a severity of dependence scale (SDS), which is comprised of 5 questions. It can be combined into an overall score to indicate the degree of psychological dependence of respondents. This is a universal set of questions that were also used for adults in the *Canadian Community Health Survey (CCHS)* in 2019/2020. The OSDUHS version of these questions were:

1. Being worried that cannabis use was out of control in the last 3 months
2. Being worried about missing cannabis smoke in the last 3 months
3. Being worried about use of cannabis in the last 3 months
4. Wished to stop using cannabis in the last 3 months
5. Having difficulty to stop using cannabis in the last 3 months

Students were asked each of these questions in terms of how often it had occurred (frequency-based), which was the same as for adults in the 2019/2020 CCHS. However, for the current report, they were each re-categorized into “yes” or “no/never” rather than frequency-based responses.

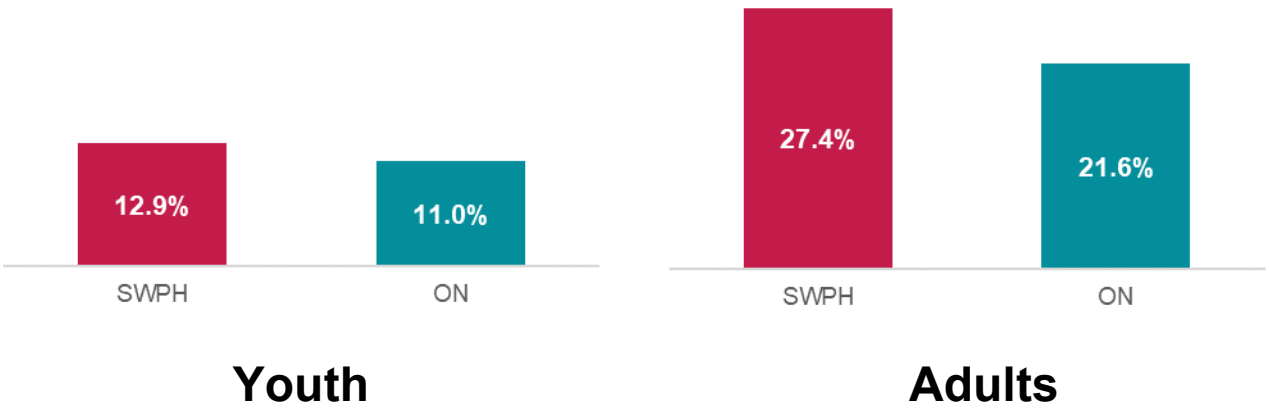
They were then combined to understand any dependence of respondents, potentially indicating early signs of addiction, rather than the degree of dependence. Therefore, if respondents stated that they were worried or had difficulty with any of the 5 questions, they were considered “dependent”.

Psychological dependence on cannabis

Approximately 2% more SWPH youth reported having difficulty with at least one item of the SDS for cannabis (listed above) compared to respondents across Ontario (**Figure 11**). Although this is a marginal difference, it is larger among adults which could indicate that there is increased dependency the longer cannabis is used (**Figure 11**).

Figure 11

Similar to adults, more youth in grades 9 to 12 in the Southwestern Public Health region report having difficulty with at least one item of the severity of dependence scale* for cannabis compared to youth in Ontario.



