

Validation of the High School eSHQ: Summary of Results & Recommendations for Improvement

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Introduction

The purpose of the eSHQ validation project was to validate the electronic version of the student health questionnaire developed as part of the Colorado/New Mexico CHIPRA Quality Improvement Demonstration Project. The Student Health Questionnaire is a risk screen developed and used by the New Mexico Office of School and Adolescent Health. The CHIPRA team modified the Student Health Questionnaire to include items from the CRAFFT and an imbedded PHQ-2 screen. This version was used to create an electronic screening tool administered on an iPad at participating CHIPRA sites in Colorado and New Mexico. A provider feature was also developed as part of the electronic application, allowing providers to review the student's eSHQ responses and comment on flagged risks.

Description of the Tool

The eSHQ includes 6 risk domains and a total of 39 risk items. The risk domains are:

- Home/School Problems,
- Health Behaviors,
- Safety & Injuries,
- Feelings & Well-Being,
- Sexual Activity & Relationships, and
- Substance Use.

Most of the items are "yes/no" questions and two of the domains include branching logic so that students only answer all questions if they answer "yes" to the initial question. A copy of the eSHQ instrument is included in the Appendix.

While the risks are grouped into risk domains, each is considered a separate risk and is flagged as such. For example, the health behaviors domain includes 5 items covering exercise, screen time, diet, sleep, and preventive dental care. Any one of these can be flagged as a risk depending on how the student responds.

Methodology

To assess the validity of the instrument, we asked providers at selected CHIPRA SBHCs to review the eSHQ responses with their patients and provide an assessment of risk for each item. For each risk item, providers indicated if they thought there was a risk and were able to provide comments to explain their determination. Providers were given \$10 for each completed review. QI coaches provided instructions on using the provider review function of the eSHQ and oversaw the collection of data in each state. Providers at seven school-based health centers participated and submitted a total of 245 reviews. Data was collected by Apex Education and data collection took place between December 2013 and March 2014.

Analysis

The eSHQ is designed to "flag" risks based on student response. For example, if a student answered "no" that they do not always wear a seatbelt when riding in a car, truck, or van, this item would be flagged for the provider as a "risk." We reviewed the student and provider responses to see how often they were in agreement (the eSHQ flagged a risk and the provider agreed, after discussing with the student, that this was a risk), and when and how often they were not in agreement.

To assess agreement, we looked at the percentage of cases in which students and providers were and were not in agreement. We looked at cases in which the student's response indicated a risk but the provider did not see a risk and cases in which the student's response did not indicate a risk but the provider believed there to be a risk. Further, when

providers disagreed with the student, we analyzed their comments (when comments were provided) to determine why the provider did not think there was a risk. These were coded into four broad categories:

- **In the past/no longer a risk:** This code was used when the provider's comments indicated that the risk was something in the past and not currently an issue. For example, when the student said that they had thought about suicide in the past but currently had no thoughts of suicide, this would be coded as "in the past."
- **Already being addressed:** This code was used when the provider's comments indicated that the risk was already being addressed, either by another provider, by medication, or tutoring or some other intervention. Examples include failing grades being addressed by working with the teacher or by depression being treated with counseling or medication.
- **Not a risk/misunderstanding of item:** This code was used mainly when the student told the provider that they had answered something erroneously but also when the risk was flagged because the student's response was based on misunderstanding of the item. For example, some responses for physical activity indicated that the student was not getting enough exercise, but when the provider probed they found that the student was engaged in something that would count as physical activity (like organized sports at school).
- **Other:** The other category was the most used and covered comments from providers that did not indicate that the risk had been addressed or wasn't a risk but offered some other explanation or description of the risk. For example, some students indicated using drugs to "relax," which flagged a risk, but the providers said it was not a risk. However, in their comments they wrote things like "use to relax," which only describes the risk and does not explain why it's not a risk.

To further assess concordance, we calculated Kappa scores for each item. Kappa is a measure of agreement between paired responses and is used because it takes into account agreement occurring by chance. Kappa scores should be higher than 0.50, but for research purposes the standard is 0.70 and for clinical purposes, 0.90.

As an additional measure of reliability and validity, we also calculated Cronbach's alphas for the categories based on the assumption that items within a category should be similar if they are measuring what they are intended to measure. Further, we looked at correlations between categories based on expected relationships between risk categories from prior research (for example, drug use and depression are often correlated).

The results for each of these measured are described for each risk category in the next section. We end with a summary and set of recommendations based on our findings for future improvement of the eSHQ.

Findings

Population

Table 1 shows the respondent characteristics, which are typical of school-based health center users at the participating CHIPRA sites. Respondents averaged 16.9 years of age, with about 60% in the 9th or 10th grades and about 40% in the 11th or 12th grades. Over half were female and nearly three-quarters identified as “Hispanic or Latino.”

Table 1: Respondent Characteristics, High School eSHQ, 2013-14, N=245

		Mean/%
Gender		
	% Female	63.5%
Age		
	Average Age (yrs)	16.9 (s.d.=1.2)
Grade		
	% 9th grade	29.2%
	% 10th grade	29.2%
	% 11th grade	20.0%
	% 12th grade	21.7%
Race/Ethnicity		
	% Hispanic	74.7%
	% White, non-Hispanic	12.7%
	% Black, non-Hispanic	2.0%
	% Other*	10.6%
Sexual Orientation		
	% Heterosexual	84.7%
	% Gay or Lesbian	3.4%
	% Bisexual	8.9%
	% Not sure	3.0%

Assessment of Risks

Table 2 below shows the percentage of respondents who had at least one risk in a given risk category and the total number of risks. Almost all (98.0%) of students who completed the eSHQ had at least one risk flagged by the eSHQ (note that this does not mean that the provider agreed that they had a risk). The percentage of student with at least one risk varied by category, with under half (45.7%) having at least one risk in the substance use category and 90.2% having at least one risk in the health behaviors category. While the overall percentage of students with at least one risk is high, the distribution makes sense – some risks are more “severe” than others (i.e., it’s not surprising that most students would be flagged as at risk for not exercising or eating right but most should not be at risk for a substance use problem).

The overall high percentage of students with at least one risk indicates that the instrument is highly sensitive. A screening tool is intended to be sensitive in that it should catch a lot of things that may or may not turn out to be problems upon further assessment. However, this level of sensitivity might be problematic if it leads to “alarm fatigue” among providers reviewing the eSHQ. This is discussed further later in the report with the analysis of provider comments.

