

Comprehensive Sex Education:  
CMSD – Safer Choices  
Wellness Schools – FLASH & Draw the  
Line

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*Final Evaluation (August – January): School Year 2014-2015*

## Purpose

The primary goal of school-based sexual health education is to help young people build a foundation as they mature into sexually healthy adults. School-based sexual health education is designed to complement and augment the sexual education children receive from their families, religious and community groups, and health care professionals. Sexual health education should assist young people in understanding a positive view of sexuality, provide them with information and skills for taking care of their sexual health, and help them make sound decisions now and in the future.

Comprehensive sexuality education programs promote abstinence as the most effective way to prevent teen pregnancy and sexually transmitted infections (STI) while also teaching accurate and age-appropriate information on healthy relationships, contraception, and STI's. Providing this information to adolescents allows them to make responsible decisions about sexual activity.

Numerous studies and evaluations published in peer-reviewed literature have found that comprehensive sexual health programs that teach teens about both abstinence and contraception/disease prevention are effective strategies to help young people delay their initiation of sexual intercourse. Reviews of published evaluations of comprehensive sexual health education have shown a positive impact on the behaviors of adolescents, including:

- An increase in the use of contraception
- A decrease in the onset of sexual activity
- A decrease in the number of sexual partners
- A decrease in the frequency of sexual activity

## Findings

The comprehensive sexual education program was conducted in the Cleveland Municipal School District (CMSD) using the Safer Choices curriculum and Wellness Schools using F.L.A.S.H. and Draw the Line curriculum. Beech Brook and Planned Parenthood conducted the classes together for CMSD while districts in the Wellness school program were conducted by Beech Brook. Measurements were taken at the beginning and end of the program to assess knowledge acquisition. The following results indicated that both programs were successful in delivering the curriculum to the student body:

- All programs were successful in providing students with information they did not have at the beginning of the school year.
- CMSD students (both grades) showed overall improvement at post-test.
- CMSD teachers were very satisfied with the program instructors, agreeing at both grade levels that information was clear, students were kept involved, respected, and had their questions answered.
- The F.L.A.S.H. program displayed the highest outcomes with both grades having the posting aggregate scores greater than 80%.
- Wellness school teachers were also very satisfied with the program instructors, providing very high satisfaction scores.
- Students in the Wellness Schools provided were also satisfied with the program, with satisfaction scores ranging from high 70's to low 90's.

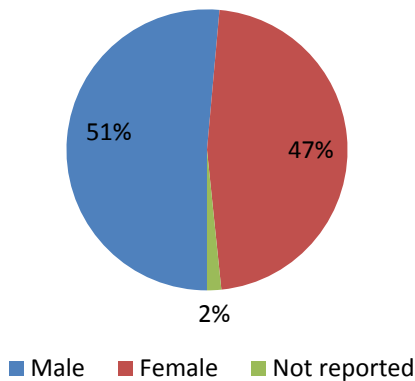
## Demographics

### Safer Choices and Wellness combined

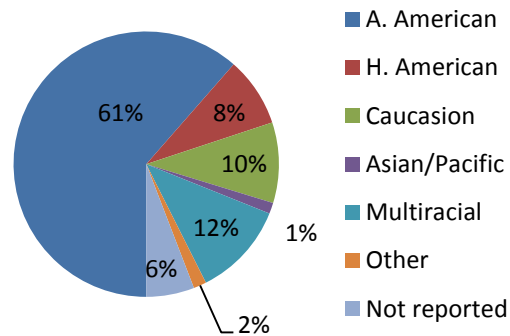
Demographics were collected for 4,716 students from September to January for both programs. Fifty-one percent of this group was male. Ages ranged from 10 to 17 years, with ages 10 to 12 years (36%) and ages 15 to 16 years (36%) being the majority of students served. African American (61%) was the largest reported race; see Table 1 and Charts 1, 2, and 3.

Table 1: Demographics for Safer Choices and Wellness combined – August 2014 to January 2015											
Total: 4,716											
Gender		Age				Race/Ethnicity					
Female	Male	10-12	13-14	15-16	17+	African American	Hispanic	Caucasian	Asian	Multiracial	Other
2,214	2,425	1,683	1,138	1,678	153	2,898	399	463	63	543	74
51%	47%	36%	24%	36%	3%	61%	8%	10%	1%	12%	2%

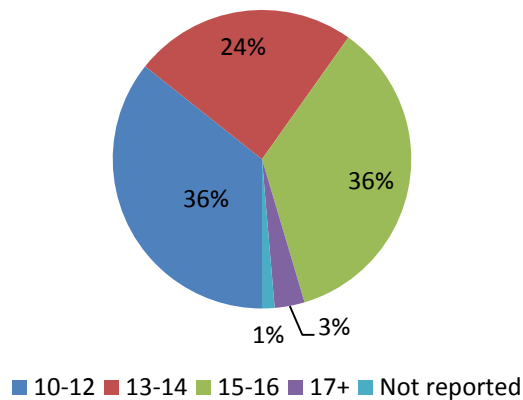
**Chart 1: Gender**



**Chart 2: Race/Ethnicity**



**Chart 3: Age range**



## Program Findings

### Cleveland Municipal School District – Safer Choices

The Safer Choices comprehensive sex education program was conducted in the CMSD. Sixteen<sup>1</sup> (16) schools participated in the program: Cleveland Early College @ John Hay, Cleveland School of Architecture and Design @ John Hay, Cleveland School of Medicine @ John Hay, Martin Luther King Jr. Health Careers Center, Martin Luther King Jr. Law & Municipal Careers, Lincoln- West, Whitney Young, Collinwood College Board Academy, New Tech @ Collinwood, Glenville High School, John Marshall High School, Max S. Hayes High School, Ginn Academy, Success Tech Academy, Thomas Jefferson International Newcomers Academy, and Facing History. Ninth and tenth grades participated in the program. Participants were tested at the onset of the program to gauge baseline knowledge of the content and at the close, giving a pre-test-post-test comparison of retained information. The same test was administered at both intervals. The test consists of 24 questions: 12 true-false and 12 agree-disagree.

