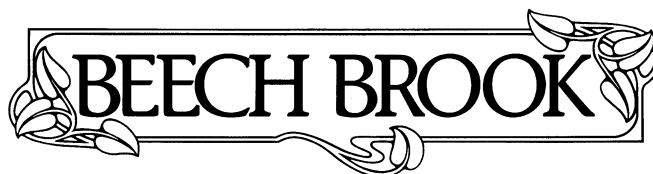


**Comprehensive Sex Education Evaluation Report**  
**Cuyahoga County Board of Health Programs**  
**2011-2012 School Year**

**This program is brought to you by the Cuyahoga County Board of Health's  
Teen Wellness Initiative thanks to funding provided by the  
Cuyahoga County Family and Children First Council on behalf of the  
Cuyahoga County Office of Health and Human Services**



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## Executive Summary

This report evaluates Beech Brook's Comprehensive Sex Education (CSE) programs under the Cuyahoga County Board of Health contract for the 2011-2012 school year. Beech Brook evaluated services provided in eight of the nine districts where comprehensive sexual health programming was implemented. Evaluation districts included: Bedford, Brooklyn, Cleveland Heights/University Heights, Richmond Heights, East Cleveland, Euclid, Warrensville Heights, and South Euclid/Lyndhurst. During the 2011-2012 school year, a total of 6,569 5<sup>th</sup> through 8<sup>th</sup> grade students completed programming with 4,559 of those students participating in the program evaluation.

Three strategies were used to evaluate the program:

1. Tests were administered before and after each curriculum to measure learning. *F.L.A.S.H.* curriculums were taught in 5<sup>th</sup> and 6<sup>th</sup> grade and *Draw the Line* curriculums were taught in 7<sup>th</sup> and 8<sup>th</sup> grade.
2. Evaluation surveys were completed by students, classroom teachers, and parents after the program to assess satisfaction and opportunities for improvement.
3. Classroom observations were held to support model fidelity.

Key findings of the evaluation include:

1. Overall test scores for students improved after the *F.L.A.S.H.* and *Draw the Line* curriculums. These improvements were statistically significant ( $p < 0.001$ ) for all districts and grade levels.
2. Students were highly satisfied with the program and instructor. Student satisfaction was highest (94.1%) with the class being taught so that they could understand it.
3. Teachers rated the CSE program very positively this year, with 98% to 99% reporting satisfaction on each survey question.
4. Facilitator observations showed 96-100% compliance with model standards and other expectations.

Overall, this evaluation report suggests 1) that Beech Brook succeeded in teaching students the *F.L.A.S.H.* and *Draw the Line* curriculums and 2) that students were satisfied with the program. The findings of this evaluation support the program need and efficacy.

## **Program Introduction and Background**

### **School-based comprehensive sexual health education:**

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

### **Cuyahoga County Board of Health – Agency History:**

Since 1919, the Cuyahoga County Board of Health (CCBH) has successfully implemented large-scale health promotion programs for the diverse and multi-cultured Northeastern Ohio population guided by a mission to *prevent disease and injury, promote positive health outcomes and provide critical services to improve the health status of the community*. All of CCBH's activities are clearly and directly tied to its Organizational Vision, *to optimize the public health status of the community through transformational programming that creates a clear line of sight between what we do every day and how the organization performs*.

In 1997, CCBH began coordinating teen pregnancy prevention activities throughout Cleveland and its inner-ring suburbs through its Teen Wellness Initiative. The Primary objectives of the Teen Wellness Initiative are:

- Provide youth with the necessary information, motivation, and behavioral skills to make informed choices about their sexual and reproductive health
- Provide parents/guardians with a variety of tools that promote increased communication with their teens
- Increase access to adolescent health services
- Develop policies that incorporate and support public health principles

One aspect of the programming that falls under the Teen Wellness Initiative at CCBH is the administration of school-based comprehensive sexual health education programming. With the ultimate goal of reducing one or more sexual behaviors that lead to unintended pregnancy and STDs/STIs, comprehensive sexual health programming provides young people with the information and skills that will enable them to make sound decisions now and in the future.

Thanks to funding provided by the Cuyahoga County Family and Children First Council, CCBH contracted with Beech Brook during the 2011-2012 grant year to provide comprehensive sexual health programming to a total of 6568 5<sup>th</sup>-8<sup>th</sup> grade students throughout nine inner-ring school districts. Eight of the nine partnering school districts participated in the program evaluation outlined in this report.