Table 2: Percent of Respondents with Risks by Category and Overall, High school eSHQ, 2013-14, N=245

	Mean/%
<i>By Risk Category</i>	
Home/School Risk	54.3%
Health Behaviors Risk	90.2%
Safety & Injuries Risk	65.7%
Feelings & Well-Being Risk	72.2%
Sexual Activity Risk	50.2%
Substance Use Risk	45.7%
<i>Risk in Any Category</i>	
% w/at least one risk	98.0%
% w/at least two risks	94.3%
% w/at least three risks	89.8%
Average # of risks	8.78 (s.d.=5.8)

Risk Category 1: Home/School Problems

The Home/School risk category includes four items and covers: living situation (who the student lives with), support (who the student can talk to), problems at home (including fighting, unemployment, etc.), and school problems (including grades, trouble with peers, etc.). Table 3a below shows the percentage of respondents with a risk on each item in the home/school problems risk category based on their responses to the eSHQ question, in addition to the percentage of cases in which the provider and student agreed, and, of those in which the provider and student did not agree divided these into student yes/provider no's and student no/provider yes'. Table 3b breaks down the types of comments that providers made when they disagreed with the eSHQ assessment of risk. In general, there was a high level of agreement among eSHQ and provider assessments of risk for all four items in this category. As was typical of all of the items, most of the mis-matches were categorized as student yes/provider no's. For the home problems and school problems items, this made sense, as many of the comments made by providers indicated that the problem was in the past and no longer an issue or was already being addressed. For example, some of the student yes/provider no's in the school problems category were considered being addressed because the student said they were on medication for ADHD and the medication was helping or that they had struggled with a certain class but were getting help and improving. The living situation items were less clear, however. Table 3c gives examples of the comments made by providers who disagreed with the eSHQ risk assessment. Providers who disagreed because they did not think there was a real risk even though the eSHQ indicated a risk often just listed the household members or made other comments about the living situation. This might indicate a lack of clarity among providers about what kind of home situation indicates a risk, or it might indicate that this item needs revising. Unlike many of the other items, the home life item asks students who they live with, allowing them to "check all that apply." If a student indicates that they live in a foster home/with foster parents or that they live with a cousin, friend, or "other," this is flagged as a risk.

Table 3a: Student/Provider Agreement and Disagreement on Risks Identified with the eSHQ: Home/School Risks

	% w/Student-Identified Risk on eSHQ	% Student/Provider Agreement	<i>Of those that disagree...</i>	
			Student Yes/Provider No	Student No/Provider Yes
Home/School Risks				
<i>Living Situation</i>	9.0%	72.7%	50.0%	50.0%
<i>Support System</i>	15.1%	70.2%	70.6%	29.4%
<i>Problems at Home</i>	20.0%	78.0%	75.0%	25.0%
<i>Problems at School</i>	41.2%	70.2%	90.9%	9.1%

Table 3b: Provider Explanation for Provider Disagreement with Student Risks: Home/School Risks

	Risk was in the past, no longer a concern	Risk is already being addressed	Student responded in error/ misunderstanding of question	Other
<i>Living Situation</i>	0.0%	0.0%	0.0%	100.0%
<i>Support System</i>	0.0%	0.0%	100.0%	0.0%
<i>Problems at Home</i>	20.0%	20.0%	0.0%	60.0%
<i>Problems at School</i>	0.0%	57.9%	10.5%	31.6%

Table 3c: Examples of Comments from Providers Regarding Disagreement with eSHQ Risk:

Living Situation:

Other: "8 kids in the home mom and stepdad, has not seen bio dad in 10 years"
"Back and forth btw 3 households. Bro 12y, 7y, 3mo."

Support System:

Other: "older sister, grandmother, several teachers at school"
"Cousin who lives by dad"
"One best friend, 13 year old sister"

Problems at Home:

Other: "Fighting with siblings, arguing with parents."
"Parents fighting, financial pressure"

Problems at School:

Risk is already being addressed: "Bringing up grades"
"Improving with medication, coming to school more often."
"Started adhd meds helping"

Other: "Due to work schedule. Is trying to cut back."
"Stressed at school and home"

Table 3d below shows the concordance measures for student and provider assessment of risks in the home and school problems risk category. None of the items in this category achieve the desired 0.70 or higher Kappa score, and only one reaches at least 0.50. This indicates low concordance among these items. Providers negated the majority of eSHQ flagged risks for these items. This indicates that the items are highly sensitive in picking up on potential risks that providers do not believe to be clinically significant.

Table 3d: Measures of Concordance of Student/Provider Risks, HS eSHQ – Home/School Problems Risks

Risk Item	Student Risk Status	Provider Risk Assessment		Agreement/Association
		No	Yes	
Home/Living Situation	No	176	15	K = 0.04
	Yes	15	2	
Support	No	167	10	K = 0.15
	Yes	24	5	
Problems at Home	No	--	--	--
	Yes	--	--	
Problems at School	No	117	4	K = 0.57
	Yes	40	55	

Table 3e: Reliability Analysis of Home/School Problems Items

	Mean	St. Dev.	Cronbach's Alpha If Item Removed
Home/School Risk Category	0.21	0.23	0.36
Home (living situation)	0.09	0.29	0.44
Support	0.15	0.36	0.42
Problems at Home	0.20	0.40	0.13
Problems at School	0.41	0.49	0.20

The reliability analysis of the home/school problems items indicate a low level of correlation among the items (Table 3e above). This is not surprising given that the items are structured differently from one another and address things that are not necessarily related. Given that the items are not intended to form one scale, this is not necessarily a problem. However, as a measure of validity, if problems with one of these items should predict problems with others within the same category, this could indicate that the items are not accurately reflecting what they are intended to reflect.

Risk Category 2: Health Behaviors

The health behaviors category includes 5 items and covers: exercise, screen time, diet, sleep, and preventive dental care. Tables 4a and 4b below show the percentage of respondents with risks for each of these items in addition to the percentages of cases in which the provider agreed with the eSHQ assessment of risk. These tables also show the types of disagreements (student yes/provider no's and student no/provider yes') and the types of comments made by providers who disagreed with the eSHQ risk assessment. Student responses and provider agreement varied across all of the items in the health behaviors risk category. For example, only about a quarter were flagged as being at risk for not getting enough exercise while 67.8% were flagged as at-risk because of their diet. Relative to other risk categories, student/provider agreement was low for these items. Screen time and diet generated the lowest levels of agreement, and the vast majority of these disagreements were student yes/provider no's, in which the provider did not see a risk where the eSHQ had flagged something as a risk. However, it seems like many of these student yes/provider no's could have been considered risks, as providers often just listed the different things that students did in the comments section (like using Facebook, YouTube, watching television, using a cell phone, etc.). For the diet item, providers said things like "likes vegetables" or eats them when available, but the student was not eating the recommended amount of fruits and vegetables.

