

**TABLE 10**  
**Trends in Harmfulness of Drugs as Perceived by 10th Graders**

How much do you think people risk harming themselves (physically or in other ways), if they . . .	Percentage saying great risk <sup>a</sup>															
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Use marijuana once or twice <sup>b</sup>	30.0	31.9	29.7	24.4	21.5	20.0	18.8	19.6	19.2	18.5	17.9	19.9	21.1	22.0	22.3	22.2
Use marijuana occasionally <sup>b</sup>	48.6	48.9	46.1	38.9	35.4	32.8	31.9	32.5	33.5	32.4	31.2	32.0	34.9	36.2	36.6	35.6
Use marijuana regularly <sup>b</sup>	82.1	81.1	78.5	71.3	67.9	65.9	65.9	65.8	65.9	64.7	62.8	60.8	63.9	65.6	65.5	64.9
Try synthetic marijuana once or twice <sup>c</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Take synthetic marijuana occasionally <sup>c</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Try inhalants once or twice <sup>d</sup>	37.8	38.7	40.9	42.7	41.6	47.2	47.5	45.8	48.2	46.6	49.9	48.7	47.7	46.7	45.7	43.9
Take inhalants regularly <sup>d</sup>	69.8	67.9	69.6	71.5	71.8	75.8	74.5	73.3	76.3	75.0	76.4	73.4	72.2	73.0	71.2	70.2
Take LSD once or twice <sup>e</sup>	—	—	48.7	46.5	44.7	45.1	44.5	43.5	45.0	43.0	41.3	40.1	40.8	40.6	40.3	38.8
Take LSD regularly <sup>e</sup>	—	—	78.9	75.9	75.5	75.3	73.8	72.3	73.9	72.0	68.8	64.9	63.0	63.1	60.8	60.7
Try ecstasy (MDMA, Molly) once or twice <sup>f</sup>	—	—	—	—	—	—	—	—	—	—	39.4	43.5	49.7	52.0	51.4	48.4
Take ecstasy (MDMA, Molly) occasionally <sup>f</sup>	—	—	—	—	—	—	—	—	—	—	64.8	67.3	71.7	74.6	72.8	71.3
Try salvia once or twice <sup>c</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Take salvia occasionally <sup>c</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Try cocaine once or twice <sup>b</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Take cocaine occasionally <sup>b</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Try crack once or twice <sup>d</sup>	70.4	69.6	66.6	64.7	60.9	60.9	59.2	58.0	57.8	56.1	57.1	57.4	57.6	56.7	57.0	56.6
Take crack occasionally <sup>d</sup>	87.4	86.4	84.4	83.1	81.2	80.3	78.7	77.5	79.1	76.9	77.3	75.7	76.4	76.7	76.9	76.2
Try cocaine powder once or twice <sup>d</sup>	59.1	59.2	57.5	56.4	53.5	53.6	52.2	50.9	51.6	48.8	50.6	51.3	51.8	50.7	51.3	50.2
Take cocaine powder occasionally <sup>d</sup>	82.2	80.1	79.1	77.8	75.6	75.0	73.9	71.8	73.6	70.9	72.3	71.0	71.4	72.2	72.4	71.3
Try heroin once or twice without using a needle <sup>e</sup>	—	—	—	—	70.7	72.1	73.1	71.7	73.7	71.7	72.0	72.2	70.6	72.0	72.4	70.0
Take heroin occasionally without using a needle <sup>e</sup>	—	—	—	—	85.1	85.8	86.5	84.9	86.5	85.2	85.4	83.4	83.5	85.4	85.2	83.6
Try OxyContin once or twice <sup>c</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Take OxyContin occasionally <sup>c</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Try Vicodin once or twice <sup>c</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Take Vicodin occasionally <sup>c</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Try Adderall once or twice <sup>c</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Take Adderall occasionally <sup>c</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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**TABLE 10 (cont.)**  
**Trends in Harmfulness of Drugs as Perceived by 10th Graders**