### Overall evaluation

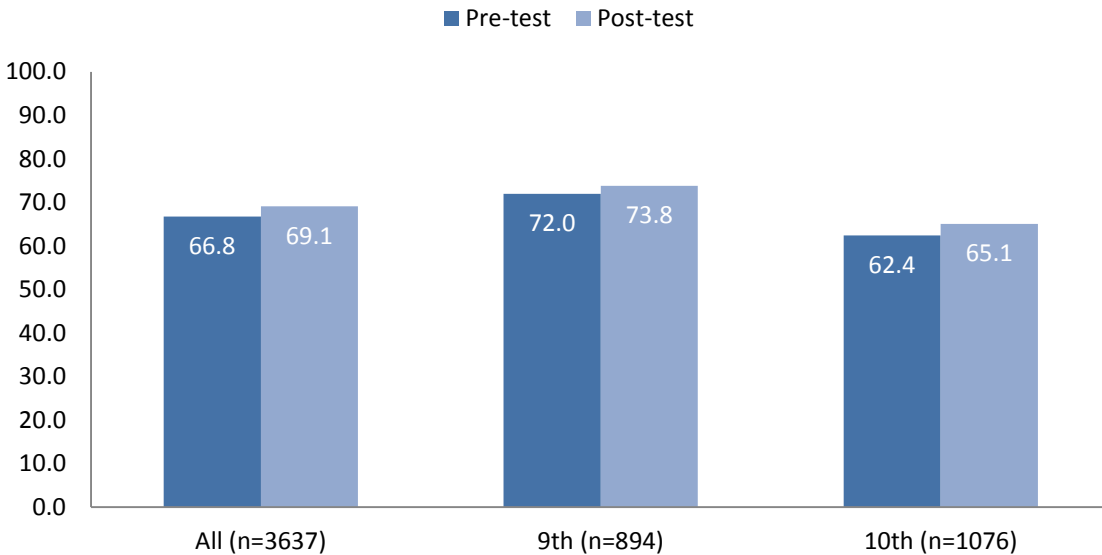
A total of 3,637 tests were able to be analyzed. Results indicated that significant improvement occurred across testing periods. The median score was 71% and the range was 4% to 100%. Although the average retention was minimal, improvement at post-test was significant ( $p < .001$ ) with an average increase of 2.4%. Both grade levels showed significant improvement, with 9<sup>th</sup> graders testing higher than 10<sup>th</sup> graders at both testing periods. However, 10<sup>th</sup> graders improved by a larger magnitude (2.7% versus 1.8%). See Table 1.

	Pre-test N	Pre-test (%)	Post-test N	Post-test (%)	Change	<i>p</i> value (Sig.)
Overall	1970	67.0	1667	69.4	+2.4	0.000
9 <sup>th</sup>	894	72.5	778	74.3	+1.8	0.010
10 <sup>th</sup>	1076	62.4	889	65.1	+2.7	0.001

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<sup>1</sup> The following schools did not have pre/post analysis done due to scheduling conflicts or cancelled classes: Whitney Young, Thomas Jefferson International Newcomers Academy, and Facing History

### Chart 1: Safer Choices Evaluation Score % Overall



#### Question-level evaluation

##### 9<sup>th</sup> Grade

An analysis for each question was also performed to compare pre-test and post-test improvement. Fourteen (14) of the 24 questions asked showed improvement at post-test. Question 14 showed the largest improvement (+13.0) while question 17 showed the least (-8.0). Although there were several questions that had declines in score at post-test,; these movements were mostly small and most likely due to variance (i.e. there are very low scores skewing the post-test mean; there are differences in n-size from pre-test to post-test). See Chart 2, page 5. Also see the Appendix for an unabbreviated question list.

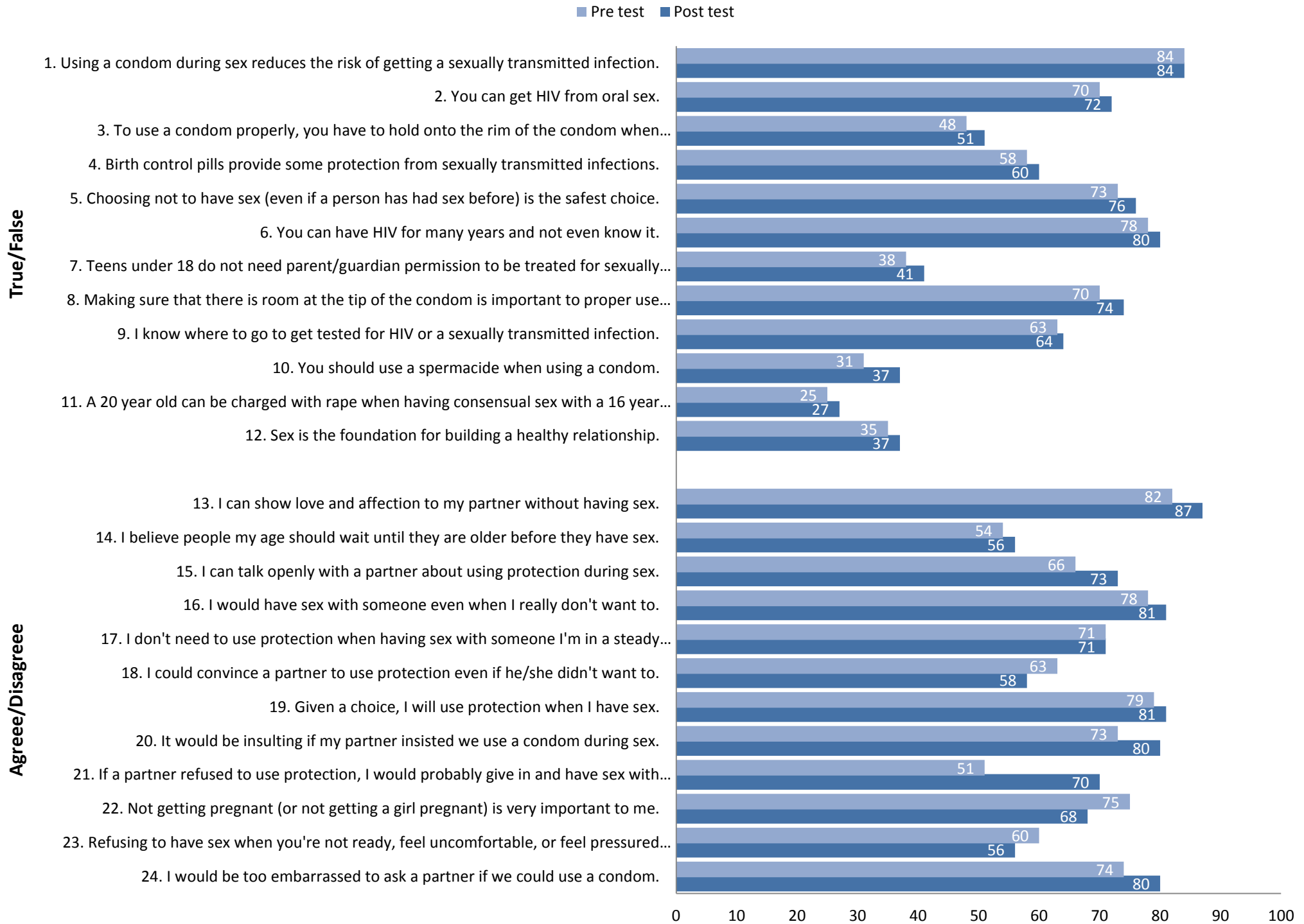
##### 10<sup>th</sup> Grade

Twenty-one (21) of the 24 questions asked showed improvement at post-test. This is 33% more improvement than the 9<sup>th</sup> grade scores. Question 21 showed the largest improvement (+19.0) while question 24 showed the least (-7.0). Again, there were several questions that had declines in score at post-test, and were most likely due to variance. Questions 7, 10, 11, and 12 did not test out as well as the rest of the questions. See Chart 2, page 7. Also see the Appendix for an unabbreviated question list.