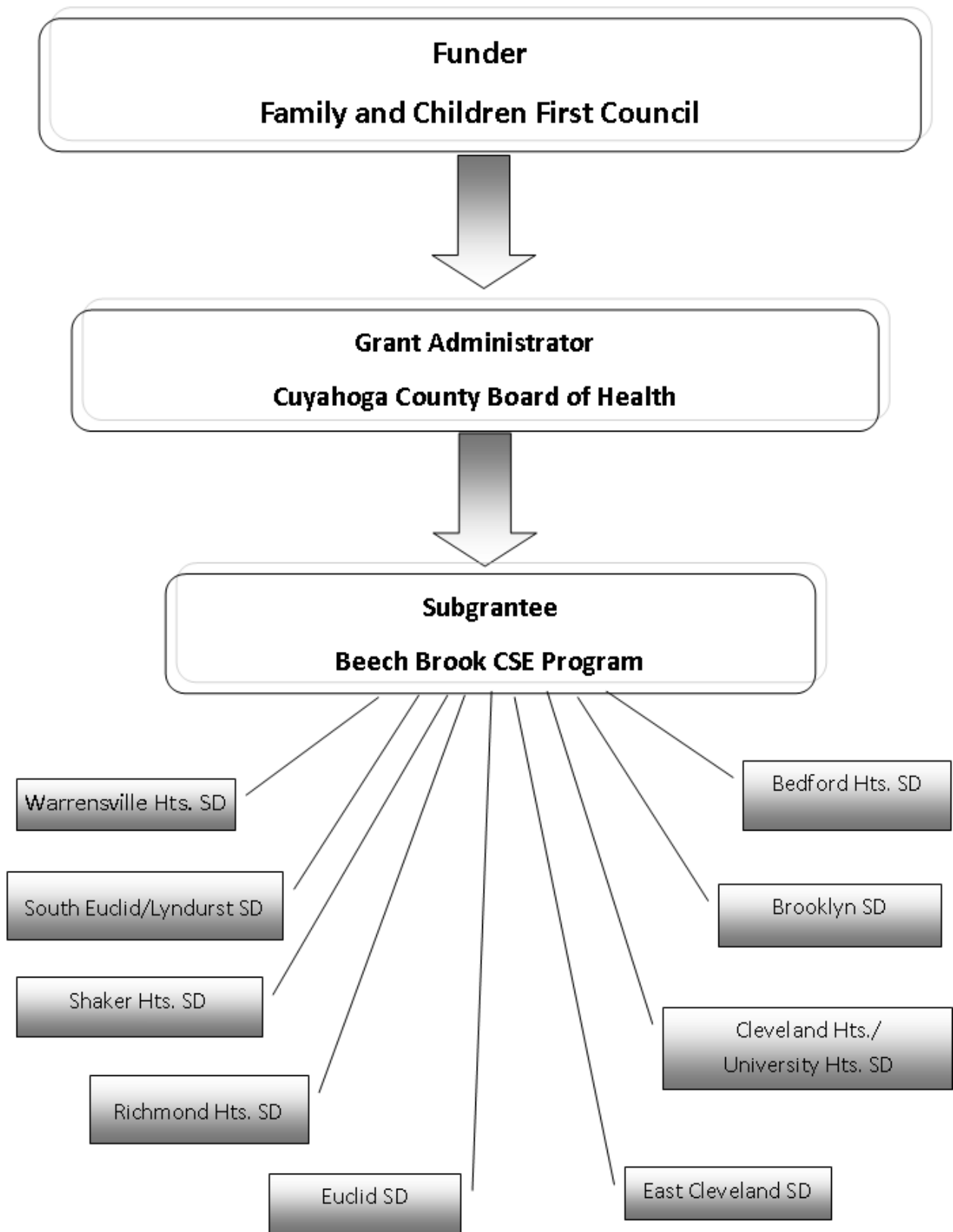
### **Beech Brook - Agency History:**

Founded in 1852, Beech Brook's mission statement is "To advance the emotional well-being of children, youth and their families by providing effective, innovative behavioral health, permanency and educational services and by serving as a strong voice for children, youth, and families." Beech Brook serves children, youth, and families in Cuyahoga, Lorain, Summit and Geauga counties. Beech Brook is accredited by the Council on Accreditation and the Joint Commission on Accreditation of Healthcare Organizations and is licensed by the Ohio Department of Human Services and the Ohio Department of Mental Health.