Table 4a: Student/Provider Agreement and Disagreement on Risks Identified with the eSHQ: Health Behaviors

	% w/Student-Identified Risk on eSHQ	% Student/Provider Agreement	<i>Of those that disagree...</i>	
			Student Yes/Provider No	Student No/Provider Yes
<i>Exercise</i>	24.1%	67.8%	84.1%	15.9%
<i>Screen Time</i>	54.3%	48.2%	97.0%	3.0%
<i>Diet</i>	67.8%	40.8%	99.2%	0.8%
<i>Sleep</i>	40.8%	63.3%	91.9%	8.1%
<i>Dental Care</i>	24.9%	76.3%	96.0%	4.0%

Table 4b: Provider Explanation for Provider Disagreement with Student Risks: Health Behaviors

	Risk was in the past, no longer a concern	Risk is already being addressed	Student responded in error/ misunderstanding of question	Other
<i>Exercise</i>	0.0%	20.0%	53.3%	26.7%
<i>Screen Time</i>	0.0%	0.0%	15.6%	84.4%
<i>Diet</i>	0.0%	4.3%	2.2%	93.5%
<i>Sleep</i>	6.5%	3.2%	19.4%	71.0%
<i>Dental Care</i>	0.0%	15.4%	15.4%	69.2%

Table 4c: Examples of Comments from Providers Regarding Disagreement with eSHQ Assessment of Risk

Exercise:

Student responded in error/misunderstanding of question: "go for a walk daily (2 miles)"
"On tennis team"
"Walks a lot"
"Walks Mon.-Fri. for 30 minutes"

Screen Time:

Other: "2-3 h. Spends time outside"
"3-4 h twitter fb, email, utube, tv"
"Computer, youtube, fb, recipes. 2-3h/day"
"Likes to watch novellas, gets on fb"
"Plays sports, passing all classes"
"On phone. Video games on weekend only"
"Discussed"
"Discussed activity level."
"Discussed increasing activity level"

Diet:

Other: "1-2 per day"
"2-3/day. Veg at dinner"
"Allergic to fresh fruits and vegetables"
"Doesn't eat 5 servings"
"Healthy BMI"
"Junk food lately...pizza and McDonalds"
"Likes"
"Likes and eats when available"
"Likes them"
"Low access"

Sleep:

Other: "6-7 hrs but hard time falling asleep"
"6-7 hours per night. Has trouble falling asleep due to 'churning' over things."
"Busy with wk and school. Chores at home."
"Difficulty getting to sleep"
"Doesn't get much sleep since he was young"
"Goes to bed late at least half of the week"
"Hard to sleep at times"
"Has 3 month old"
"Has a hard time falling and staying asleep"

Preventive Dental Care:

Other: "Eight grade had a dental visit"
"2 years ago, wants a referral"
"Has not seen a dentist since 7th grade does not want appt."
"Since elementary"

Table 4d below shows the concordance measures for student and provider assessment of risks in the health behaviors risk category. Only one item in this category has a Kappa score above 0.50, indicating low concordance. Again, this is due to the fact that providers negate most of the eSHQ flagged risks, indicating that providers don't find the risks identified by the eSHQ to be clinically significant.

Risk Item	Student Risk Status	Provider Risk Assessment		Agreement/Association
		No	Yes	
Exercise	No	150	7	K = 0.32
	Yes	37	16	
Screen Time	No	79	16	K = 0.04
	Yes	24	5	
Diet	No	62	1	K = 0.14
	Yes	120	38	
Sleep	No	118	5	K = 0.38
	Yes	57	37	
Dental Care	No	152	1	K = 0.66
	Yes	24	35	

The reliability analysis of the health behaviors risk items indicates a low level of correlation among the items (Table 4e below). This is somewhat surprising, given that diet and exercise are generally related. However, this could be due to the construction of the items as dichotomous variables rather than a continuous measure. Dichotomous variables measuring diet and exercise essentially measure whether someone is perfect or not, not degrees of healthiness of one's diet or amount of physical activity. Better measures of each of these could improve the correlations among these items that should be correlated.

	Mean	St. Dev.	Cronbach's Alpha If Item Removed
Health Behaviors Risk Category	0.42	0.25	0.36
Exercise	0.24	0.43	0.28
Screen Time	0.54	0.50	0.29
Diet	0.68	0.47	0.29
Sleep	0.41	0.49	0.32
Dental Care	0.25	0.43	0.36

Risk Category 3: Safety & Injuries Risk

The Safety & Injuries risk category includes several items related to various aspects of safety (see Table 5a below). Risks varied across all of the items but student/provider agreement was typically high, and when students and providers disagreed it was usually a student yes/provider no. The reason for student yes/provider no's was different across items. In some cases, there seemed to be an actual risk even though the provider indicated that it wasn't a risk. For example, several providers indicated no risk for helmet use but wrote in the comments that the student does not wear a helmet. Some of the items in this category are "have you ever" items which also generated a high percentage of student yes/provider no's for things that are no longer a risk. In addition, carrying a weapon seemed to be unclear to students, several of whom said "yes" but when probed, only carried something like a knife when camping or hiking in the woods, which wasn't the intention of the question.

Table 5a: Student/Provider Agreement and Disagreement on Risks Identified with the eSHQ: Safety & Injuries

	% w/Student-Identified Risk on eSHQ	% Student/Provider Agreement	<i>Of those that disagree...</i>	
			Student Yes/Provider No	Student No/Provider Yes
<i>Seatbelt Use</i>	12.7%	78.0%	88.9%	11.1%
<i>Helmet Use</i>	44.5%	58.4%	100.0%	0.0%
<i>Safe Driving/Riding</i>	9.8%	78.8%	100.0%	0.0%
<i>Feel Threatened</i>	9.4%	81.2%	100.0%	0.0%
<i>Been Abused</i>	18.0%	80.4%	92.3%	7.7%
<i>Dating Violence</i>	1.6%	84.1%	100.0%	0.0%
<i>Carry a Weapon</i>	15.1%	75.5%	8.6%	0.0%
<i>Been Homeless</i>	8.6%	80.4%	100.0%	0.0%
<i>Been in Jail</i>	2.9%	82.9%	100.0%	0.0%

Table 5b: Provider Comments for Provider Disagreement with Student Risks: Safety & Injuries

	Risk was in the past, no longer a concern	Risk is already being addressed	Student responded in error/ misunderstanding of question	Other
<i>Seatbelt Use</i>	0.0%	0.0%	16.7%	83.3%
<i>Helmet Use</i>	4.8%	0.0%	42.9%	52.4%
<i>Safe Driving/Riding</i>	0.0%	0.0%	25.0%	75.0%
<i>Feel Threatened</i>	16.7%	16.7%	33.3%	33.3%
<i>Been Abused</i>	63.6%	27.3%	0.0%	9.1%
<i>Dating Violence</i>	0.0%	0.0%	100.0%	0.0%
<i>Carry a Weapon</i>	25.0%	0.0%	40.0%	35.0%
<i>Been Homeless</i>	100.0%	0.0%	0.0%	0.0%
<i>Been in Jail</i>	100.0%	0.0%	0.0%	0.0%

Table 5c: Examples of Comments from Providers Regarding Disagreement with eSHQ Assessment of Risk