*Youth – last 3 months
Adults – last 12 months

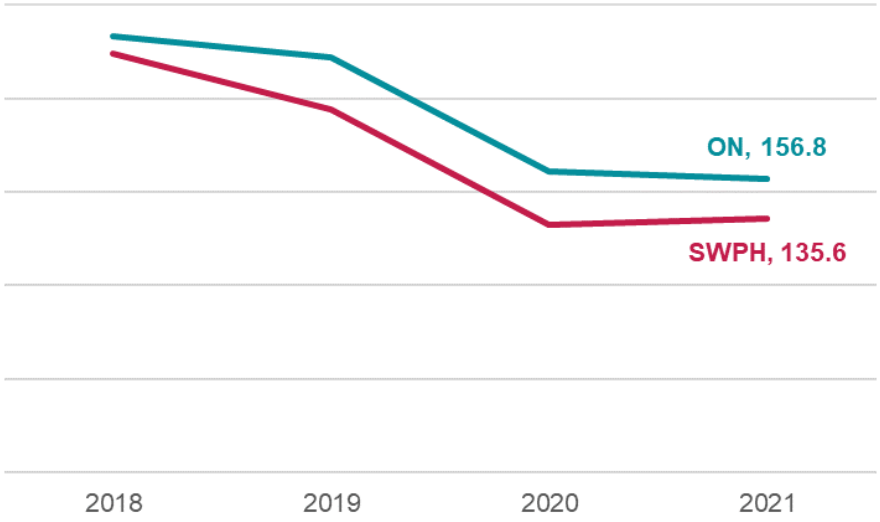
Substance-related harms

Emergency department visits due to alcohol

The rate of emergency department (ED) visits due to conditions attributed to alcohol among youth has declined locally over time, reaching a low of 135.6 per 100,000. This trend is also evident across Ontario and the rate in the SWPH region remains below the provincial rate (**Figure 12**).

Figure 12

The rate of emergency department visits due to alcohol among youth has been declining in the Southwestern Public Health region and in Ontario since 2018.



The decrease in rate in 2020 could be partly due to the COVID-19 pandemic, which could result in the rate over the next few years showing another trend. Therefore, this indicator will be important to monitor in the future.

Hospitalizations due to conditions attributable to alcohol

Between 2011 and 2021, the rate of hospitalizations due to alcohol among youth 19 and under reached a high of 45.9 per 100,000 in 2016 before declining marginally into 2021. This is unlike the rate among adults which increased year over year reaching a high in 2021.

44.5*
per 100,000

*average between 2011 & 2021

Conclusion

Local youth report using substances more often than youth in Ontario and are beginning to do so early on (Grade 9). As substance-related harms have been increasing among adults in the region, focusing on youth for health promotion and local programs could reduce or prevent these harms in adults by delaying early initiation and substance use over time.

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Data sources

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4. Population Estimates (2011-2021), Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO, Data accessed: August 2018

Appendix A

Technical appendix – ICD-10 codes

ED visits (unscheduled) for conditions entirely caused by alcohol (15+ years old)

- 3-digit All Dx ICD code
    - F10 (mental and behavioural disorders due to use of alcohol. i.e. acute intoxication, harmful use, withdrawal),
    - K70 (alcoholic liver disease),
    - T51 (toxic effect of alcohol),
    - X45 (accidental poisoning by and exposure to alcohol),
    - X65 (intentional self-poisoning by and exposure to alcohol),
    - Y15 (poisoning by and exposure to alcohol, undetermined intent)
- 4-digit All Dx ICD code
    - E24.4 (alcohol-induced pseudo-Cushing syndrome),
    - G31.2 (degeneration of nervous system due to alcohol),
    - G62.1 (alcoholic polyneuropathy),
    - G72.1 (alcoholic myopathy),
    - I42.6 (alcoholic cardiomyopathy),
    - K29.2 (alcoholic gastritis),
    - K85.2 (alcohol-induced acute pancreatitis),
    - K86.0 (alcohol-induced chronic pancreatitis),
    - O35.4 (maternal care for (suspected) damage to fetus from alcohol),
    - Q86.0 (fetal alcohol syndrome (dysmorphic)),
    - R78.0 (finding of alcohol in blood)

Hospitalizations for conditions entirely caused by alcohol (15+ years old)

- Acute care facilities only
- 3-digit All Dx ICD code = F10, K70, T51, X45, X65, Y15
- 4-digit All Dx ICD code = E24.4, G31.2, G62.1, G72.1, I42.6, K29.2, K85.2, K86.0, O35.4, Q86.0, R78.0
- DSM-IV Axis I Primary or DSM-IV Axis I Sec Dx or DSM-IV Axis I Tert Dx or DSM-IV Axis I Quat Dx or DSM-IV Axis II Other Primary Dx or DSM-IV Axis II Other Sec Dx = 291.0, 291.1, 291.2, 291.3, 291.5, 291.81, 291.82, 291.89, 291.9, 303.00, 303.90, 305.00
- DSM-5 Psychiatric Dx A or DSM-5 Psychiatric Dx B or DSM-5 Psychiatric Dx C or DSM-5 Psychiatric Dx D or DSM-5 Psychiatric Dx E or DSM-5 Psychiatric Dx F = 291.0, 291.1, 291.2, 291.81, 291.82, 291.89, 291.9, 303.00, 303.90, 305.00, F10.0, F10.1, F10.2, F10.3, F10.4, F10.5, F10.6, F10.7, F10.8, F10.9

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