Beech Brook's Family Health division offers a wide range of school-based, in-home and community-based programs designed to strengthen and support families and children. Under this division, Beech Brook coordinates parenting and support groups offered throughout the county as well as Early Start services for at-risk children. Important components to all Family Health programs are the respect for families, the importance of honoring cultural diversity, and a working partnership with families and their communities.

For over fifty years, Beech Brook has provided sexual-health programming through their Comprehensive Sex Education (CSE) division to school-aged youth throughout Cuyahoga County. Today, as part of the Teen Wellness Initiative, Beech Brook educators provide modified versions of two evidence-based sexual health curricula to 5<sup>th</sup>-8<sup>th</sup> grade students throughout the following partnering school districts: Bedford Heights, Brooklyn, Cleveland Heights / University Heights, East Cleveland, Euclid, Richmond Heights, Shaker Heights, South Euclid/Lyndhurst, and Warrensville Heights.

**Program Flow Chart:**



SD-School District

## **2011-2012 Evidence-Based Sexual Health Curricula**

Two evidence-based sexual health curricula, *Family Life And Sexual Health* (F.L.A.S.H.) and *Draw the Line / Respect the Line*, were used throughout the targeted school districts during the 2011-2012 grant year. These curricula were chosen based on their recognition as evidence-based programs that work by national organizations considered to be the authorities on teen pregnancy prevention. These organizations include: The National Campaign to Prevent Teen and Unplanned Pregnancy, Mathematica Policy Research, the Centers for Disease Control and Prevention (CDC), and SIECUS (Sexuality Information and Education Council of the United States).

National evaluation results from the *F.L.A.S.H.* curriculum showed an increase in students' knowledge and improved attitudes about such things as puberty (less fear, more confidence) and sexual exploitation (their confidence in their ability to say "no" and tell a trusted adult). Results from the *Draw the Line / Respect the Line* curriculum showed increased knowledge and improved perceptions of peer norms about sex and delayed initiation of sex among males.

The curricula were modified so that the lessons could be taught in the district classrooms over a two year period. The lessons included in the curricula include a wide range of topics related to sexual and reproductive health. The following two pages provide a brief outline of each program.

### *F.L.A.S.H. (Family Life And Sexual Health)*

The *F.L.A.S.H.* curriculum is an evidence-based comprehensive sexual health education curriculum designed by Public Health – Seattle & King County, Family Planning Program.

#### Goal of the *F.L.A.S.H.* Curriculum

The goals of *F.L.A.S.H.* are to assist in the development of persons:

- Who are knowledgeable about human development and reproduction
- Who respect and appreciate themselves, their families, and all persons
- Who will neither exploit others nor allow themselves to be exploited

#### Overview of the *F.L.A.S.H.* Curriculum

This curriculum consists of 19 lesson plans for the intermediate classroom (grades four through six). *F.L.A.S.H.* is based on a behavior change theory called the Health Belief Model. The curriculum addresses:

- Perceived Susceptibility
- Perceived Severity
- Perceived Benefits
- Perceived Barriers
- Self-Efficacy

#### Local Implementation

Beech Brook and CCBH have modified this evidence-based curriculum to a twenty session delivery plan divided evenly over a two year period. The specific topics covered throughout each grade are as follows:

Fifth Grade: Ten-session delivery including the following topics / themes:

- Self Esteem
- Family / Friendship
- Decision Making
- Consequences
- HIV/AIDS
- Puberty
- Reproduction
- Pregnancy
- Sexual Exploitation

Sixth Grade: Ten-session delivery including the following topics / themes:

- Decision Making
- Behaviors / Consequences
- Puberty
- Conception
- Pregnancy
- Childbirth
- HIV/AIDS
- Support Systems
- Personal Safety



## **DRAW THE LINE / RESPECT THE LINE**

*Draw the Line/Respect the Line* is an evidence-based sexual health curriculum created by the University of California, San Francisco Center for AIDS Prevention Studies and ETR Associates to help students develop personal sexual limits and practice the skills needed to maintain those limits.

