YTS AAPOR Transparency Initiative Immediate Disclosure Items

1. Who sponsored the research study.

The Nebraska SHARP Surveillance System is administered by the Nebraska Department of Health and Human Services and the Nebraska Department of Education through a contract with the Bureau of Sociological Research at the University of Nebraska-Lincoln

2. Who conducted the research study.

The Nebraska SHARP Surveillance System is administered by the Nebraska Department of Health and Human Services and the Nebraska Department of Education through a contract with the Bureau of Sociological Research at the University of Nebraska-Lincoln.

3. If who conducted the study is different from the sponsor, the original sources of funding will also be disclosed.

The 2019 YTS is funded by the Nebraska Department of Health and Human Services.

4. The exact wording and presentation of questions and response options whose results are reported. This includes preceding interviewer or respondent instructions and any preceding questions that might reasonably be expected to influence responses to the reported results.

http://bosr.unl.edu/yts-questionnaires

5. A definition of the population under study and its geographic location.

The YTS targets public high school students in grades 9-12 in Nebraska.

6. Dates of data collection.

The 2019 YTS was administered starting in August 2018 and concluded during March 2019.

7. A description of the sampling frame(s) and its coverage of the target population, including mention of any segment of the target population that is not covered by the design. This may include, for example, exclusion of Alaska and Hawaii in U.S. surveys; exclusion of specific provinces or rural areas in international surveys; and exclusion of non-panel members in panel surveys. If possible the estimated size of non-covered segments will be provided. If a size estimate cannot be provided, this will be explained. If no frame or list was utilized, this will be indicated.

The YTS sampling frame consists of the Nebraska Department of Education Membership Information by County data file, which provides a list of all schools in Nebraska with the school type (public, private, alternative, etc.), school and school district codes, corresponding address, county, and enrollment by grade level. This list is then reduced to only include public schools with students in 9, 10, 11, and/or 12th grade.

8. The name of the sample supplier, if the sampling frame and/or the sample itself was provided by a third party.

The data file used to create the sampling frame is obtained through the Nebraska Department of Education website.

9. The methods used to recruit the panel or participants, if the sample was drawn from a prerecruited panel or pool of respondents.

The CDC drew the 2019 YTS sample for Nebraska using a two-stage cluster sampling design. In the first stage, a random sample of public high schools was selected with probability proportionate to school enrollment. Eligible schools were then recruited to participate. They were first informed of this eligibility via mailed letter at the beginning of 2018. This letter informed them of the opportunity to participate in the YTS in the upcoming fall. In March, active recruitment both through mailed letter, phone, and/or e-

mail by BOSR began in an effort to get as many schools to participate as possible. In the second stage, within each of the participating schools, a random sample of classrooms was selected and all students in those classes were targeted for participation.

10. A description of the sample design, giving a clear indication of the method by which the respondents were selected, recruited, intercepted or otherwise contacted or encountered, along with any eligibility requirements and/or oversampling. If quotas were used, the variables defining the quotas will be reported. If a within-household selection procedure was used, this will be described. The description of the sampling frame and sample design will include sufficient detail to determine whether the respondents were selected using probability or non-probability methods.

The CDC drew the 2019 YTS sample for Nebraska using a two-stage cluster sampling design. In the first stage, a random sample of public high schools was selected with probability proportionate to school enrollment. Eligible schools were then recruited to participate. They were first informed of this eligibility via mailed letter at the beginning of 20168. This letter informed them of the opportunity to participate in the YTS in the upcoming fall. In March, active recruitment both through mailed letter, phone, and/or email by BOSR began in an effort to get as many schools to participate as possible. In the second stage, within each of the participating schools, a random sample of classrooms was selected and all students in those classes were targeted for participation.

11. Method(s) and mode(s) used to administer the survey (e.g., CATI, CAPI, ACASI, IVR, mail survey, web survey) and the language(s) offered.

The YTS is a self-administered survey offered in pencil/paper and web format, and administered within the classroom. The survey was only offered in English and Spanish.

12. Sample sizes (by sampling frame if more than one was used) and a discussion of the precision of the findings. For probability samples, the estimates of sampling error will be reported, and the discussion will state whether or not the reported margins of sampling error or statistical analyses have been adjusted for the design effect due to weighting, clustering, or other factors. Disclosure requirements for non-probability samples are different because the precision of estimates from such samples is a model-based measure (rather than the average deviation from the population value over all possible samples). Reports of non-probability samples will only provide measures of precision if they are accompanied by a detailed description of how the underlying model was specified, its assumptions validated and the measure(s) calculated. To avoid confusion, it is best to avoid using the term "margin of error" or "margin of sampling error" in conjunction with non-probability samples.

