ADVERSE CHILDHOOD EXPERIENCES + SUBSTANCE USE
SUMN.org FACT SHEET 2020

Adverse Childhood Experiences (ACEs)
Definition
ACEs are stressful or traumatic experiences, including abuse, neglect and a range of household dysfunction. ACEs data included in this fact sheet are from the 2019 Minnesota Student Survey (MSS); ACE scores* are calculated by adding up the number of the following adverse experiences reported by each student (from 0 to 8):
- Having a parent/guardian who is currently in jail, and/or has been in jail
- Living with someone who drinks too much alcohol
- Living with someone who uses illegal drugs or abuses prescription drugs
- Having been verbally abused by a parent or adult in the household
- Having been physically abused by a parent or adult in the household
- Witnessing domestic abuse of parents/adults in household
- Having been sexually abused by an older or stronger family member and/or an adult or other person outside the family
- Living with someone who has depression or mental health issues (Added in 2019)

Prevalence + Frequency
According to the 2019 Minnesota Student Survey (MSS):
- Of Minnesota’s 8th, 9th, and 11th graders, nearly half have experienced at least one ACE.
- The most frequently reported ACEs are household mental illness and parental incarceration. The least reported are sexual abuse and household drug use.

ACEs Reported by Minnesota 8th, 9th, and 11th Graders, 2019 MSS

*ACE scores are calculated differently by different entities, and cannot be compared across sources. In fact, the ACE scores calculated from the MSS changed from 2016 to 2019; in 2019, the survey added the question about household mental health issues.
Disparities Between Populations

Some populations of students are more likely to have experienced ACEs. Female students are more likely to report ACEs: 42% percent of male students, and 53% of female students have 1 or more ACEs. Female students are almost 4 times as likely to report sexual abuse, but that doesn’t account for all of the difference: they report higher rates of each ACE measured on the MSS.

Sexual minority students (lesbian, gay, bisexual, pansexual, and queer (LGBPQ), and transgender/genderqueer/genderfluid (TGG) students also have high rates of ACEs. While 46% of heterosexual students have 1+ ACEs, bisexual (77%); gay or lesbian (75%); pansexual (84%); queer (71%); and TGG (80%) students have much higher chances of having experienced 1+ ACEs.

Some ethnic and racial populations also suffer disparities: American Indian/Alaskan Native (75%); Hispanic/Latino (53%); Hawaiian/Pacific Islander (57%); and multi-racial (65%) students are at higher risk of 1+ ACEs. Asian (44%); Black or African American (46%); and white (46%) students have rates close to the state average (48%).

Students who meet some measure of poverty, as measured on the MSS, are also disproportionately vulnerable to ACEs. Of those students who reported having to skip meals, 84% have 1+ ACEs, while 63% those who receive free or reduced price lunches do. Over 70% of students who report having experienced homelessness in the past year have 1+ ACEs.

Risk for Substance Use and Behavioral Health Issues
ACEs put individuals at risk for a number of negative outcomes across the lifespan, including alcohol, tobacco and other drug use, as well as depression and suicidal behaviors.

Substance Use

- Substance use increases in a stepwise manner, in relation to the number of ACEs experienced. For example, 7% students with 0 ACEs reported past-month alcohol use, while 39% of students with 4+ ACEs reported drinking. Students with 4+ ACEs are 5.4 times more likely to report alcohol use, compared to those with 0 ACEs (see graph).
- This pattern also appears with other substances. Compared to students with 0 ACEs, those with 4+ ACEs were...
  - **5.2 times** more likely to use e-cigarettes
  - **8.9 times** more likely to use marijuana
  - **12.6 times** more likely to report prescription drug misuse... in the past month

Mental Health

- Students with more ACEs are also more likely to report mental health issues. Compared to those with 0 ACEs, students with 4+ ACEs are...
  - **5.2 times** more likely to report depression (10.7% for 0 ACEs vs. 56.1% for 4+ ACEs)
  - **4.4 times** more likely to report anxiety in the past 2 weeks (13.8% vs. 59.9%)
  - **7.4 times** more likely to report past-year self-harm (7.1% vs. 53.0%)
  - **10.5 times** more likely to report having suicidal thoughts in the past year (4.3% vs. 45.6%)
Protective Factors Against the Effects of ACEs

Although students who have experienced ACEs are at increased risk of substance use and other health risks, there is hope. Positive experiences, such as caring relationships with adults, can buffer the negative effects of ACEs. For instance, compared to their peers with no ACEs, students with 4+ ACEs are less likely to engage in substance use if they also...

- ...feel their parents care quite a bit or very much about them.
- ...feel the teachers and adults in their schools care about them.
- ...feel there is a positive school climate (if they feel that school rules are fair, and that teachers care about them and listen to them).
- ...have an opportunity to participate in activities that develop teamwork and leadership skills.

Positive effect of protective factors on e-cigarette use among students with 4 or more ACEs

8th, 9th, 11th graders, 2019 MSS

E-cigarette use WITHOUT protective factor  E-cigarette use WITH protective factor

<table>
<thead>
<tr>
<th>Parents care</th>
<th>Teachers and school adults care</th>
<th>Positive school climate</th>
<th>Teamwork and leadership building activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>50.4%</td>
<td>49.0%</td>
<td>51.5%</td>
<td>49.7%</td>
</tr>
<tr>
<td>42.8%</td>
<td>36.3%</td>
<td>33.0%</td>
<td>42.4%</td>
</tr>
</tbody>
</table>

**How to read this graph:**
Of students with 4+ ACEs who feel their parents DON’T care about them, 50.4% have used an e-cigarette. However, of students who feel their parents DO care about them, this drops to 42.8%.

Protective factors have a similar effect on all types of substance use, and mental health problems. It’s important to remember that, although ACEs can have powerful and cumulative effects on the lives of children and adults, so do many protective factors, which can confer resilience and buffer the effects of ACEs. Strong personal and community relationships can lay the foundation for healthy populations.

State Epidemiological Outcomes Workgroup

Minnesota’s SEOW has been monitoring substance abuse trends since 2007. The Workgroup helps guide prevention planning at the state level, and provides training and technical assistance to communities. In 2008 the SEOW launched the Substance Use in Minnesota (SUMN) website to ensure quick and easy access to data for prevention professionals.

SUMN.org

SUMN is a one-stop-shop for data, tools, and prevention resources. Visitors can search county, regional, and state level data by topic, by location, and by demographic producing tables, charts, graphs, and maps. View and download data products, such as this fact sheet, and find tips on finding, analyzing, translating, using, and disseminating data.

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Contact Us
For questions or more information regarding the State Epidemiological Outcomes Workgroup or SUMN.org, please email: info@sumn.org

To contact the Regional Prevention Coordinator for your region, please visit: www.rpcmn.org