### Goal of the *Draw the Line / Respect the Line* Curriculum

The curriculum is designed to help students achieve five objectives:

- To know their personal sexual limit
- To identify their motivation for that limit
- To identify threats to their limit
- To use interpersonal skills to maintain their sexual limit
- To respect the limits of others

### Overview of the Curriculum

This curriculum consists of 19 lesson plans for middle school students (grades six through eight). Using group discussions, small group activities, and role playing, the program aims to delay the initiation of sex in order to reduce the incidence of STDs, including HIV/AIDS and pregnancy. The program uses social cognitive theory and social inoculation theory based on the assumption that knowledge and constant skill practice can influence risk-taking behaviors.

### Local Implementation

Beech Brook and CCBH have modified this evidence-based curriculum to a twenty session delivery plan divided evenly over a two-year period. The specific topics covered throughout each grade are as follows:

Seventh Grade: Ten-session delivery including the following topics / themes:

- |                       |                          |
|-----------------------|--------------------------|
| • Reproductive Health | • HIV/AIDS               |
| • Teen Pregnancy      | • Healthy Relationships  |
| • Decision Making     | • Goals and Consequences |
| • Sexual Pressures    | • Sexual Exploitation    |
| • STI/STDs            |                          |

Eighth Grade: Ten-session delivery including the following topics / themes:

- |                          |                       |
|--------------------------|-----------------------|
| • Healthy Relationships  | • STIs/STDs           |
| • Reproductive Health    | • Teen Pregnancy      |
| • Risk Taking Behavior   | • HIV/AIDS            |
| • Goals and Consequences | • Sexual Exploitation |

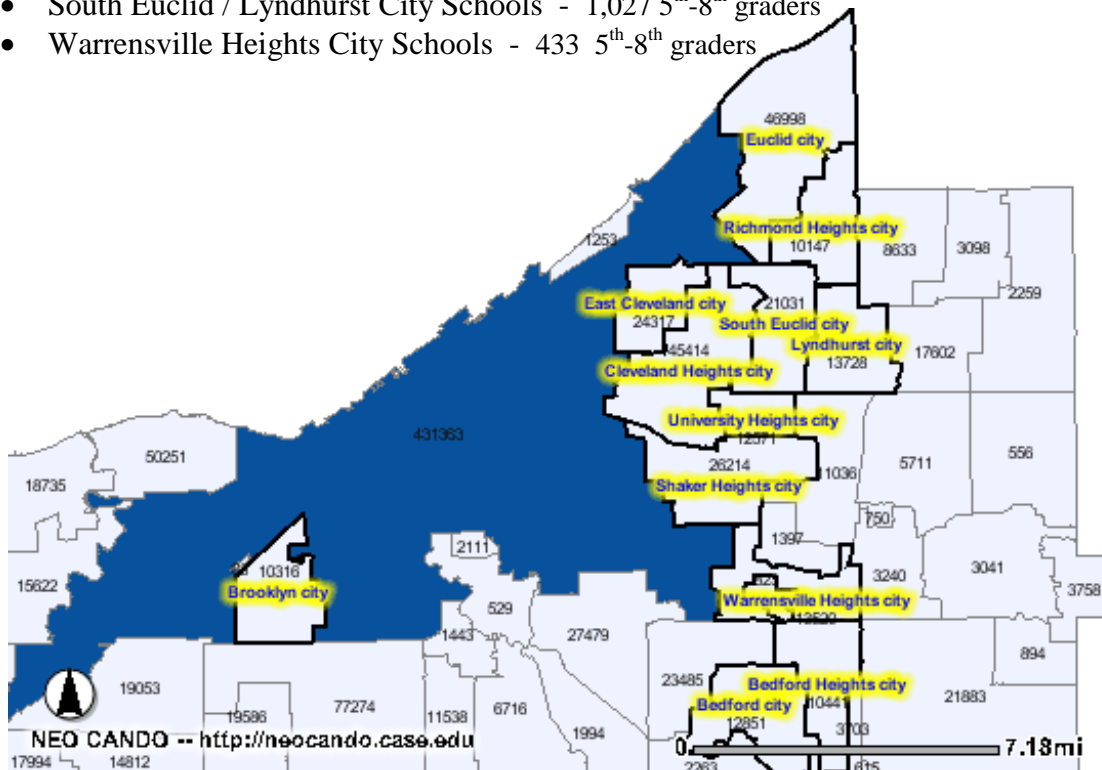
## Targeted School Districts for the 2011/2012 Initiative

With funding provided by the Cuyahoga County Family and Children First Council (FCFC), CCBH worked to target the inner-ring school districts of the county for the school-based program component of the Teen Wellness Initiative. Schools who agreed to partner with CCBH were provided with free classroom curricula delivered by Beech Brook as well as parent education programming and resource assistance for their district. Participating school districts were required to sign a letter of agreement with the Cuyahoga County Board of Health stating that:

- The District agrees to work with Beech Brook and provide only evidence-based comprehensive sexual health education programming to the students of their district.
- The District agrees to allow Beech Brook into their schools and will assist them with program scheduling as needed.

