

**TABLE 4 SUPPLEMENTARY TABLE 1 Odds** (Comment by Author: This table has results for 2017 data, which have not been discussed in text. I think it should be moved to supplementary material as Supplementary 4.&nbsp;More detail in cover letter.&nbsp;); **Ratios for Problem Status in 3 Analyses Comparing Substance Use Contrast Groups on Psychosocial Variables, for Groupings Based On Ever Use and 30-Day Use: 2017 YRBS Data**

Psychosocial Risk-Protection Variable (Base Rate of Problem Status)	Substance Use Index and Type of Contrast					
	Contrasts for Ever-Use Groups			Contrasts for 30 d Use Groups		
	All Singles Versus All Duals	All Duals Versus Triple User	All No Marijuana Versus All Marijuana	All Singles Versus All Duals	All Duals Versus Triple User	All No Marijuana Versus All Marijuana
Fighting <sup>a</sup> (13%)	2.07 <sup>c</sup>	1.71 <sup>c</sup>	2.09 <sup>c</sup>	2.39 <sup>c</sup>	1.44 <sup>d</sup>	1.56 <sup>c</sup>
Weapon carrying (15%)	1.53 <sup>c</sup>	1.54 <sup>c</sup>	0.91	1.74 <sup>c</sup>	2.54 <sup>c</sup>	0.95
Weapon at school (4%)	1.96 <sup>e</sup>	1.76 <sup>c</sup>	1.15	1.72 <sup>d</sup>	2.82 <sup>c</sup>	1.05
Depression (32%)	1.32 <sup>c</sup>	1.46 <sup>c</sup>	1.38 <sup>c</sup>	1.19	1.72 <sup>c</sup>	1.27 <sup>e</sup>
Suicide ideation (18%)	1.52 <sup>c</sup>	1.43 <sup>c</sup>	1.53 <sup>c</sup>	1.27 <sup>f</sup>	1.68 <sup>c</sup>	1.54 <sup>c</sup>

## Supplemental Materials

**Note:** The table layout displayed in 'Edit' view is not how it will appear in the printed/pdf version. This html display is to enable content corrections to the table. To preview the printed/pdf presentation of the table, please view the 'PDF' tab.

**SUPPLEMENTAL TABLE 7 Prevalence Estimates (weighted *N* and %) for 2017 Substance Use Variables and Groupings** (Comment by Author: I deleted two words because prevalence estimates for substance use groupings are now in a separate table (as Supplementary Table 7).&nbsp;+)

<a href="#">AQ17</a>	<i>n</i>	%
Ever used e-cigarettes		
No	8171	58
Yes	5973	42
Missing	452	—
Used e-cigarettes past 30 d		
No	10 900	87
Yes	1659	13
Missing	1921	—
Ever smoked combustible cigarettes		
No	9851	71
Yes	4009	29
Missing	2853	—
Smoked combustible cigarettes past 30 d		
No	13 129	91
Yes	1269	9
Missing	358	—
Ever used marijuana		

AQ17	<i>n</i>	%
No	9310	64
Yes	5139	36
Missing	483	—
Used marijuana past 30 d		
No	11 632	80
Yes	2872	20
Missing	379	—

Analytic *n* does not always add to 14 765 because the weighting procedure can upweight or downweight cases. —, not applicable.

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**SUPPLEMENTAL TABLE 78** Prevalence Estimates (Weighted N and %) for Substance Use Groupings, 2017 YRBS Data

Group	Ever Use		30 Day Use	
	<i>n</i>	%	<i>n</i>	%
Nonuser	6235	47	9310	76
E-cigarette only	1201	9	394	3
Cigarette only	389	3	142	1
Marijuana only	667	5	975	8
E-cigarette and cigarette	637	5	228	2
E-cigarette and marijuana	1237	9	387	3
Cigarette and marijuana	354	3	202	2
E-cigarette, cigarette, and marijuana	2424	18	549	5
<i>N</i>	13 145	—	12 189	—
Missing	3286	—	2347	—

Analytic *n* does not always add to 14 765 because the weighting procedure can upweight or downweight cases. —, not applicable.

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**SUPPLEMENTAL TABLE 9 Adjusted Mean (SE) on Psychosocial Variables and Composite Risk Score for Ever-Usage Groups: 2017 YRBS Data, with Pairwise Comparisons and *P* for Omnibus F Test** [AQ18](#)