## Chart 2: 9th Grade Evaluation Score % By Question



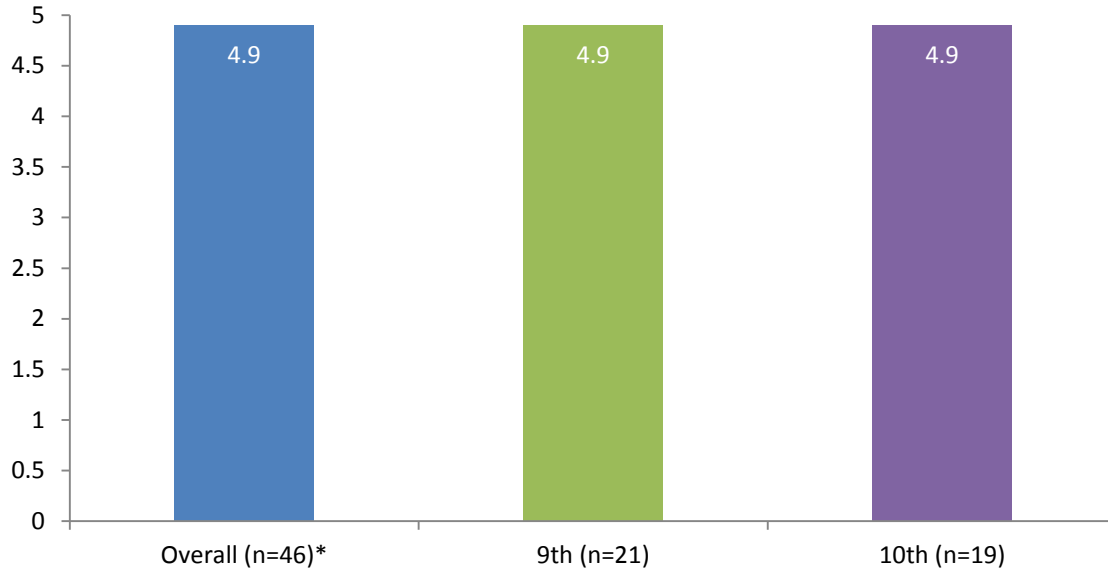
### Chart 3: 10th Grade Evaluation Score % By Question



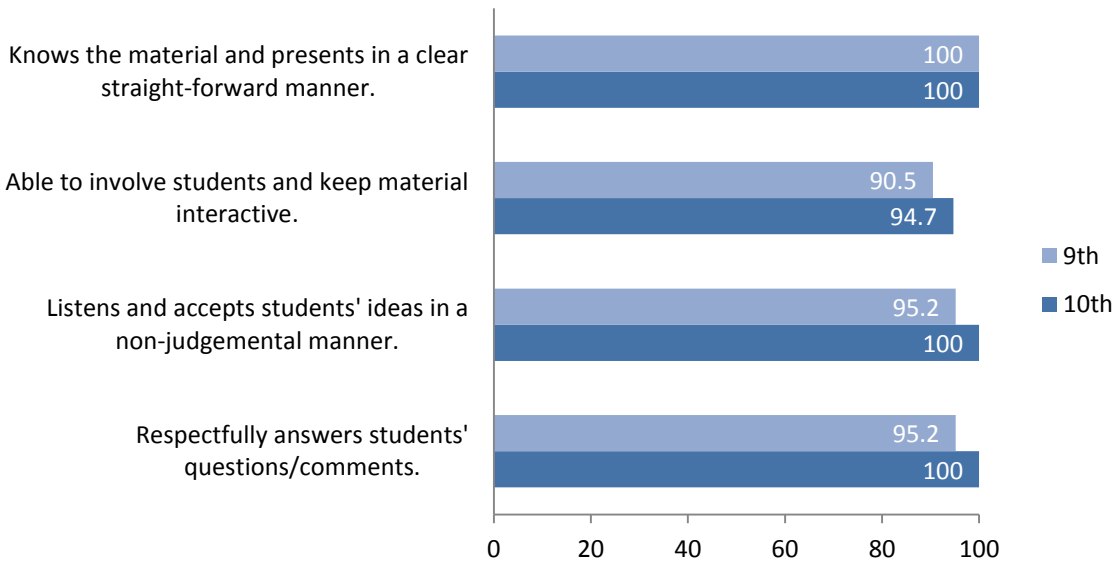




**Chart 3: Safer Choices - Satisfaction mean scores**



**Chart 4: Safer Choices satisfaction % per question**



### Wellness Schools – F.L.A.S.H. & Draw the Line

Four school districts consisting of 12 schools partook in the 1<sup>st</sup> half of the Wellness program (Table 1). All school districts participated in the F.L.A.S.H. program. Only Cleveland Heights-University Heights did not participate in the “Draw the Line” program. The 1<sup>st</sup> half evaluation consisted of a baseline test (pretest) at the beginning of the program before the material was taught and a curriculum test (posttest) once the students received all program information.

District	School	Grade(s)	Program(s)
CH-UH	Boulevard	5	F.L.A.S.H.
CH-UH	Nobel	5	F.L.A.S.H.
CH-UH	Oxford	5	F.L.A.S.H.
East Cleveland	Caledonia	5, 6	F.L.A.S.H.
East Cleveland	Chambers	5, 6	F.L.A.S.H.
East Cleveland	Mayfair	5, 6	F.L.A.S.H.
East Cleveland	Prospect	5, 6	F.L.A.S.H.
East Cleveland	Heritage	7, 8	Draw the Line
Euclid	Central	6, 7, 8	Both
Euclid	Forest Park	6, 7, 8	Both
SE-LYN	Greenview	5, 6	F.L.A.S.H.
SE-LYN	Memorial	7	Draw the Line

Over one thousand six hundred (1661) students participated in the first half of the Wellness program. F.L.A.S.H. had 861 students, and Draw the Line had 671 students. South Euclid-Lyndhurst had the largest populations of students (Table 2).