After approaching several inner-ring school districts throughout the county, CCBH and Beech Brook solidified partnerships with the nine districts listed below and were able to serve a total of 6568 5<sup>th</sup> through 8<sup>th</sup> grade students throughout the 2011/2012 grant year.

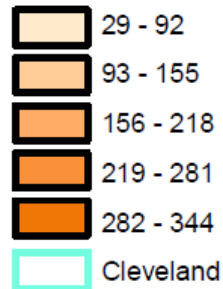
- Bedford City School District - 969 5<sup>th</sup>-8<sup>th</sup> graders
- Brooklyn City School District - 129 8<sup>th</sup> graders
- Cleveland Heights / University Heights City School District - 1,220 5<sup>th</sup>-8<sup>th</sup> graders
- East Cleveland City Schools - 775 5<sup>th</sup>-8<sup>th</sup> graders
- Euclid City Schools - 1,522 5<sup>th</sup>-8<sup>th</sup> graders
- Richmond Heights Local Schools - 293 5<sup>th</sup>-8<sup>th</sup> graders
- Shaker Heights City School District - 200 7<sup>th</sup>-8<sup>th</sup> graders
- South Euclid / Lyndhurst City Schools - 1,027 5<sup>th</sup>-8<sup>th</sup> graders
- Warrensville Heights City Schools - 433 5<sup>th</sup>-8<sup>th</sup> graders



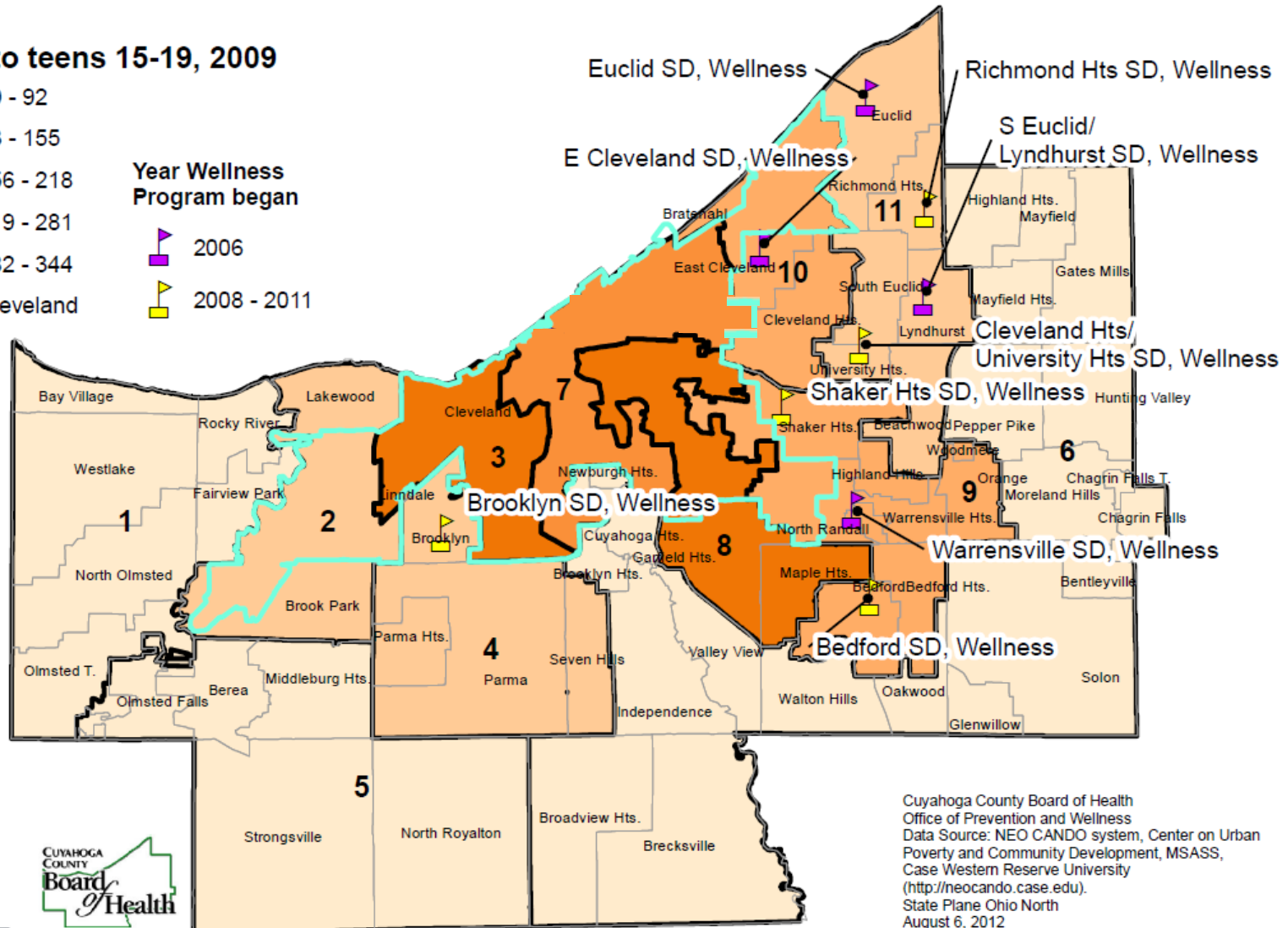
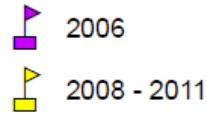
## Births to Teens 15-19, 2009