How much do you think people risk harming themselves (physically or in other ways), if they . . .	Percentage saying great risk <sup>a</sup>															
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Try bath salts (synthetic stimulants) once or twice <sup>c</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Take bath salts (synthetic stimulants) occasionally <sup>c</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Try cough/cold medicine once or twice <sup>c</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Take cough/cold medicine occasionally <sup>c</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Try one or two drinks of an alcoholic beverage (beer, wine, liquor) <sup>b</sup>	9.0	10.1	10.9	9.4	9.3	8.9	9.0	10.1	10.5	9.6	9.8	11.5	11.5	10.8	11.5	11.1
Take one or two drinks nearly every day <sup>b</sup>	36.1	36.8	35.9	32.5	31.7	31.2	31.8	31.9	32.9	32.3	31.5	31.0	30.9	31.3	32.6	31.7
Have five or more drinks once or twice each weekend <sup>u</sup>	54.7	55.9	54.9	52.9	52.0	50.9	51.8	52.5	51.9	51.0	50.7	51.7	51.6	51.7	53.3	52.4
Smoke one to five cigarettes per day <sup>c</sup>	—	—	—	—	—	—	—	—	28.4	30.2	32.4	35.1	38.1	39.7	41.0	41.3
Smoke one or more packs of cigarettes per day <sup>g</sup>	60.3	59.3	60.7	59.0	57.0	57.9	59.9	61.9	62.7	65.9	64.7	64.3	65.7	68.4	68.1	67.7
Use electronic cigarettes (e-cigarettes) regularly <sup>h</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Vape marijuana occasionally <sup>m</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Vape marijuana regularly <sup>m</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Vape an e-liquid with nicotine occasionally <sup>c,j</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Vape an e-liquid with nicotine regularly <sup>c,j</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Use JUUL occasionally <sup>k</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Use JUUL regularly <sup>k</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Smoke little cigars or cigarillos regularly <sup>c</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Use smokeless tobacco regularly	40.3	39.6	44.2	42.2	38.2	41.0	42.2	42.8	44.2	46.7	46.2	46.9	48.0	47.8	46.1	45.9
Take dissolvable tobacco regularly <sup>c</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Take snus regularly <sup>c</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Take steroids <sup>i</sup>	67.1	72.7	73.4	72.5	—	—	—	—	—	—	—	—	—	—	—	—
<i>Approximate weighted N =</i>																
	14,700	14,800	15,300	15,900	17,000	15,700	15,600	15,000	13,600	14,300	14,000	14,300	15,800	16,400	16,200	16,200

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**TABLE 10 (cont.)**  
**Trends in Harmfulness of Drugs as Perceived by 10th Graders**

<i>How much do you think people risk harming themselves (physically or in other ways), if they . . .</i>	Percentage saying great risk <sup>a</sup>														
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 <sup>l</sup>	2020	2021 <sup>n</sup>
Use marijuana once or twice <sup>b</sup>	22.2	23.1	20.5	19.9	19.3	17.2	15.7	15.2	15.8	16.4	14.8	13.9	14.1	§	16.9*
Use marijuana occasionally <sup>b</sup>	36.0	37.0	32.9	30.9	30.1	26.8	25.1	23.9	24.7	24.4	21.9	21.4	20.6	§	22.6*
Use marijuana regularly <sup>b</sup>	64.5	64.8	59.5	57.2	55.2	50.9	46.5	45.4	43.2	44.0	40.6	38.1	39.5	§	41.0*
Try synthetic marijuana once or twice <sup>c</sup>	—	—	—	—	—	24.6	24.1	25.0	26.3	26.8	25.1	24.3	22.4	§	24.7*
Take synthetic marijuana occasionally <sup>c</sup>	—	—	—	—	—	34.9	32.8	30.7	31.7	31.8	29.2	28.8	27.2	§	28.3*
Try inhalants once or twice <sup>d</sup>	43.0	41.2	42.0	42.5	42.4	42.4	43.0	43.1	43.1	40.7	37.9	38.6	39.7	§	30.4*
Take inhalants regularly <sup>d</sup>	68.6	66.8	66.8	67.1	66.2	66.1	65.9	64.7	63.1	59.7	57.7	57.6	57.5	§	52.3*
Take LSD once or twice <sup>e</sup>	35.4	34.6	34.9	33.9	34.2	34.7	34.7	34.5	36.4	34.4	31.6	33.8	32.9	§	27.6*
Take LSD regularly <sup>e</sup>	56.8	55.7	56.7	56.1	54.9	56.4	55.9	54.8	58.3	55.2	53.0	54.1	52.4	§	55.2*
Try ecstasy (MDMA, Molly) once or twice <sup>f</sup>	45.3	43.2	38.9	36.3	37.2	36.2	36.0‡	53.2	54.8	54.2	55.4	54.5	53.0	§	53.0*
Take ecstasy (MDMA, Molly) occasionally <sup>f</sup>	68.2	66.4	62.1	59.2	60.8	59.8	58.6‡	69.0	70.1	69.3	68.6	67.6	66.1	§	66.5*
Try salvia once or twice <sup>c</sup>	—	—	—	—	—	12.2	10.7	—	—	—	—	—	—	—	—
Take salvia occasionally <sup>c</sup>	—	—	—	—	—	20.3	17.1	—	—	—	—	—	—	—	—
Try cocaine once or twice <sup>b</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	§	55.3*
Take cocaine occasionally <sup>b</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	§	74.0*
Try crack once or twice <sup>d</sup>	56.4	56.5	57.7	58.1	59.5	59.0	60.2	61.4	62.5	61.3	60.7	60.4	62.5	—	—
Take crack occasionally <sup>d</sup>	76.0	76.5	75.9	76.2	76.5	76.7	77.8	76.4	77.5	75.2	75.1	75.0	76.0	—	—
Try cocaine powder once or twice <sup>d</sup>	49.5	49.8	50.8	52.9	53.0	53.4	54.5	54.1	54.8	54.6	52.5	52.6	53.7	—	—
Take cocaine powder occasionally <sup>d</sup>	70.9	71.1	71.0	72.2	72.0	72.6	72.8	71.7	72.6	70.9	70.4	70.2	71.0	—	—
Try heroin once or twice without using a needle <sup>e</sup>	70.5	70.8	72.2	73.0	72.9	72.6	73.2	72.6	74.1	73.3	72.2	71.4	73.6	§	73.2*
Take heroin occasionally without using a needle <sup>e</sup>	84.2	83.1	83.3	84.8	83.4	84.4	84.0	82.5	83.3	82.2	81.4	81.0	82.6	§	81.8*
Try OxyContin once or twice <sup>c</sup>	—	—	—	—	—	30.9	29.4	29.7	29.9	28.7	27.8	29.6	25.0	§	27.6*
Take OxyContin occasionally <sup>c</sup>	—	—	—	—	—	48.3	44.7	44.4	43.7	41.4	41.3	43.9	41.5	§	41.3*
Try Vicodin once or twice <sup>c</sup>	—	—	—	—	—	23.2	21.0	22.5	24.1	21.8	22.1	23.2	19.7	§	26.1*
Take Vicodin occasionally <sup>c</sup>	—	—	—	—	—	40.3	36.0	36.4	35.4	32.6	32.0	34.8	30.5	§	32.6*
Try Adderall once or twice <sup>c</sup>	—	—	—	—	—	19.7	17.6	22.2	22.9	22.5	21.6	23.2	22.3	§	25.9*
Take Adderall occasionally <sup>c</sup>	—	—	—	—	—	34.3	30.5	37.0	37.0	35.8	36.4	39.8	39.1	§	38.1*