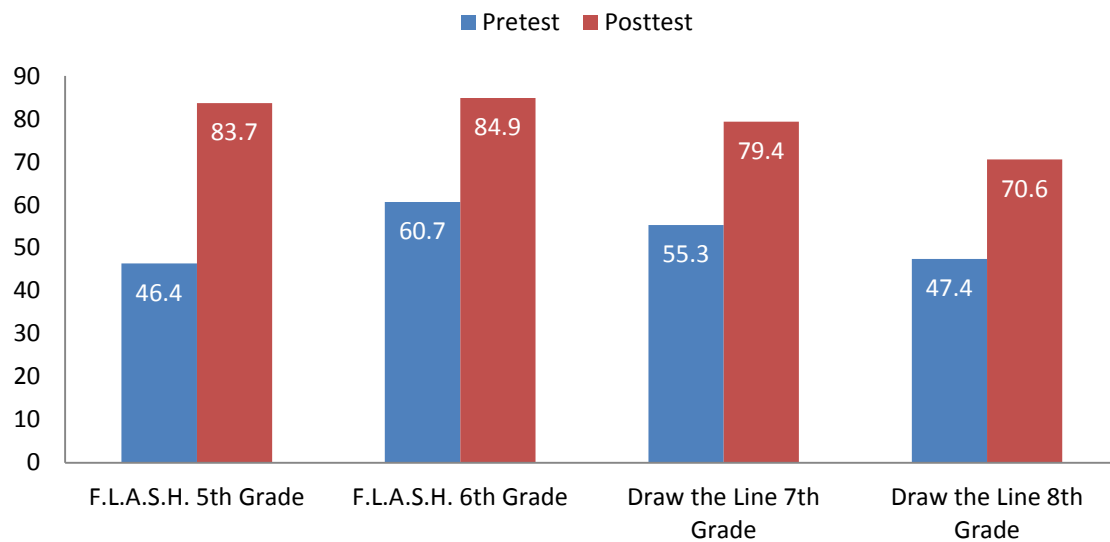
Program	Grade	N	CH-UH	E. Cleveland	Euclid	SE-LYN
F.L.A.S.H.	5 <sup>th</sup>	574	228	121	-	225
	6 <sup>th</sup>	416	-	124	61	231
Draw the Line	7 <sup>th</sup>	406	-	135	144	127
	8 <sup>th</sup>	265	-	108	157	-
Total	All	1661	99	408	362	583

### Program-level Evaluation

Both programs showed improvement at retest indicating that students began with minimal knowledge of the sex education curriculum and completed with large amount of information retention. This occurred with statistically significant confidence. F.L.A.S.H. 5<sup>th</sup> graders had the largest improvement followed by Draw the Line 8<sup>th</sup> graders, with F.L.A.S.H. 6<sup>th</sup> graders and Draw the Line 7<sup>th</sup> graders tied. Given the difference in population sizes for each participating grade, assumptions cannot be made regarding on grade’s improvement versus another’s. What is important to take away is that each grade improved substantially at post-test with statistically significant confidence (Table 3, Chart 5).

Table 3: Wellness Districts – F.L.A.S.H. & Draw the Line evaluation scores (all districts)						
	Pre-test N	Pre-test (%)	Post-test N	Post-test (%)	Mean change	p value (Sig.)
F.L.A.S.H. 5 <sup>th</sup> Grade	574	46%	558	84%	+38%	0.000
F.L.A.S.H. 6 <sup>th</sup> Grade	416	61%	371	85%	+24%	0.000
Draw the Line 7 <sup>th</sup> Grade	406	55%	380	79%	+24%	0.000
Draw the Line 8 <sup>th</sup> Grade	265	47%	233	71%	+25%	0.000

**Chart 5: F.L.A.S.H. & Draw the Line evaluation scores (all districts)**



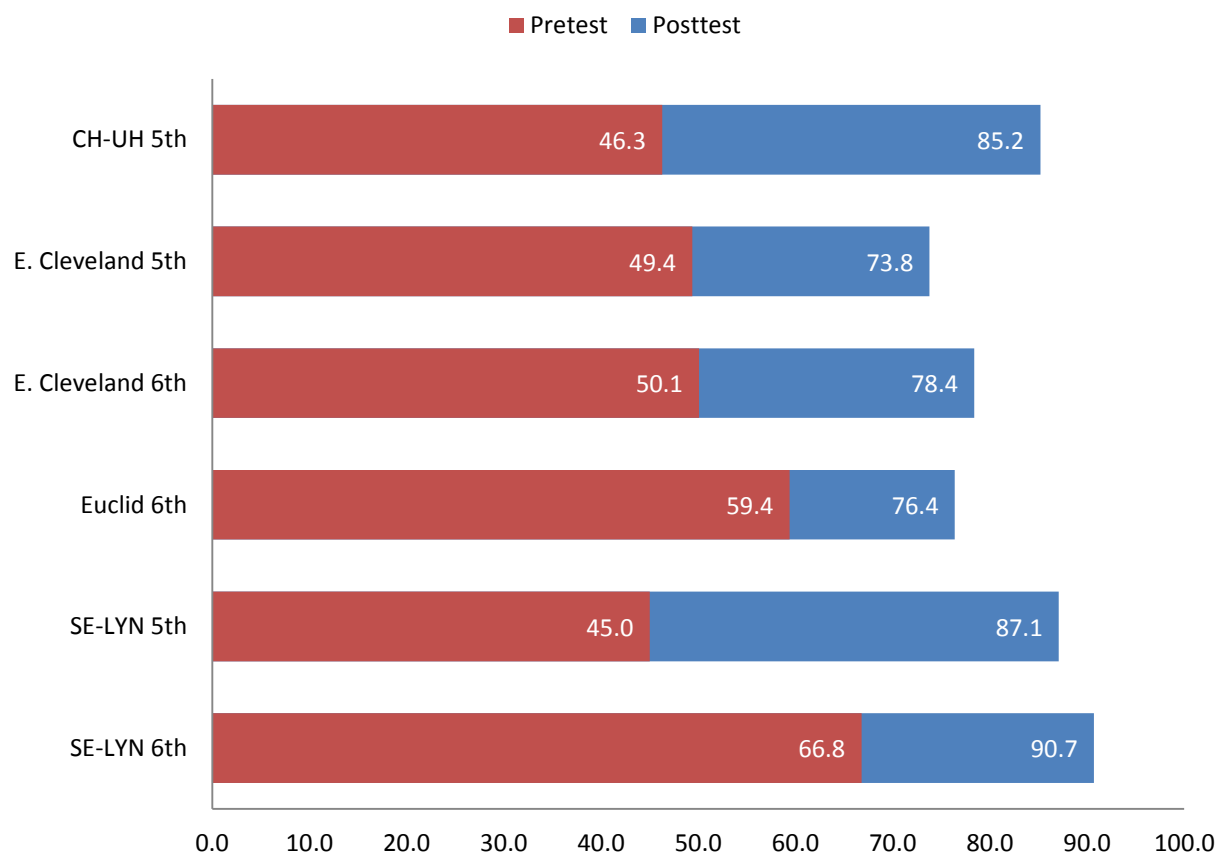
### *Grade-level Evaluation*

#### **F.L.A.S.H.**

Improvements were seen at post-test for each district and each grade with statistical significant confidence. The largest improvement was seen in the Cleveland Heights-University Heights schools 5<sup>th</sup> grade, while the smallest improvement occurring in the Euclid schools 6<sup>th</sup> grade (see Table 4, page 12). South Euclid-Lyndhurst 6<sup>th</sup> graders obtained the highest scores, and Euclid 6<sup>th</sup> graders had the lowest. All districts were above 70% at post-test. Furthermore, all districts that implemented F.L.A.S.H. for consecutive grades showed improvement from 5<sup>th</sup> to 6<sup>th</sup> grade. This suggests knowledge was retained from the previous school year (see Chart 6).