<a href="#">AQ19</a> Variable	Ever-Usage Group								<i>P</i> for F Test
	Nonuser (Analytic <i>N</i> = 5011), Adjusted M (SE)	E- cigarette Only (Analytic <i>N</i> = 894), Adjusted Mean (SE)	Cigarette Only (Analytic <i>N</i> = 296), Adjusted M (SE)	Marijuana Only (Analytic <i>N</i> = 650), Adjusted Mean (SE)	Dual E- cigarette and Cigarette (Analytic <i>N</i> = 448), Adjusted Mean (SE)	Dual E- cigarette and Marijuana (Analytic <i>N</i> = 1017), Adjusted Mean (SE)	Dual Cigarette and Marijuana (Analytic <i>N</i> = 326), Adjusted Mean (SE)	E- cigarette, Cigarette, and Marijuana (Analytic <i>N</i> = 17 331), Adjusted Mean (SE)	
Aggressive behavior									
12 mo fighting (1-8)	1.21 (.02)	1.31 (.03)	1.46a (.06)	1.53a (.04)	1.55a (.05)	1.66 (.03)	1.98b (.06)	1.98b (.03)	<.0001
30 d carry weapon (1-5)	1.21 (.01)	1.37a (.03)	1.49b (.06)	1.36a (.04)	1.70c (.05)	1.42ab (.03)	1.64c (.06)	1.73 (.02)	<.0001
30 d weapon school (1-5)	1.05a (.01)	1.04a (.02)	1.07ab (.03)	1.07ab (.02)	1.09ab (.02)	1.09ab (.02)	1.10abc (.03)	1.19c (.01)	<.0001
Psychiatric symptomatology									
12 mo depressed (1,2)	1.23 (.01)	1.29 (.01)	1.36a (.03)	1.37ab (.02)	1.37ab (.02)	1.38ab (.01)	1.42 (.03)	1.47 (.01)	<.0001
12 mo suicide ideation (1,2)	1.12a (.01)	1.12a (.01)	1.19b (.02)	1.19b (.01)	1.20b (.02)	1.22b (.01)	1.25 (.02)	1.28 (.01)	<.0001
Sexual risk behavior									
Ever had sex (1,2)	1.19 (.01)	1.38a (.01)	1.37a (.02)	1.53b (.02)	1.52b (.02)	1.62 (.01)	1.66 (.02)	1.73 (.01)	<.0001

AQ19 Variable	Ever-Usage Group								P for F Test
	Nonuser (Analytic N = 5011), Adjusted M (SE)	E-cigarette Only (Analytic N = 894), Adjusted Mean (SE)	Cigarette Only (Analytic N = 296), Adjusted M (SE)	Marijuana Only (Analytic N = 650), Adjusted Mean (SE)	Dual E-cigarette and Cigarette (Analytic N = 448), Adjusted Mean (SE)	Dual E-cigarette and Marijuana (Analytic N = 1017), Adjusted Mean (SE)	Dual Cigarette and Marijuana (Analytic N = 326), Adjusted Mean (SE)	E-cigarette, Cigarette, and Marijuana (Analytic N = 17331), Adjusted Mean (SE)	
Lifetime No. partners (1-7)	1.36 (.02)	1.74a (.04)	1.81a (.08)	2.21 (.06)	2.04 (.06)	2.52 (.04)	2.97 (.08)	3.20 (.03)	<.0001
Collateral substance use									
Lifetime alcohol use (1-7)	1.61 (.02)	2.63a (.04)	2.71a (.08)	2.84 (.05)	3.27 (.06)	3.42b (.04)	3.49b (.07)	4.51 (.03)	<.0001
30 d alcohol use (1-7)	1.12 (.01)	1.45a (.03)	1.37a (.05)	1.53 (.04)	1.73 (.05)	1.88b (.03)	1.89b (.05)	2.47 (.02)	<.0001
30 d binge drink (1-7)	1.04 (.01)	1.16a (.03)	1.16a (.05)	1.22a (.03)	1.37b (.04)	1.48b (.03)	1.46b (.05)	2.06 (.02)	<.0001
Illicit drug use									
Inhalant use (1-6)	1.03 (.01)	1.09a (.02)	1.18ab (.03)	1.08a (.02)	1.11a (.02)	1.12 (.02)	1.22ab (.03)	1.29 (.01)	<.0001
Prescription drug use (1-6)	1.07a (.01)	1.11a (.03)	1.22b (.05)	1.25b (.03)	1.25b (.04)	1.36 (.02)	1.51 (.04)	1.88 (.02)	<.0001
Protective Factors									
Grades (1F-5A)	4.29 (.01)	4.13a (.03)	4.02b (.05)	4.07ab (.03)	3.93bc (.04)	3.92c (.03)	3.77d (.05)	3.76d (.02)	<.0001
Wear seat belt in car (1-5)	4.56 (.01)	4.36a (.03)	4.33ab (.05)	4.33a (.03)	4.18 (.04)	4.27ab (.03)	4.05 (.05)	3.97 (.02)	<.0001
Composite risk score (0-14)	1.07 (.03)	1.84 (.06)	2.26 (.11)	2.48 (.07)	2.80 (.09)	3.20 (.06)	3.77 (.10)	4.84 (.05)	<.0001

Adjusted for age, sex, and race and ethnicity. Analytic *n* represents the approximate midpoint from range of cell sizes over all variables. In pairwise comparisons (across rows), cells with common subscript superscript do not differ significantly (at  $P < .05$ ). Composite risk scores are based on 14 binary (0,1) indices indicating high-risk status for each row variable in table.