The map below demonstrates teen births by district council for the cities of the targeted school districts in Cuyahoga County.

### Births to teens 15-19, 2009



### Year Wellness Program began



Cuyahoga County Board of Health  
 Office of Prevention and Wellness  
 Data Source: NEO CANDO system, Center on Urban  
 Poverty and Community Development, MSASS,  
 Case Western Reserve University  
 (<http://neocando.case.edu>).  
 State Plane Ohio North  
 August 6, 2012



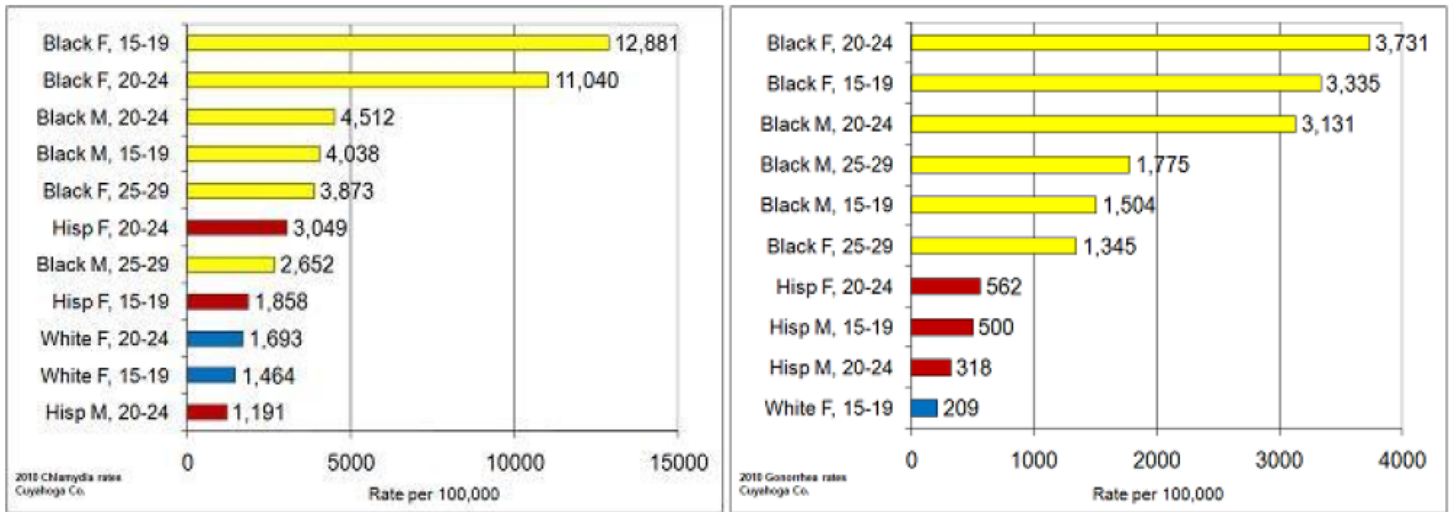
Northeast Ohio Public Health Partnership PREVENT • PROMOTE • PROVIDE™

## STD Rates for Teens: Chlamydia & Gonorrhea

Youth also represent the highest rates of Chlamydia and Gonorrhea infections in Cuyahoga County with approximately 42.9% of all Chlamydia and 34.2% of all Gonorrhea cases reported among 15-19 year olds.