Table 4: F.L.A.S.H. evaluation scores by District							
District	Grade	Pre-test N	Pre-test (%)	Post-test N	Post-test (%)	Mean change	p value (Sig.)
CH-UH	5 <sup>th</sup>	228	46%	229	85%	+39%	0.000
E. Cleveland	5 <sup>th</sup>	121	49%	107	74%	+25%	0.000
	6 <sup>th</sup>	124	50%	108	78%	+28%	0.000
Euclid	6 <sup>th</sup>	61	59%	57	76%	+15%	0.000
SE-LYN	5 <sup>th</sup>	225	45%	221	87%	+32%	0.000
	6 <sup>th</sup>	231	67%	206	91%	+24%	0.000

**Chart 6: F.L.A.S.H. evaluation scores by District**

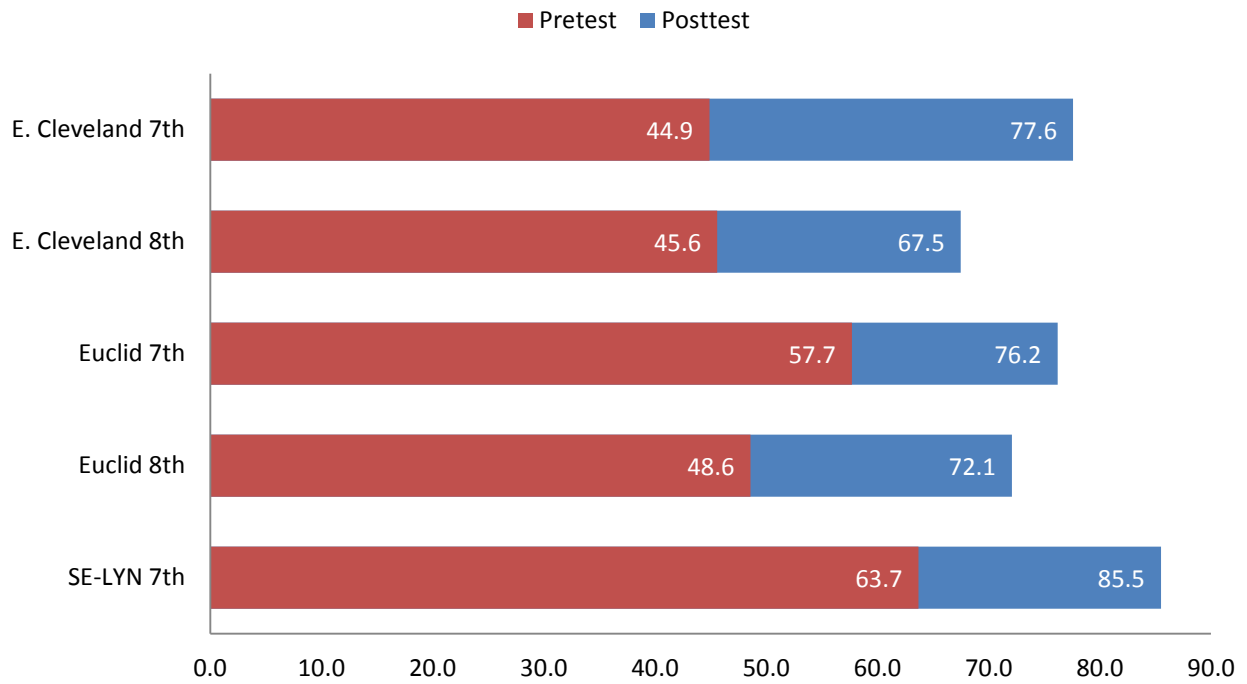


**Draw the Line**

While there were less students participating in Draw the Line compared to F.L.A.S.H. results were still notable with all districts and grades improving at post-test. East Cleveland 7<sup>th</sup> graders had the largest improvement and Euclid 7<sup>th</sup> graders had the least improvement. Interestingly, 8<sup>th</sup> graders in East Cleveland and Euclid had lower outcome scores than their 7<sup>th</sup> grade peers. All results were statistically significant in confidence (see Table 5, Chart 7, page 13).

Table 5: Draw the Line evaluation scores							
District	Grade	Pre-test N	Pre-test (%)	Post-test N	Post-test (%)	Mean change	p value (Sig.)
E. Cleveland	7 <sup>th</sup>	135	45%	121	78%	+33%	0.000
	8 <sup>th</sup>	108	46%	78	67%	+21%	0.000
Euclid	7 <sup>th</sup>	144	58%	145	76%	+18%	0.000
	8 <sup>th</sup>	157	49%	155	72%	+23%	0.000
SE-LYN	7 <sup>th</sup>	127	64%	114	85%	+21%	0.000