Seatbelt	Other: "Always forgets" "I forget in town, dads seatbelt is broken" "Don't like the strap against my neck" "Forgets sometimes"
Helmet	Other: "Atv it was over 1 year ago" "Atv - has one but does not wear it. Discussed safety" "Atv, does not own a helmet" "Biking and skateboarding, does not have a helmet"
Safe Driving	Other: "not as much now since driving a standard" "Talk sometimes uses handsfree" "Talk, discussed safety as far as distractions" "Text sometimes"
Feeling Threatened	Other: "Rumors and bullying. Another student threatened to spread more rumors" "Step mom" "Step-dad"
Ever Been Abused	Risk was in the past, no longer a concern: "In the past. Has had counseling and no problems currently." "Last time 4-5 yrs ago" "Has seen therapist for anxiety. Sx improved" "No current abuse"
Dating Violence	<i>Only two provider comments for disagreement</i>
Carry a Weapon	Student responded in error/ misunderstanding of question: "Camping has knife as tool not for protection" "Gun or similar when out in the woods" "Knife out in the forest and rifle when hunting" "When out in the forest" Other: "carries a knife around home due to several drug dealers living nearby..." "Has one in truck, discussed" "Little sister gets picked on... knife" "Yes knife for protection"
Ever Been Homeless	Risk was in the past, no longer a concern: "Age 13" "Foster care previously" "Now with grandparents"
Ever Been in Jail	<i>Only four provider comments for disagreement.</i>

Table 5d below shows the concordance measures for student and provider assessment of risks in the safety and injuries risk category. These items display higher concordance than those in the previous two categories, with four Kappa scores over 0.70 and six over 0.50. While many of the eSHQ flagged risks were negated by providers, the percentages of negated risks were lower than in the previous two categories. This indicates that providers were more likely to agree that the risks flagged by the eSHQ were clinically significant.

Table 5d: Measures of Concordance of Student/Provider Risks, HS eSHQ – Safety & Injuries				
Risk Item	Student Risk Status	Provider Risk Assessment		Agreement/Association
		No	Yes	
Seatbelt	No	179	2	K = 0.53
	Yes	16	12	
Helmet	No	115	0	K = 0.28
	Yes	76	28	
Safe Driving	No	--	--	--
	Yes	--	--	
Feel Threatened	No	187	0	K = 0.76
	Yes	7	12	
Been Abused	No	167	1	K = 0.79
	Yes	12	30	
Dating Violence	No	204	0	K = 0.80
	Yes	1	2	
Carry a Weapon	No	173	0	K = 0.49
	Yes	21	12	
Ever Been Homeless	No	187	0	K = 0.64
	Yes	10	10	
Ever Been in Jail	No	199	0	K = 0.72
	Yes	3	4	

The reliability analysis of the safety and injuries risk items indicates a rather low level of correlation among the items (Table 5e below). This is somewhat surprising given that many of these should be correlated; however, the items in this section cover a broad range of topics that would not necessarily all be related to one another (for example, always wearing a seatbelt would not likely be related to having been homeless or in jail). These items also include a mixture of “ever” and current items, which won’t necessarily correlate well with one another as many of the “ever” risks are negated when assess by the provider due to being in the past and not a current risk.

Table 5e: Reliability Analysis of Safety & Injuries Items

	Mean	St. Dev.	Cronbach’s Alpha If Item Removed
Safety & Injuries Risk Category	0.14	0.14	0.45
Seatbelt	0.13	0.33	0.35
Helmet	0.44	0.50	0.42
Safe Driving	0.10	0.30	0.45
Feel Threatened	0.09	0.29	0.41
Been Abused	0.18	0.38	0.37
Dating Violence	0.02	0.13	0.43
Carry a Weapon	0.15	0.36	0.39
Ever Been Homeless	0.09	0.28	0.40
Ever Been in Jail	0.03	0.17	0.42

Risk Category 4: Feelings & Well-Being

The Feelings & Well-Being risk category includes six items addressing depression and anxiety risk, with two items from the PHQ-2 used to assess depression and two items addressing risk for self-harm or suicide. These risks varied as well, with less “extreme” items generating higher percentages of flagged risks than more extreme items (i.e., worrying vs. suicide risk). Student and provider agreement was relatively high among these items, and in most cases disagreements were student yes/provider no’s. The self-harm and suicide items are “ever” items and thus generate a high percentage of student yes/provider no’s due to things that are no longer a risk.

Table 6a: Student/Provider Agreement and Disagreement on Risks Identified with the eSHQ: Feelings & Well-Being

	% w/Student-Identified Risk on eSHQ	% Student/Provider Agreement	<i>Of those that disagree...</i>	
			Student Yes/Provider No	Student No/Provider Yes
<i>Worry</i>	43.3%	70.2%	100.0%	0.0%
<i>Stress</i>	54.7%	69.4%	100.0%	0.0%
<i>Depressed Mood</i>	37.1%	78.4%	86.4%	13.6%
<i>Doing Less</i>	35.1%	77.6%	96.0%	4.0%
<i>Self-Harm</i>	16.3%	80.4%	78.6%	21.4%
<i>Suicide</i>	15.5%	80.8%	83.3%	16.7%

Table 6b: Provider Explanation for Provider Disagreement with Student Risks: Feelings & Well-Being

	Risk was in the past, no longer a concern	Risk is already being addressed	Student responded in error/ misunderstanding of question	Other
<i>Worry</i>	4.5%	0.0%	59.1%	36.4%
<i>Stress</i>	3.4%	3.4%	13.8%	79.3%
<i>Depressed Mood</i>	14.3%	7.1%	21.4%	57.1%
<i>Doing Less</i>	5.6%	16.7%	22.2%	55.6%
<i>Self-Harm</i>	90.0%	0.0%	10.0%	0.0%
<i>Suicide</i>	80.0%	0.0%	20.0%	0.0%

Table 6c: Examples of Comments from Providers Regarding Disagreement with eSHQ Assessment of Risk

Worry

*Student responded in error/
misunderstanding of question:* "Concerned about grades"
"Denied worry"
"Denies"
"Does stress school college and high school."
"Panic yesterday at public speaking. Isolated incident."

Other: "Hinders social life"
"Anger and worry"
"Anxious often"
"Being cautious"
"Sometimes hinders her from going out"
"Worries a lot"

Stress

Other: "Always worried, accepts counseling"
"Has a lot of homework sometimes and feel overwhelmed"
"Pt feels that she is anxious and would like a referral"
"School"
"School and chores"

Depressed Mood

*Risk was in the past,
no longer a concern:* "He actually feeling better"
"Much improved with Zoloft"
"Journals and other self care. Not affecting life adversely now."
"Sad about two weeks ago for about 5 days for no reason"

Other: "Depressed, cousin just moved in. Feels like she has to please everybody."
"Feel like I can't do anything (school), episodic depressive symptoms, currently 6/10"
"Irritable and depressed for no reason"
"Irritable"
"Pt declines counseling, but will do a phq9"

Loss of Interest

Other: "Don't want to hang out with anyone, don't want to do anything anymore"
"Due to depression. See assessment"
"Just doesn't care, whatever goes...goes"

Self-Harm

*Risk was in the past,
no longer a concern:* "Cutting 12 y/o until 5 mo ago. Denied sense"
"Cutting in the past"
"Hx in middle school. Cutting."
"Previously cut herself for one month. Stopped over a year ago."
"Not currently"
"Not in 9 mo"
"In the past"

Suicide

*Risk was in the past,
no longer a concern:* "In the past."
"Not currently, last year had thoughts and plans but no attempt, plan was to od"
"In the past, no current SI. Has addressed with her therapist."