The design effect due to weighting adjustments is 1.63¹, which represents the loss in statistical efficiency that results from unequal weights. Because the sample was drawn using probability proportionate to size, no sample weighting was necessary resulting in no design effect.

Table 1 presents margins of sampling error for some of the most likely sample sizes not taking the design effect from the weighting into account. Exact margins of error for alternative specifications of sample size and reported percentages can be easily computed by using the following formula for the 95% confidence level: Margin of error = 1.96 \* square root (p(1-p)/n)

p = the expected proportion selecting the answer

Table 1. Approximate Margins of Error of Percentages by Selected Sample Size NOT Accounting for Design Effect

	Full	75%	50%	33.3%	25%	10%
	Sample*	Sample	Sample	Sample	Sample	Sample
Reported Percentage	n=1846	n=1384	n=923	n=615	n=461	n=184
50	2.28%	6 2.63%	6 3.23%	3.95%	4.56%	7.22%
40 or 60	2.23%	6 2.58%	3.16%	3.87%	6 4.47%	7.08%
30 or 70	2.09%	6 2.41%	6 2.96%	3.62%	6 4.18%	6.62%
20 or 80	1.82%	6 2.11%	6 2.58%	3.16%	3.65%	5.78%
10 or 90	1.37%	6 1.58%	6 1.94%	2.37%	6 2.74%	4.33%
5 or 95	0.99%	6 1.15%	6 1.41%	5 1.72%	6 1.99%	3.15%

<sup>\* 95%</sup> confidence interval states that in 95 out of 100 samples drawn using the same sample size and design, the interval will contain the population value

When accounting for design effects due to weighting, the adjusted sampling error will be increased as is shown when comparing Table 1 to Table 2 where the sampling design effect is incorporated:

Margin of error = square root (deff) \* 1.96 \* square root (p(1-p)/n) deff = design effects

p = the expected proportion selecting the answern = number of responses

Table 2. Approximate Margins *of* Error of Percentages by Selected Sample Size Accounting for the Design Effect of Weighting

	Full	75%	50%	33.3%	25%	10%
	Sample*	Sample	Sample	Sample	Sample	Sample
Reported Percentage	n=1846	n=1384	n=923	n=615	n=461	n=184
50	2.91%	6 3.36%	6 4.12%	5.05%	6 5.83%	9.23%
40 or 60	2.85%	6 3.30%	6 4.04%	4.94%	6 5.71%	9.04%
30 or 70	2.67%	6 3.08%	6 3.78%	4.63%	6 5.34%	8.46%
20 or 80	2.33%	6 2.69%	6 3.30%	4.04%	4.66%	6 7.38%
10 or 90	1.75%	6 2.02%	6 2.47%	3.03%	6 3.50%	5.54%
5 or 95	1.27%	6 1.47%	6 1.80%	2.20%	6 2.54%	4.02%

<sup>\* 95%</sup> confidence interval states that in 95 out of 100 samples drawn using the same sample size and design, the interval will contain the population value

 $<sup>^{1}\</sup>text{The formula used is: } 1 + cv^{2}(w) = \quad \frac{\binom{n(\sum_{1}^{n}w^{2}_{1})}{i_{2}}}{(\sum_{1}^{n}w_{i})}$ 

13. A description of how the weights were calculated, including the variables used and the sources of weighting parameters, if weighted estimates are reported.

The data were weighted in two ways to account for nonresponse and population characteristics. Sample weights were not needed given that the sample was drawn using the probability proportionate to size method. First, data were weighted to account for school nonresponse. Schools were grouped into three categories based on their enrollment size. A weight was then calculated for each category. Next, the data were weighted to account for student nonresponse by calculating weights for each classroom. Classrooms with less than 10 completes were merged with other classrooms with the same dominate grade. Lastly, post stratification weights were applied based on gender, race, and grade in school in order for the data to more closely resemble the population. The final weight in the dataset is called Pwate.

14. If the results reported are based on multiple samples or multiple modes, the preceding items will be disclosed for each.

Not applicable to this project.

15. Contact for obtaining more information about the study.

Any questions regarding the 2019 YTS administration can be directed to the Bureau of Sociological Research at the University of Nebraska-Lincoln by calling (402) 472-3672 or by sending an e-mail to bosr@unl.edu.