**Chart 7: Draw the Line evaluation scores by District**



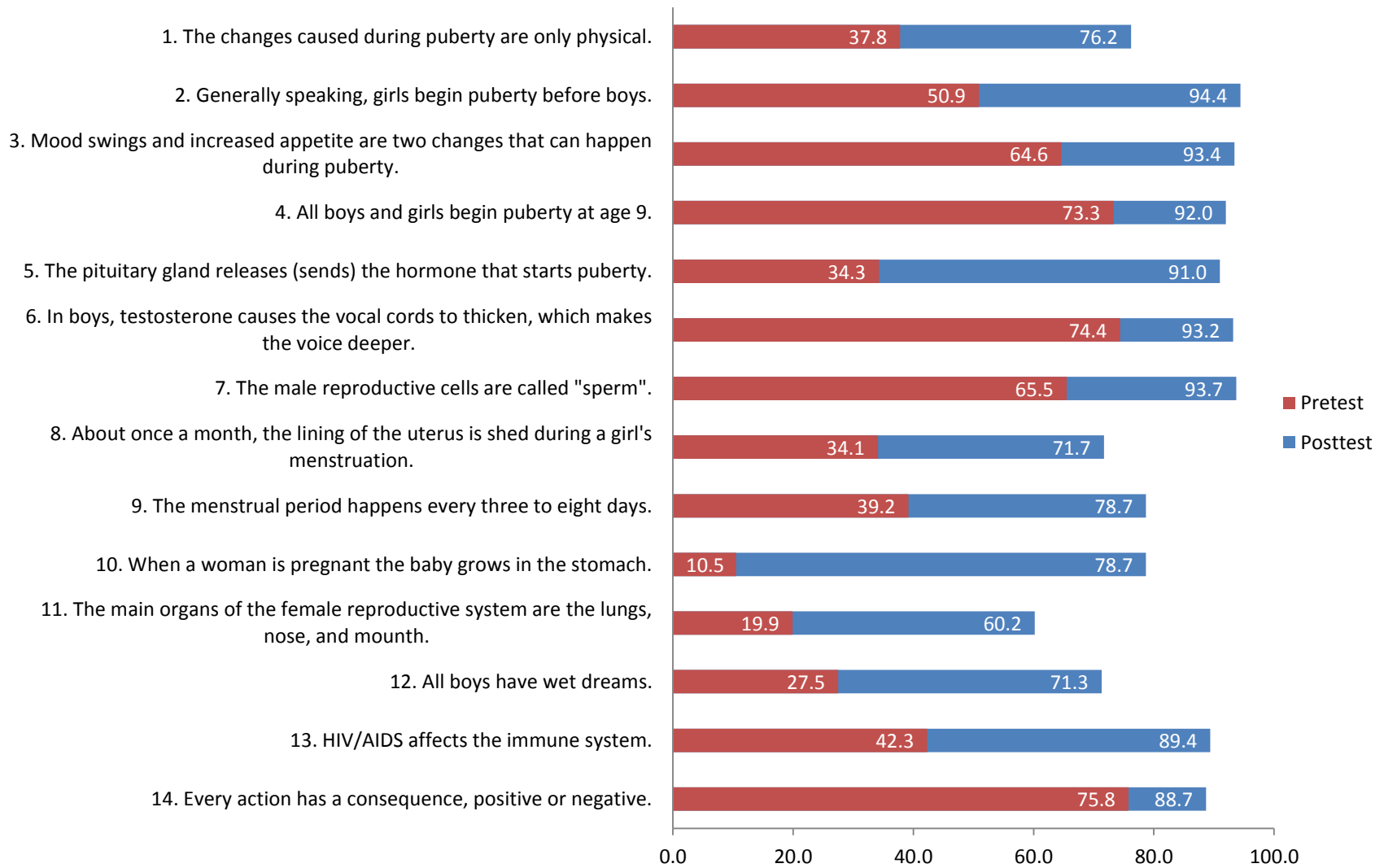
### *Question-level Evaluation*

#### **F.L.A.S.H.**

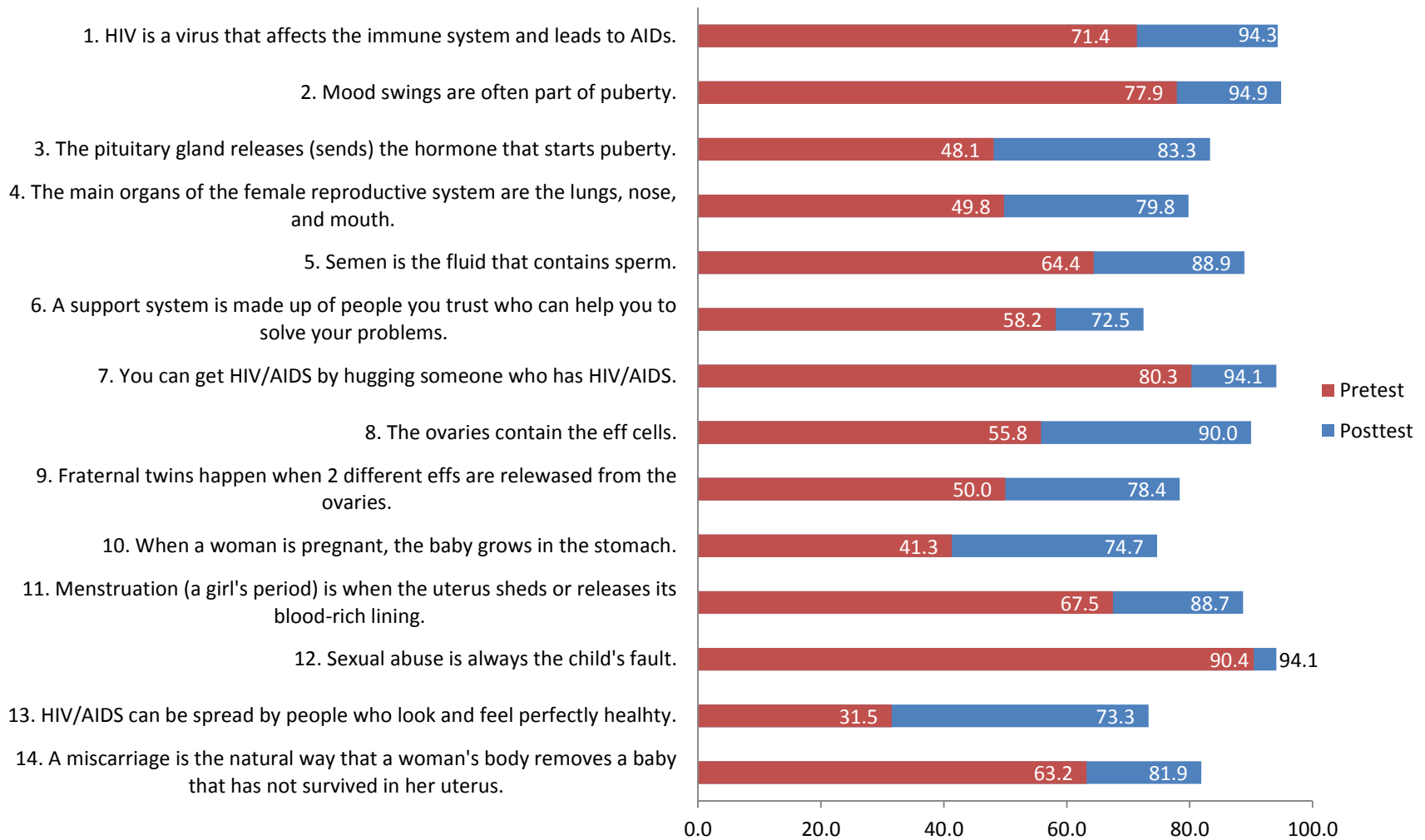
The evaluation also examined improvement by each question. F.L.A.S.H. 5<sup>th</sup> graders showed large improvements from pre-test to post-test. The most notable of these was question #10 with a mean change of +68%. The least improvement was for question #14 with a mean change of +13%. However, the pre-test score of 76% was the highest recorded percentage at pre-test among questions. Therefore it is possible that with since the majority of students attained this knowledge prior to the program, fewer students needed to acquire this at post-test, which could explain the small growth (see Chart 8.)