Table 6d below shows the concordance measures for student and provider assessment of risks for the items in the feelings and well-being risk category. These items show much stronger concordance than the items in the previous categories, with all items achieving Kappa scores above 0.50 and four of the six achieving Kappa scores above 0.70. Providers were less likely to negate the risks identified by the eSHQ. As discussed above, when providers did negate risks identified by the eSHQ it was often due to a risk being in the past and no longer an issue, which was frequently the case on items that did not include a time frame (the “ever” questions).

Table 6d: Measures of Concordance of Student/Provider Risks, HS eSHQ – Feelings & Well-Being

Risk Item	Student Risk Status	Provider Risk Assessment		Agreement/Association
		No	Yes	
Worry	No	118	0	K = 0.59
	Yes	41	54	
Stress	No	95	0	K = 0.57
	Yes	49	75	
Depressed Mood	No	125	3	K = 0.78
	Yes	19	67	
Doing Less	No	135	1	K = 0.73
	Yes	24	55	
Self-Harm	No	174	3	K = 0.73
	Yes	11	23	
Suicide	No	175	2	K = 0.76
	Yes	10	23	

The reliability analysis of the feelings and well-being risk items indicates a high level of correlation among the items. This is to be expected, given that the items are drawn from typical risk screen items for depression and anxiety and, which reflecting different degrees of depression and anxiety, all measure the same underlying construct. Given that all of the items in this section are measuring one underlying construct, they could be used to form a scale that could trigger a flag if a certain score is reached. This would exclude the suicide and self-harm items, of course, as these should be addressed if positive no matter what. These items would be stronger if they included a time frame, however, as many of the positive responses were negated because they were no longer an issue.

Table 6e: Reliability Analysis of Feelings & Well-Being Items

	Mean	St. Dev.	Cronbach's Alpha If Item Removed
Feelings & Well-Being Risk Category	0.34	0.34	0.77
Worry	0.43	0.50	0.73
Stress	0.55	0.50	0.73
Depressed Mood	0.37	0.48	0.70
Doing Less	0.35	0.48	0.73
Self-Harm	0.16	0.37	0.74
Suicide	0.16	0.36	0.74

Risk Category 5: Sexual Activity & Relationships

The Sexual Activity & Relationships risk category includes five risk items and is designed so that students only answer all of the questions in this section if they answer “yes” to the initial question about having ever had sex. Not all students had to answer the question about condoms, preventing pregnancy, and STDs and the percentage of students at-risk for these items was relatively low. This category had relatively higher rates of student no/provider yes’ than other items, with providers uncovering risks that weren’t flagged on the eSHQ. This tended to be the case when students indicated that they were using some method to prevent pregnancy, but the provider found that method to be inadequate, or that they did not “always” use condoms.

Table 7a: Student/Provider Agreement and Disagreement on Risks Identified with the eSHQ: Sexual Activity

	% w/Student-Identified Risk on eSHQ	% Student/Provider Agreement	<i>Of those that disagree...</i>	
			Student Yes/Provider No	Student No/Provider Yes
<i>Had Sex</i>	50.2%	62.4%	98.3%	1.7%
<i>Using Condoms</i>	18.8%	73.9%	66.7%	33.3%
<i>Preventing Pregnancy</i>	34.3%	52.2%	70.9%	29.1%
<i>Been Pregnant</i>	4.5%	77.1%	35.3%	64.7%
<i>STDs</i>	2.4%	76.7%	6.7%	93.3%

Table 7b: Provider Explanation for Provider Disagreement with Student Risks: Sexual Activity

	Risk was in the past, no longer a concern	Risk is already being addressed	Student responded in error/ misunderstanding of question	Other
<i>Had Sex</i>	44.4%	0.0%	0.0%	55.6%
<i>Using Condoms</i>	0.0%	0.0%	7.7%	92.3%
<i>Preventing Pregnancy</i>	0.0%	66.7%	16.7%	16.7%
<i>Been Pregnant</i>	66.7%	0.0%	33.3%	0.0%
<i>STDs</i>	0.0%	0.0%	0.0%	100.0%

Table 7c: Examples of Comments from Providers Regarding Disagreement with eSHQ Assessment of Risk

Had Sex

**Risk was in the past,
no longer a concern:** "One male partner in past. No one currently."
"Previous sexual activity, 2 years ago."

Other: "Uses condoms always"
"Uses protection"
"Women only. Uses condoms only."

Use Condoms

Other: "Got tested for STDs"
"Most of the time. On OCPs, had STI testing."
"Once, didn't have any. Condoms given"
"None at all"
"Not always"

Preventing Pregnancy

Risk is already being addressed: "Depo"
"Pills"
"Implanon"

Ever Been/Gotten Someone Pregnant:

Only four provider comments for disagreements.

STD Risk:

Other: "Declines STI testing."
"No symptoms"
"Sent CH today"

Table 7d below shows the concordance measures for student and provider assessment of risks for the sexual activity risk category items. These items showed particularly low concordance. This was partially due to the structure of the section such that respondents were only asked all of the items if they answered positively to the first about "ever" having sex. Few respondents were flagged as being at-risk for the remainder of the items. As discussed above, the item about always using condoms triggered several student yes/provider no's that providers could have left as a risk, given that the comments indicated that the respondent was actually at risk. Several of the risks associated with methods for preventing pregnancy were negated by providers because the student was there to be prescribed some type of birth control. Concordance could be increased for these items by adding time frames, where applicable, and clarifying questions.

Table 7d: Measures of Concordance of Student/Provider Risks, HS eSHQ – Sexual Activity & Relationships

Risk Item	Student Risk Status	Provider Risk Assessment		Agreement/Association
		No	Yes	
Sexually Active	No	102	1	K = 0.45
	Yes	59	51	
Always Use Condoms	No	154	8	K = 0.62
	Yes	16	27	
Prevent Pregnancy	No	113	23	K = 0.05
	Yes	56	15	
Ever Been Pregnant	No	185	11	K = 0.28
	Yes	6	4	
STD Risk	No	184	14	K = 0.32
	Yes	1	4	

The reliability analysis of the sexual activity risk items indicate that these items are correlated, but not as strongly as one would expect, given that all are related to safe sex and the risks incurred with unsafe sex (Table 7e below). The lower than expected correlations could be due to the construction of the items, which varies from item to item, and the fact that they include a mixture of ever and current items. Like the feelings and well-being items, these too could be made into one scale indicating a significant or not level of sexual activity risk, which would cut down on student yes/provider no's and possible "alarm fatigue." The items would need to be restructured for consistency to do this.