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**TABLE 10 (cont.)**  
**Trends in Harmfulness of Drugs as Perceived by 10th Graders**

<i>How much do you think people risk harming themselves (physically or in other ways), if they . . .</i>	Percentage saying great risk <sup>a</sup>														
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 <sup>l</sup>	2020	2021 <sup>n</sup>
Try bath salts (synthetic stimulants) once or twice <sup>c</sup>	—	—	—	—	—	32.3	50.1	49.6	49.1	42.7	42.5	41.1	—	—	—
Take bath salts (synthetic stimulants) occasionally <sup>c</sup>	—	—	—	—	—	44.9	61.8	61.1	60.4	53.0	51.5	51.4	—	—	—
Try cough/cold medicine once or twice <sup>c</sup>	—	—	—	—	—	23.6	21.6	22.9	24.0	24.0	21.8	22.1	22.3	§	27.9*
Take cough/cold medicine occasionally <sup>c</sup>	—	—	—	—	—	40.4	37.3	38.3	38.2	37.6	36.4	37.2	37.9	§	37.0*
Try one or two drinks of an alcoholic beverage (beer, wine, liquor) <sup>b</sup>	11.6	12.6	11.9	11.9	12.3	11.3	11.3	11.6	12.4	13.3	12.5	13.0	13.6	§	13.2*
Take one or two drinks nearly every day <sup>b</sup>	33.3	35.0	33.8	33.1	32.9	31.8	30.6	31.3	31.2	32.2	30.9	30.3	31.0	§	34.7*
Have five or more drinks once or twice each weekend <sup>b</sup>	54.1	56.6	54.2	54.6	55.5	52.8	52.3	54.0	54.5	54.5	52.0	51.8	52.6	§	54.2*
Smoke one to five cigarettes per day <sup>c</sup>	41.7	43.5	42.8	41.4	44.8	49.1	47.7	52.0	52.9	53.0	50.0	49.9	50.0	§	45.8*
Smoke one or more packs of cigarettes per day <sup>g</sup>	68.2	69.1	67.3	67.2	69.8	71.6	70.8	72.0	72.9	71.5	69.8	69.6	73.2	§	72.7*
Use electronic cigarettes (e-cigarettes) regularly <sup>h</sup>	—	—	—	—	—	—	—	14.1	17.0	19.1	19.4	22.8	—	—	—
Vape marijuana occasionally <sup>m</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	§	28.7*
Vape marijuana regularly <sup>m</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	§	42.9*
Vape an e-liquid with nicotine occasionally <sup>c,j</sup>	—	—	—	—	—	—	—	—	—	—	17.0	17.9	22.7	§	22.8*
Vape an e-liquid with nicotine regularly <sup>c,j</sup>	—	—	—	—	—	—	—	—	—	—	30.0	31.3	40.7	§	52.6*
Use JUUL occasionally <sup>k</sup>	—	—	—	—	—	—	—	—	—	—	—	—	22.8	§	27.4*
Use JUUL regularly <sup>k</sup>	—	—	—	—	—	—	—	—	—	—	—	—	35.6	§	49.2*
Smoke little cigars or cigarillos regularly <sup>c</sup>	—	—	—	—	—	—	—	31.0	34.9	35.3	34.0	34.9	39.1	§	45.6*
Use smokeless tobacco regularly	46.7	48.0	44.7	43.7	45.7	42.9	40.0	39.9	42.5	43.0	40.7	41.0	44.5	§	43.8*
Take dissolvable tobacco regularly <sup>c</sup>	—	—	—	—	—	33.3	31.3	32.0	35.6	34.2	32.7	33.2	32.9	§	38.6*
Take snus regularly <sup>c</sup>	—	—	—	—	—	41.0	38.9	38.8	41.8	39.9	38.1	39.8	39.0	§	38.8*
Take steroids <sup>i</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Approximate weighted N =</i>	16,100	15,100	15,900	15,200	14,900	15,000	12,900	13,000	15,600	14,700	13,500	14,300	7,000	§	11,000