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**SUPPLEMENTAL TABLE 10 Adjusted Mean (SE) on Psychosocial Variables and Composite Risk Scores for 30-Day Usage Groups: 2017 YRBS Data, With Pairwise Comparisons and P for Omnibus F Test**

Variable	30 d Usage Group Nonuser (7582)	E-cigarette Only (321)	Cigarette Only (120)	Marijuana Only (919)	Dual E-cigarette and Cigarette (162)	Dual E-cigarette and Marijuana (324)	Dual Cigarette and Marijuana (158)	E-cigarette, Cigarette, and Marijuana (404)	P for F Test
Aggressive behavior									
12 mo fighting (1-8)	1.28 (.01)	1.59 (.06)	1.88a (.10)	1.73a (.03)	2.20b (.08)	2.06ab (.06)	2.32b (.08)	2.65 (.05)	<.0001
30 d carry weapon (1-5)	1.26 (.01)	1.80a (.06)	2.06b (.10)	1.43 (.03)	2.24b (.08)	1.69a (.06)	1.79 (.08)	2.11b (.05)	<.0001
30 d weapon school (1-5)	1.05 (.01)	1.16a (.03)	1.23ab (.05)	1.11 (.02)	1.32b (.04)	1.18ac (.03)	1.23b (.04)	1.40 (.02)	<.0001
Psychiatric symptomatology									
12 mo depressed (1,2)	1.27 (.01)	1.35a (.02)	1.46b (.04)	1.38a (.01)	1.39ab (.03)	1.41ab (.02)	1.53b (.03)	1.54b (.02)	<.0001
12 mo suicide ideation (1,2)	1.14a (.01)	1.16a (.02)	1.32b (.03)	1.22c (.01)	1.27bc (.03)	1.22c (.02)	1.36bd (.03)	1.39d (.02)	<.0001
Sexual risk behavior									
Ever had sex (1,2)	1.26 (.01)	1.59a (.02)	1.64ab (.04)	1.64b (.01)	1.74c (.03)	1.71c (.02)	1.79cd (.03)	1.81d (.02)	<.0001
Lifetime No. partners (1-7)	1.54 (.01)	2.39 (.07)	2.98a (.12)	2.68 (.04)	2.96a (.10)	3.08a (.07)	3.60 (.10)	3.86 (.06)	<.0001

Variable	30 d Usage Group Nonuser (7582)	E-cigarette Only (321)	Cigarette Only (120)	Marijuana Only (919)	Dual E-cigarette and Cigarette (162)	Dual E-cigarette and Marijuana (324)	Dual Cigarette and Marijuana (158)	E-cigarette, Cigarette, and Marijuana (404)	P for F Test
Collateral alcohol use									
Lifetime alcohol use (1–7)	1.98 (.02)	3.75 (.07)	3.99 (.13)	3.46 (.05)	4.52a (.10)	4.32a (.07)	4.74 (.11)	5.26 (.07)	<.0001
30 d alcohol use (1–7)	1.19 (.01)	2.06a (.04)	2.07a (.07)	1.85 (.03)	2.69b (.06)	2.65b (.04)	2.63b (.06)	3.49 (.04)	<.0001
30 d binge (1–7)	1.07 (.01)	1.54 (.04)	1.78 (.07)	1.45 (.02)	2.29a (.06)	2.21a (.04)	2.24a (.06)	3.30 (.04)	<.0001
Illicit drug use									
Lifetime inhalant use (1–6)	1.07a (.01)	1.15b (.03)	1.15b (.05)	1.10b (.02)	1.13ab (.04)	1.20b (.03)	1.32 (.04)	1.62 (.03)	<.0001
Lifetime prescription drug use (1–6)	1.12 (.01)	1.25 (.04)	1.47a (.07)	1.43a (.02)	1.74b (.06)	1.64b (.04)	2.19 (.06)	2.59 (.04)	<.0001
Protective factors									
Grades (1F–5A)	4.22 (.01)	3.91a (.05)	3.77a (.08)	3.92a (.03)	3.82ab (.07)	3.74b (.05)	3.52 (.07)	3.64 (.04)	<.0001
Wear seat belt (1–5)	4.48 (.01)	4.11a (.05)	3.89ab (.08)	4.20 (.03)	3.84bc (.07)	4.03a (.05)	3.72c (.07)	3.62 (.05)	<.0001
Composite risk score (0–14)	1.45 (.02)	3.43a (.10)	4.48 (.17)	3.42a (.06)	5.00b (.14)	4.92b (.10)	5.78 (.14)	6.92 (.09)	<.0001

Adjusted for age, sex, and race and ethnicity. Analytic *n* are the approximate midpoint from the range of cell sizes over all variables. For pairwise comparisons (across row), cells with common superscripts do not differ significantly (at  $P < .05$ ). Composite risk score based on 14 binary (0,1) indices indicating high-risk status for each row variable in table. [Comment by Author: Theoddsratiosforproblemstatusfor2017YRBSdata\(currentproofTable4\)shouldcomeafterthistable.](#)