Table 7e: Reliability Analysis of Sexual Activity Items

	Mean	St. Dev.	Cronbach's Alpha If Item Removed
Sexual Activity Risk Category	0.22	0.25	0.64
Sexually Active	0.50	0.50	0.43
Always Use Condoms	0.19	0.39	0.62
Prevent Pregnancy	0.34	0.48	0.55
Ever Been Pregnant	0.04	0.21	0.69
STD Risk	0.02	0.15	0.70

Risk Category 6: Substance Use

The Substance Use risk category includes 10 items but is designed so that respondents only answer all items if they answer positively to the one of the initial items. The first five items are asked of all respondents and ask about tobacco, alcohol, marijuana, and other drug use and riding/driving in cars while under the influence. A positive response on any one of these triggers the remaining items that further ask about drug and alcohol use. These five items are the remaining CRRRAFT items, a well-known risk screen for drug and alcohol abuse. Nearly three-quarters of respondents answered that they used some kind of tobacco product and about a quarter indicated alcohol or marijuana use. Few reported using “other” drugs. There was a high percentage of student/provider agreement for all of these items, but also a relatively high percentage of student no/provider yes’ for the CRRRAFT items. It is also unclear why there is disagreement on these items because many of the comments indicated that the respondent is engaging in the described behavior (e.g., using drugs to relax).

Table 8a: Student/Provider Agreement and Disagreement on Risks Identified with the eSHQ: Substance Use

	% w/Student-Identified Risk on eSHQ	% Student/Provider Agreement	<i>Of those that disagree...</i>	
			Student Yes/Provider No	Student No/Provider Yes
<i>Tobacco Use</i>	72.2%	86.9%	100.0%	0.0%
<i>Riding/Driving while Using</i>	24.5%	76.3%	91.7%	8.3%
<i>Alcohol Use</i>	24.5%	73.1%	93.9%	6.1%
<i>Marijuana Use</i>	22.9%	80.0%	94.4%	5.6%
<i>Other Drug Use</i>	4.5%	81.6%	25.0%	75.0%
<i>Use to Relax</i>	8.6%	81.2%	44.4%	55.6%
<i>Use Alone</i>	11.8%	80.4%	66.7%	33.3%
<i>Forget Things</i>	8.2%	80.0%	53.8%	46.2%
<i>Family Problems</i>	6.1%	81.2%	50.0%	50.0%
<i>Got in Trouble</i>	11.0%	81.2%	60.0%	40.0%

Table 8b: Provider Explanation for Provider Disagreement with Student Risks: Substance Use

	Risk was in the past, no longer a concern	Risk is already being addressed	Student responded in error/ misunderstanding of question	Other
<i>Tobacco Use</i>	33.3%	0.0%	9.5%	57.1%
<i>Riding/Driving while Using</i>	86.7%	0.0%	0.0%	13.3%
<i>Alcohol Use</i>	36.8%	0.0%	10.5%	52.6%
<i>Marijuana Use</i>	44.4%	0.0%	0.0%	55.6%
<i>Other Drug Use</i>	100.0%	0.0%	0.0%	0.0%
<i>Use to Relax</i>	25.0%	0.0%	0.0%	75.0%
<i>Use Alone</i>	0.0%	0.0%	50.0%	50.0%
<i>Forget Things</i>	66.7%	0.0%	0.0%	33.3%
<i>Family Problems</i>	33.3%	0.0%	33.3%	33.3%
<i>Got in Trouble</i>	66.7%	0.0%	0.0%	33.3%

Table 8c: Examples of Comments from Providers Regarding Disagreement with eSHQ Assessment of Risk

Tobacco Use

Risk was in the past, "Does not do this anymore"
no longer a concern: "E cig one time only"
"Not currently"

Other: "Chew- 3 yrs 1 can a day"
"Hookah, once every two weeks"
"smoke cigarettes, helps with stress, one cigarette a week"

Drive/Ride While Using Drugs/Alcohol:

Risk was in the past, "Happened once"
no longer a concern: "Dad was a drinker and was always drunk. But is no longer visits with father"
"Once"
"Not recently. Several years back"

Alcohol Use

Risk was in the past, "Meant to say no, it was one sip one time"
no longer a concern: "Once camping"

Other: "Been and hard liq. Once every 2 months- 10 drinks on a typical day"
"Beer, 8-9 beefs."
"Etoh occas. Wine"

Marijuana Use

Risk was in the past, "Couple times last year, didn't like it"
no longer a concern: "In past"
"Stopped Marijuana 1 1/2 months ago, was only doing it occasionally"

Other: "Twice a month"
"Rarely"
"One a week at the most."

Other Drug Use

Only three provider comments for disagreement.

Use Drugs to Relax

Other: "Relax if at a party"
"Relaxing"
"smoke pot to relax"

Use Drugs Alone

Other: "Etoh, beer usually 2-3"
"Marijuana by myself"

Forget Things

Only four provider comments for disagreement.

Family Trouble

Only three provider comments for disagreement.

Trouble because of Drugs

Risk was in the past, "2 years ago"
no longer a concern: "Is not drinking now"

Other: "Got in trouble with mom."
"Mom found weed in my room, either ground me or kick me out to dads..."

Table 8d below shows the concordance measures for student and provider assessment of substance use risk. These items showed higher concordance than many of the other items in the eSHQ, which might be due to the inclusion of the CRAFFT items. All but one of the 10 items had a Kappa score over 0.50 and four had Kappa scores of 0.70 or more.

Table 8d: Measures of Concordance of Student/Provider Risks, HS eSHQ – Substance Use				
Risk Item	Student Risk Status	Provider Risk Assessment		Agreement/Association
		No	Yes	
Tobacco Use	No	157	0	K = 0.48
	Yes	32	20	
Riding/Driving Car	No	154	2	K = 0.67
	Yes	22	33	
Alcohol Use	No	154	2	K = 0.52
	Yes	31	25	
Marijuana Use	No	161	1	K = 0.75
	Yes	17	35	
Other Drug Use	No	191	6	K = 0.67
	Yes	2	9	
Use Drugs to Relax	No	185	5	K = 0.73
	Yes	4	14	
Use Drugs Alone	No	178	4	K = 0.73
	Yes	8	19	
Forget While Using	No	186	6	K = 0.57
	Yes	7	10	
Problems with Family	No	187	3	K = 0.78
	Yes	3	12	
Trouble because of Drugs	No	181	4	K = 0.54
	Yes	6	18	

The reliability analysis of the substance use risk items indicates a high level of correlation among these items (Table 8e below). This is to be expected, given that all are measuring the use of various substances and the subsequent problems caused by the use of different substances. In addition, these items are derived from a validated scale used to measure substance use problems, the CRAFFT. These items could be put to better use by utilizing the scoring method of the CRAFFT, which looks for two or more positive responses to indicate a possible substance use problem. This would be useful for reducing student yes/provider no's and alarm fatigue.