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**TABLE 10 (cont.)**  
**Trends in Harmfulness of Drugs as Perceived by 10th Graders**

Source. The Monitoring the Future study, the University of Michigan.

Notes. Level of significance of difference between the two most recent classes:  $s = .05$ ,  $ss = .01$ ,  $sss = .001$ . '—' indicates data not available. Any apparent inconsistency between the change estimate and the prevalence estimates for the two most recent years is due to rounding. '‡' indicates that the question changed the following year.

§Estimates not presented due to insufficient data this year.

\*Results may not be comparable to previous years. In 2021 MTF conducted survey administrations via the internet for the first time, and responses, especially on attitudes, can be sensitive to mode effects.

<sup>a</sup>Answer alternatives were: (1) No risk, (2) Slight risk, (3) Moderate risk, (4) Great risk, and (5) Can't say, drug unfamiliar.

<sup>b</sup>Beginning in 2012 data based on two thirds of  $N$  indicated.

<sup>c</sup>Data based on one third of  $N$  indicated.

<sup>d</sup>Beginning in 1997, data based on two thirds of  $N$  indicated due to changes in questionnaire forms.

<sup>e</sup>Data based on one of two forms in 1993–1996;  $N$  is one half of  $N$  indicated. Beginning in 1997, data based on one third of  $N$  indicated due to changes in questionnaire forms.

<sup>f</sup>Beginning in 2014 data are based on the revised question which included "Molly,"  $N$  is one third of  $N$  indicated in 2014 and two thirds of  $N$  indicated in 2015. 2014 and 2015 data are not comparable to earlier years due to the revision of the question text.

<sup>g</sup>Beginning in 1999, data based on two thirds of  $N$  indicated due to changes in questionnaire forms.

<sup>h</sup>E-cigarette data based on two thirds of  $N$  indicated. Little cigars or cigarillos data based on one third  $N$  indicated.

<sup>i</sup>Data based on two forms in 1991 and 1992. Data based on one of two forms in 1993 and 1994;  $N$  is one half of  $N$  indicated.

<sup>j</sup>Percentages for all years reported here include respondents who replied "can't say, drug unfamiliar" in the denominator. The percentage for 2017 published in late 2017 and early 2018 did not include these respondents in the denominator.

<sup>k</sup>Data based on two thirds of  $N$  indicated.

<sup>l</sup>The  $N$  for 2019 is approximately one-half of that for the full sample, because it is based on the half-sample who received the traditional paper and pencil questionnaire form.

<sup>m</sup>Data based on one half of  $N$  indicated.

<sup>n</sup>Sample is decreased by as much as 50% for the following drugs due to survey question experiments: alcohol, inhalants, heroin, LSD, OxyContin, Vicodin, and cough/cold medicine.