Although, F.L.A.S.H. 6<sup>th</sup> graders did not reach outcome scores as large as the 5<sup>th</sup> graders, all questions showed improvement at post-test. This makes sense given the likelihood that many of these students participated in F.L.A.S.H. at the 5<sup>th</sup> grade level; receiving similar information. The largest mean change occurred for question #13 with an improvement of +42%. The smallest change occurred for question #12 with an improvement of +4%; however the average pre-test score was 90% (see Chart 9).

**Chart 8: F.L.A.S.H. 5th Grade evaluation scores by question**



**Chart 9: F.L.A.S.H. 6th Grade evaluation scores by question**



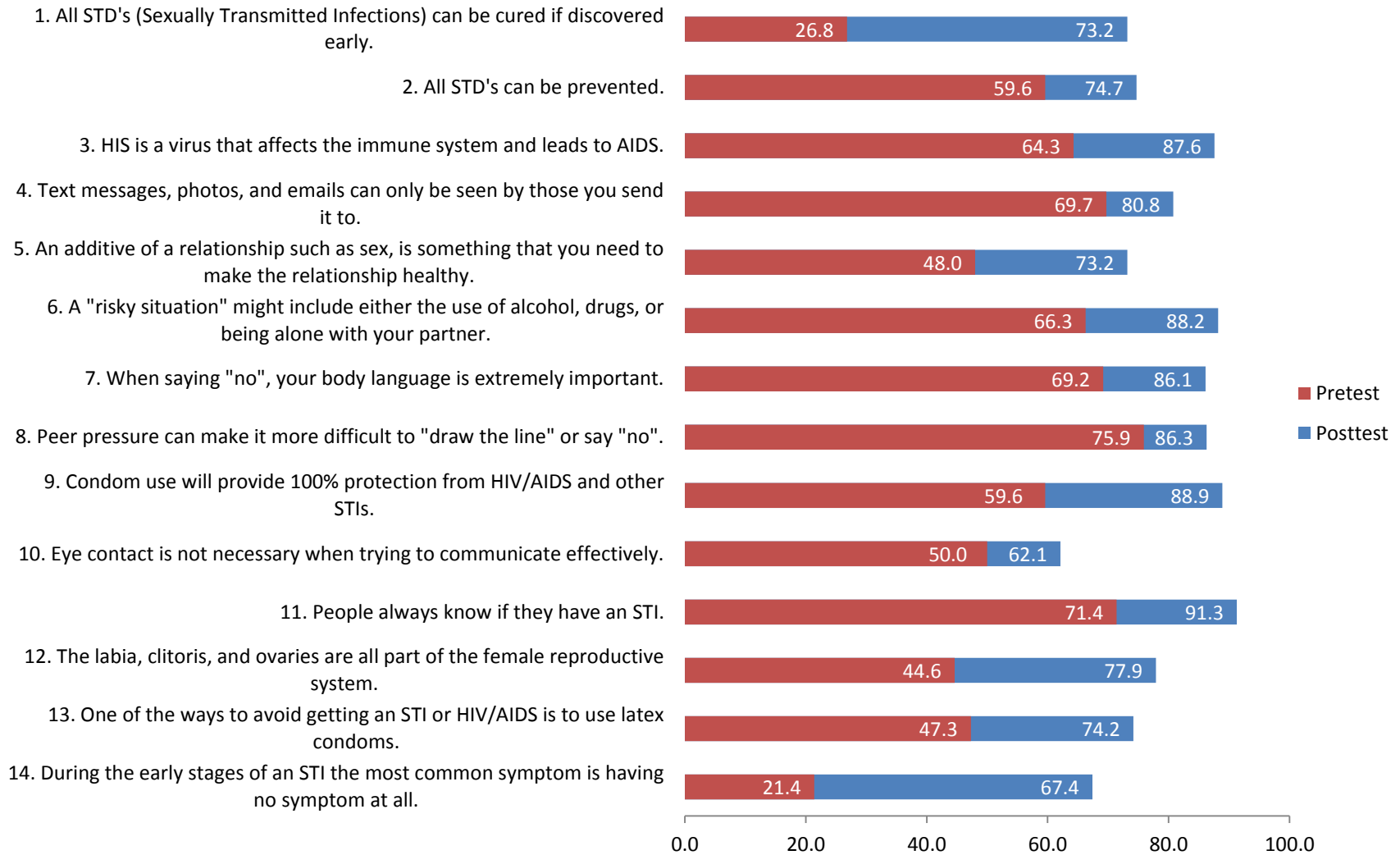


### Draw the Line

Draw the Line 7<sup>th</sup> graders showed improvements for each question. The magnitude of improvement varied, with low and high pre-test and low and high post-test scores. For example, question #8 had a high pre-test average and only improved 10% at post-test; however question #10 had a much lower pre-test average and improved similarly with 12%. Questions with very low average pre-tests showed the largest improvements (i.e. #1 & 14). The highest post-test score was 91% and the lowest score was 62%. In short, it appears that while students improved on each question, there were topics that they understood better than others (see Chart 10, page 18).

Draw the Line 8<sup>th</sup> graders showed improvement for each question as well. Again, the magnitude of improvement varied, with low and high pre-test and low and high post-test scores. The highest post-test score was 94% (#3), and the lowest was 48% (#8). Some of the score differences between the 7<sup>th</sup> and 8<sup>th</sup> grade populations could be due to different test questions and the smaller n-size for 8<sup>th</sup> grade (140 students smaller) (see Chart 11, page 19).

**Chart 10: Draw the Line 7th Grade evaluation scores by question**



**Chart 11: Draw the Line 8th Grade evaluation scores by question**



## Program Satisfaction

### Students

A total of 1241 students provided satisfaction surveys for analysis. Results are reported for students that were satisfied (4) and mostly satisfied (5). Students were highly satisfied with the program across all grades with 5<sup>th</sup> grade showing the most satisfaction and 8<sup>th</sup> showing the least. Each grade had satisfaction levels for each question greater than 75%. Students were most in agreement regarding subject matter and having their thoughts and ideas accepted (see Table 6 and Chart 12 on page 21).