Table 8e: Reliability Analysis of Substance Use Items

	Mean	St. Dev.	Cronbach's Alpha If Item Removed
Substance Use Risk Category	0.15	0.22	0.85
Tobacco Use	0.24	0.43	0.83
Riding/Driving Car	0.24	0.43	0.84
Alcohol Use	0.24	0.43	0.83
Marijuana Use	0.23	0.42	0.81
Other Drug Use	0.04	0.21	0.85
Use Drugs to Relax	0.09	0.28	0.83
Use Drugs Alone	0.12	0.32	0.82
Forget While Using	0.08	0.27	0.83
Family Trouble	0.06	0.24	0.84
Trouble	0.11	0.31	0.83

Correlations between Risk Categories

Previous research indicates that certain types of risks should correlate with one another, thus providing another way to assess the validity of the eSHQ items. Table 9 shows the correlations between risk categories and items. Summary scores were created by totaling risks within each category. Some of the expected correlations were present in the data, while others were not. Past research indicates that exposure to violence should be associated with depression and substance use.¹ The current abuse or threats and past abuse items were both correlated with depression risk and substance use risk in the eSHQ data. The partner violence item was not correlated with depression but was correlated with substance use. Past research also indicates that substance use is associated with both depression and suicide risk, and these correlations were also found in the eSHQ data²³. Finally, sexual activity has also been found to be associated with both depression and suicide risk, but these items were not correlated in the eSHQ data⁴⁵.

Seeing these expected correlations among depression, violence, and substance use is another indication of the validity of these measures. This is not surprising, given that the items used to measure depression risk and substance use are taken from previously validated instruments. The lack of expected correlations among sexual activity and other risk factors is somewhat surprising but might have to do with the construction of the sexual activity item as an “ever” item; significant correlations might have been found if the item were asking about current sexual activity only.

Table 9: Correlations between Risk Categories & Items

	Depression		Substance Use		Sexual Activity	
	Pearson Correlation	Significance	Pearson Correlation	Significance	Pearson Correlation	Significance
Current Abuse/Threats	0.416	***	0.259	***		
Past Abuse	0.505	***	0.351	***		
Partner Violence	0.086		0.123	*		
Depression			0.367	***	0.073	
Suicide Risk			0.305	***	0.088	

¹ Kilpatrick, Dean G., Kenneth J. Ruggiero, Ron Acierno, Benjamin E. Saunders, Heidi S. Resnick, and Connie L. Best. “Violence and Risk of PTSD, Major Depression, Substance Abuse/Dependence, and Comorbidity: Results from the National Survey of Adolescents.” *Journal of Consulting and Clinical Psychology* 71(4):692-700.

² Costello, Jane, AlaattinErkanli, Elizabeth Federman, and Adrian Angold. 1999. “Development of Psychiatric Comorbidity and Substance Use in Adolescents: Effects of Timing and Sex.” *Journal of Clinical Child Psychology* 28(3):298-311.

³ King, Cheryl A., NeeraGhaziuddin, Laurie McGovern, Elena Brand, Elizabeth Hill, and Michael Naylor. 1996. “Predictors of Comorbid Alcohol and Substance Abuse in Depressed Adolescents.” *Journal of the American Academy of Child and Adolescent Psychiatry* 35(6):743-751.

⁴Kaltiala-Heino, Riittakerttu, Elise Kosunen, and MattiRimpela. 2003. “Pubertal timing, sexual behavior, and self-reported depression in middle adolescence.” *Journal of Adolescence* 26:531-545.

⁵Hallfors, Denise D., Martha W. Waller, Carol A. Ford, Carolyn T. Halpern, Paul H. Brodish, and Bonita Iritani. 2004. “Adolescent Depression and Suicide Risk: Association with Sex and Drug Behavior.” *American Journal of Preventive Medicine* 27(3):224-230.

Summary & Recommendations

The eSHQ is a great tool for screening for a myriad of potential health risks in adolescence. It displays a high level of sensitivity and the rate of provider-identified risks that were not flagged by the eSHQ is low for all items. This is good because it means that it would be rare for the eSHQ to “miss” a potential risk and providers can feel comfortable that anything that needs to be addressed will be flagged by the tool. However, its level of sensitivity is perhaps too high, as nearly all respondents were flagged with at least one risk and many had more than one. While this might lead to more thorough conversations between providers and students, it could also lead to “alarm fatigue” among providers, leading them to disregard the risk flags. The mixture of items on the eSHQ and the way the eSHQ seems to be used in practice, in which many things that are risks are marked “not a risk” by providers, makes it somewhat confusing as to whether the tool is intended to be a risk screening tool in a strict sense or more of a “pre-visit questionnaire.” Pre-visit questionnaires are designed to be more open and their purpose to open up the lines of communication between providers and their patients. For this reason, they don’t often include validated items intended to assess present risks. While risk screens can and do open up lines of communication between providers and their patients, their primary purpose to provide an efficient way to identify current risks that need to be identified and addressed, not necessarily to establish a patient history. The following recommendations are made based on the assumption that the eSHQ is intended to be a risk screening tool, not a pre-visit questionnaire.

- ***Consider revising specific questions for clarity, both for the student and the provider –***

As discussed in the results section, some of the items seem to lack clarity, thus leading to student yes/provider no’s that could potentially be avoided with some wording changes. Providers negated many of the flagged risks for physical activity because students checked no discounting the time they spent in organized sports or other activities that count as exercise. Providers also negated several of the flagged risks for carrying a weapon because students checked yes if they carried a knife when hiking or camping, which is not the intention of the question. Adding some explanation could help avoid these student yes/provider no’s and ensure that the eSHQ is truly capturing risks.

- ***Add time frames to “ever” items –***

Several items throughout the eSHQ ask if a student has “ever” done or experienced something. These items trigger a lot of student yes/provider no’s that providers later negate because the event or issue is in the past and no longer relevant. While it may be important to know some of these things in order to have a complete history on a student, for the purposes of capturing current and real risks, time frames should be added to these items. “Ever” items lead to a lot of student yes/provider no’s which could lead to “alarm fatigue” among providers who are asked to review so many potential “risks” with students that aren’t real risks, which could have the unintentional consequence of providers starting to ignore risks because so often the things that are flagged as risks are not risks. Some of the items that could benefit from a time frame include the items asking about abuse, suicide, self-harm, sexual activity, homelessness, and jail.

- ***Utilize the embedded validated screening items –***

The eSHQ includes items from the PHQ-2 in the feelings and well-being section and the CRAFFT in the substance use section. These are great items and their inclusion led to higher levels of correlation among the items and higher levels of concordance. However, to fully realize their potential, and as another way to reduce alarm

fatigue, the scoring mechanisms developed for these should be utilized when flagging risks in the eSHQ. The CRAFFT is scored such that respondents need two or more positive responses to be flagged as a risk, whereas in the eSHQ, each is used as a stand-alone item and any positive response is flagged as a risk. Given that this is a validated and widely used set of items, it would be wise to follow the established protocol for determining substance use risk when used as part of the eSHQ. Further, the feelings and well-being section could be revised to rely more on an established risk screen, like the PHQ-2, and instead of just including these items among other items, use a standardized risk screen for depression and anxiety in this section that would use a scoring mechanisms similar to the CRAFFT.