East Cleveland had the highest Chlamydia rates in Cuyahoga County, followed by Cleveland, Warrensville Heights, and Maple Heights. Municipalities with elevated rates for Chlamydia were observed in Woodmere, North Randall, Highland Hills, Euclid, Bedford Heights and Oakwood.

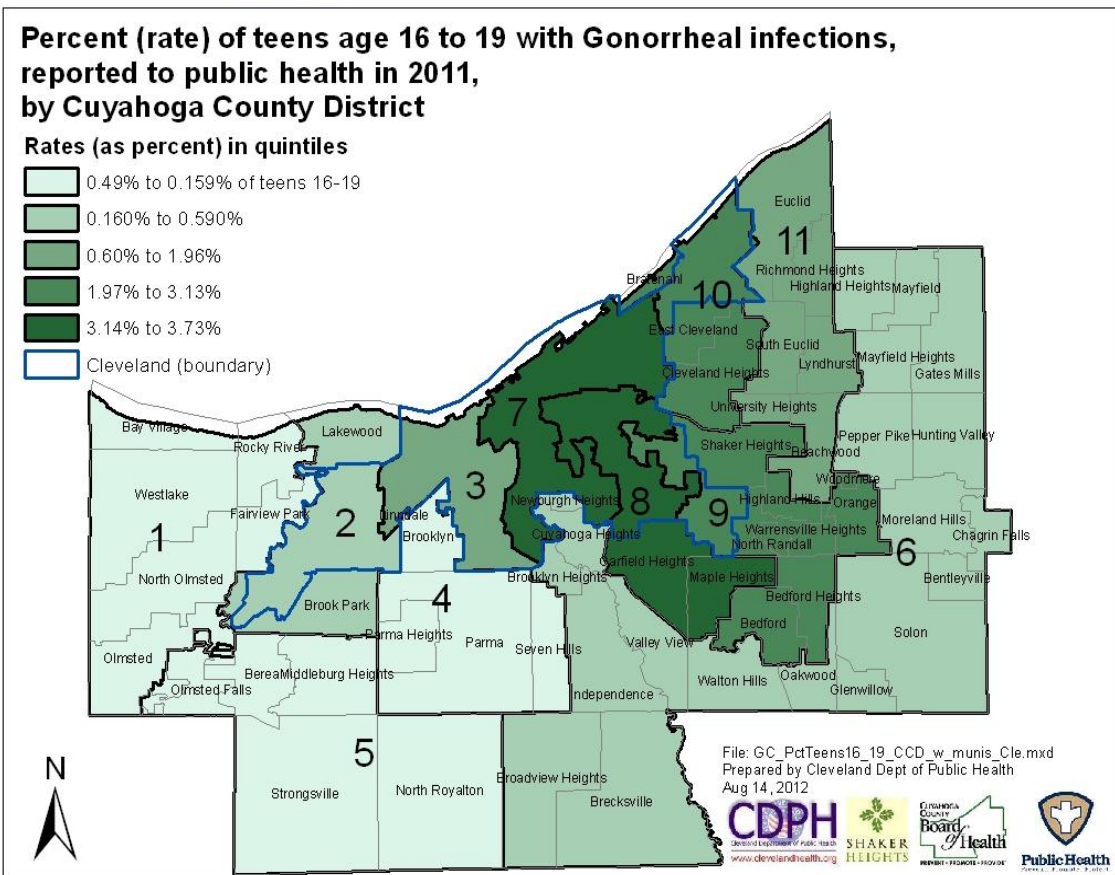
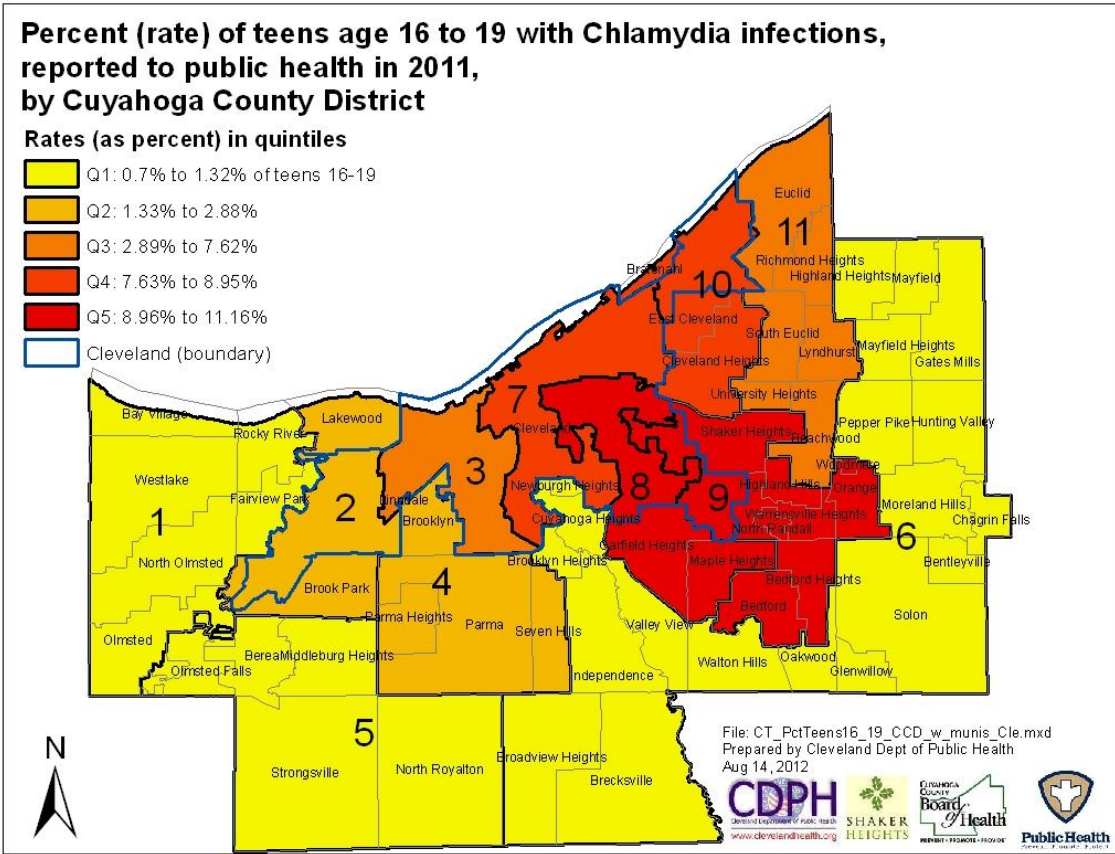
Highest Chlamydia (left) and Gonorrhea (right) rates per 100,000, by race/ethnicity, sex and age.