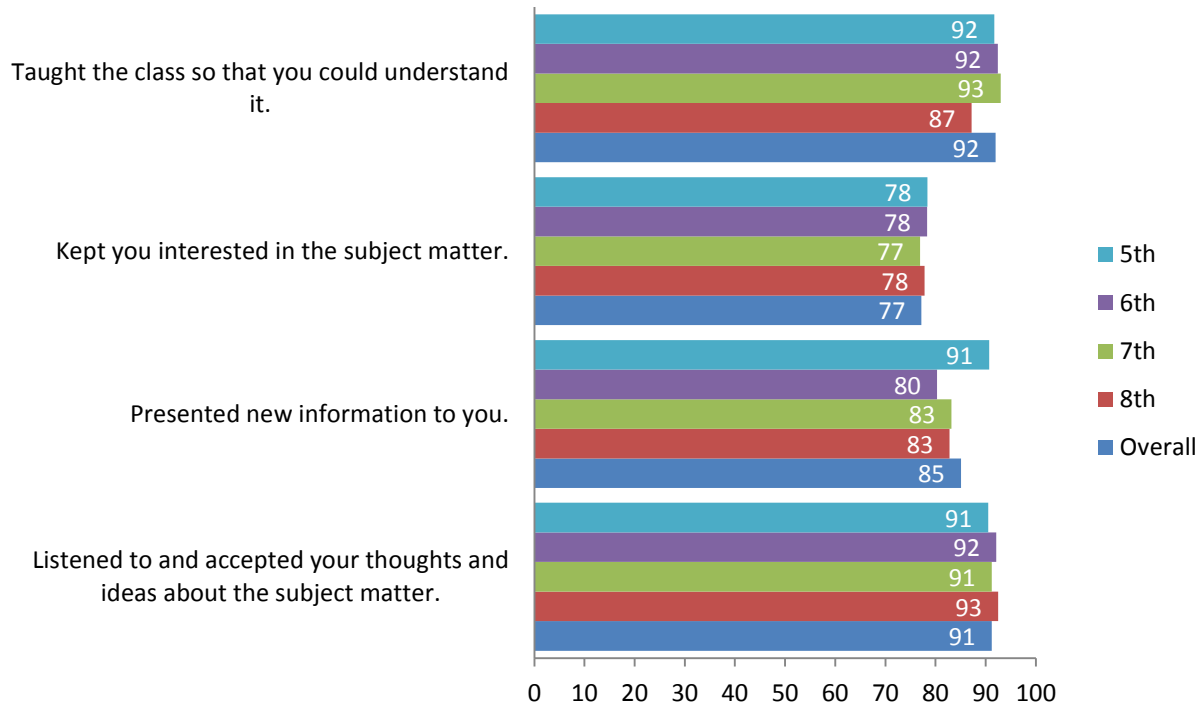
There were 1830 responses to the question, “What do you think is the most important thing learned?” Of these responses the most common centered on contraction of and protection from HIV/AIDS and other sexually transmitted diseases, puberty, and human reproduction.

There were 1562 responses to the question, “How would you change the program? Of these responses the most common centered on dividing the class by gender, making the program longer, adding more videos, showing less videos, and changing nothing.

<b>Table 6: Satisfaction Survey Numbers</b>		
Grade	Student	Teacher
5	468	21
6	358	13
7	318	2
8	93	1
Total	*1241	37

\*4 surveys were missing grade level

**Chart 12: Student satisfaction % by grade**



**Teachers**

A total of 37 teachers provided satisfaction surveys for analysis, with the majority having been submitted by 5<sup>th</sup> grade F.L.A.S.H. schools (see Table 5). Results are reported for teachers that were satisfied (4) and mostly satisfied (5). Teachers were highly satisfied with the program, providing ratings of 100% (see Table 6, Chart 13 on page 22).

There were 35 comments for “What do you think is the most important thing your students learned?” The most common response was awareness of human sexual development, human reproduction, the importance of cleanliness, and sexual responsibility.

There were 26 comments for “What do you think your students need more information on?” The most common response was information on anatomy and bodily changes, consequences of STDs, personal hygiene, respecting personal boundaries and saying “no”, and nothing.



## Appendix

### Safer Choices Questions List

#### 9<sup>th</sup> Grade True/False

1. Using a condom during sex reduces the risk of getting a sexually transmitted infection.
2. You can get HIV from oral sex.
3. Bacterial STD's/STI's (Chlamydia, Gonorrhea, & Syphilis) can be cured.\*
4. Birth control pills provide some protection from sexually transmitted infections.
5. Choosing not to have sex (even if a person has had sex before) is the safest choice.
6. You can have HIV for many years and not even know it.
7. Teens under 18 do not need parent/guardian permission to be treated for sexually transmitted infections at most health clinics.
8. HIV can be transmitted through blood, vaginal fluid, urine, & saliva.\*
9. I know where to go to get tested for HIV or a sexually transmitted infection.
10. Extreme jealousy & stalking are signs of love and affection.\*
11. Everyone my age is having sex.\*
12. When saying NO to sex, one's body language and verbal expression should match one another.\*

*\*Question not the same for both grades.*

#### 10<sup>th</sup> Grade True/False

1. Using a condom during sex reduces the risk of getting a sexually transmitted infection.
2. You can get HIV from oral sex.
3. To use a condom properly, you have to hold onto the rim of the condom when pulling out.\*
4. Birth control pills provide some protection from sexually transmitted infections.
5. Choosing not to have sex (even if a person has had sex before) is the safest choice.
6. You can have HIV for many years and not even know it.
7. Teens under 18 do not need parent/guardian permission to be treated for sexually transmitted infections at most health clinics.
8. Making sure that there is room at the tip of the condom is important to proper use of a condom.\*
9. I know where to go to get tested for HIV or a sexually transmitted infection.
10. You should use a spermicide when using a condom.\*
11. A 20 year old can be charged with rape when having consensual sex with a 16 year old.\*
12. Sex is the foundation for building a healthy relationship.\*

*\*Question not the same for both grades.*

#### 9<sup>th</sup>/10<sup>th</sup> Grade Agree/Disagree

13. I can show love and affection to my partner without having sex.
14. I believe people my age should wait until they are older before they have sex.
15. I can talk openly with a partner about using protection during sex.
16. I would have sex with someone even when I really don't want to.
17. I don't need to use protection when having sex with someone I'm in a steady relationship with.

18. I could convince a partner to use protection even if he/she didn't want to.
19. Given a choice, I will use protection when I have sex.
20. It would be insulting if my partner insisted we use a condom during sex.
21. If a partner refused to use protection, I would probably give in and have sex with him/her.
22. Not getting pregnant (or not getting a girl pregnant) is very important to me.
23. Refusing to have sex when you're not ready, feel uncomfortable, or feel pressured shows self-respect.
24. I would be too embarrassed to ask a partner if we could use a condom.

\*Question not the same for both grades.