- ***Construct items within risk categories to be consistent, when possible –***

Items within a risk category should be consistent in their construction to allow for easier answering among students and better scoring and risk identification among providers. This would involve making sure that a set of items is either asked in the “ever” tense or with a consistent time frame (during the past 12 months, during the past 2 weeks, etc.). In addition, they should include the same response format whenever possible (yes/no, etc.).

- ***Utilize response formats that are not dichotomous when possible –***

While many of the items asked in the eSHQ are asking about things that are either present or not, many are asking about things that occur in degrees, as do most things in life. Asking questions in an all or nothing format is neither true to real life experiences nor accurate when identifying risks. For example, asking “how often do you wear a seatbelt...” or “how often do you wear a helmet when” with response options ranging from never, sometimes, usually, and always would eliminate student yes/provider no’s due to that one time when a student rode in a car in which there weren’t enough seatbelts, for example, and allowing providers to focus on this when it’s truly an issue. Questions about diet, exercise, screen time, and sleep would also benefit from such a format.

- ***Consider developing guidance to accompany the screening tool –***

Certain items generated responses from providers that are concerning. For example, many of the risks flags for not getting enough sleep were negated by providers even when the comments would indicate that sleep really was an issue for that student. It is unclear why providers would not consider these risks. If the student’s response is going to flag a risk for something like not getting enough sleep, it might help to have the provider function display something about sleep risks, things to discuss with the student, further prompts, etc., to help ensure that these risks are addressed appropriately.

STUDENT HEALTH QUESTIONNAIRE

For High School Students

NOTE: The information you provide on this form is CONFIDENTIAL and will not be shared outside of this clinic without your permission. The only exceptions to this are if you are thinking about harming yourself or someone else or if you are being abused. By law, our staff has to report this information. We will also assist you in getting the help that you need. We would like you to fill this form out completely, but you can choose to skip questions you do not want to answer. This form will help us give you the best care possible.

Name: _____ Date of Birth: _____
Last First Middle Initial

Age: _____ Grade: _____ Gender: Female Male Other: _____ Today's Date: _____

Are you Hispanic or Latino/a? <input type="checkbox"/> Yes <input type="checkbox"/> No	What is your race? (Check all that apply) <input type="checkbox"/> American Indian or Alaskan Native <input type="checkbox"/> White <input type="checkbox"/> Native Hawaiian or other Pacific Islander <input type="checkbox"/> Black or African American <input type="checkbox"/> Asian
---	--

Which of the following best describes you? Heterosexual (straight) Gay or Lesbian Bisexual Not sure

HOME/SCHOOL

1. Who do you live with? (Check all that apply)

<input type="checkbox"/> Two mothers	<input type="checkbox"/> Two fathers	<input type="checkbox"/> Mother	<input type="checkbox"/> Father
<input type="checkbox"/> Step-Mother	<input type="checkbox"/> Step-Father	<input type="checkbox"/> Mother's boyfriend/partner	<input type="checkbox"/> Father's Girlfriend/partner
<input type="checkbox"/> Foster parent	<input type="checkbox"/> Sister	<input type="checkbox"/> Brother	<input type="checkbox"/> Grandparent(s)
<input type="checkbox"/> Aunt	<input type="checkbox"/> Uncle	<input type="checkbox"/> Cousin	<input type="checkbox"/> Friend
<input type="checkbox"/> Other _____			

2. Who do you feel you can really talk to? (check all that apply)

<input type="checkbox"/> Friend	<input type="checkbox"/> Parent	<input type="checkbox"/> Other adult _____
<input type="checkbox"/> Brother/Sister	<input type="checkbox"/> Teacher	<input type="checkbox"/> Online friend
<input type="checkbox"/> Other _____		
<input type="checkbox"/> Other relative		

3a. Are you having any of the following problems at home? (Check all that apply)

<input type="checkbox"/> Violence	<input type="checkbox"/> Concerns with a family member	<input type="checkbox"/> Other _____
<input type="checkbox"/> Fighting	<input type="checkbox"/> Parent/guardian out of work	<input type="checkbox"/> I don't have any of these problems

3b. Are you having any of the following problems at school? (Check all that apply)

<input type="checkbox"/> Missing school	<input type="checkbox"/> Grades	<input type="checkbox"/> Other _____
<input type="checkbox"/> Suspension	<input type="checkbox"/> Bullying (in person, or through social media)	<input type="checkbox"/> I don't have any of these problems

HEALTH BEHAVIORS

4. Do you usually participate in physical activities, such as walking, skateboarding, dancing, swimming, or playing basketball, for a total of 1 hour every day?	<input type="checkbox"/> Yes <input type="checkbox"/> No
5. Do you usually watch TV, play video games, or spend time on the computer for more than 2 hours per day (not including computer time for school or work)?	<input type="checkbox"/> Yes <input type="checkbox"/> No
6. Do you usually eat 5 or more servings of vegetables and fruits every day?	<input type="checkbox"/> Yes <input type="checkbox"/> No
7. Do you usually get 8 or more hours of sleep every night?	<input type="checkbox"/> Yes <input type="checkbox"/> No
8. In the last 12 months, have you seen a dentist or gone to a dental clinic?	<input type="checkbox"/> Yes <input type="checkbox"/> No

SAFETY/INJURIES

9. Do you always wear a seatbelt when driving or riding in a car, truck or van?	<input type="checkbox"/> Yes <input type="checkbox"/> No
10. Do you always wear a helmet when rollerblading, biking, motorcycling, skateboarding, ATV, skiing or snowboarding?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Does not apply to me
11. Do you text, talk or surf the internet on your cell phone while you are driving?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Does not apply to me
12. Is there someone at home, school, or anywhere else who has made you feel afraid, threatened you or hurt you?	<input type="checkbox"/> Yes <input type="checkbox"/> No
13. Have you ever been physically, sexually or emotionally abused?	<input type="checkbox"/> Yes <input type="checkbox"/> No
14. In the past 12 months did your boyfriend/girlfriend ever hit, slap or hurt you on purpose?	<input type="checkbox"/> Yes <input type="checkbox"/> No
15. Have you ever carried a weapon (gun, knife, club, etc.) to protect yourself?	<input type="checkbox"/> Yes <input type="checkbox"/> No
16. Have you ever been in foster care, a group home, or homeless?	<input type="checkbox"/> Yes <input type="checkbox"/> No
17. Have you ever been in jail or in a detention center?	<input type="checkbox"/> Yes <input type="checkbox"/> No

FEELINGS/WELL-BEING

18. Do you often worry about or feel like something bad might happen?	<input type="checkbox"/> Yes <input type="checkbox"/> No
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