\*Cleveland Department of Public Health – August 25, 2011

[www.clevelandhealth.info](http://www.clevelandhealth.info)

# Chlamydia & Gonorrhea Rates teens 16-19, 2011



## **2011-2012 School-Based Program Staff Profiles**

The CCBH has a history of working in the area of teen pregnancy prevention and has the programmatic, administrative, and fiscal capacity to manage large scale projects, conduct contract negotiations, and communicate with partners at all levels. The decision-making and supervisory structure of CCBH is designed to ensure successful implementation of the Teen Wellness Initiative and the activities that fall under it. The supervisor of the Teen Wellness Initiative is a Registered Nurse with a Bachelor of Science in Nursing and concurrently serves as a Title X Family Planning Clinic Project Director with 35 years of experience in public health and wellness. The grant coordinators for the 2011-2012 school year have a combined 15 years of experience in public health programming and social services, and one coordinator holds a Masters of Education in Community Health.

During the 2011-2012 grant year the Beech Brook program was supervised by the manager of CSE. The manager has been employed by Beech Brook for over ten years, and has a long history of managing and delivering reproductive health programming. The manager holds a Bachelors degree in Psychology and has been trained by the nationally recognized Training Institute in Sexual Health Education (TISHE) program through Rutgers University, Answer Project.

Beech Brook also contracted with nine CSE educators to deliver programming throughout the targeted school districts of this grant. All educators started their year with a two-day intensive training on the approved curricula. They were also required to attend monthly continuing education program meetings as well as participate in co-teaching activities and classroom observations. The 2011-2012 CSE educators have a combined total of forty-nine years experience delivering comprehensive sexual health programming. Two of the educators have their Masters Degrees, six have Bachelors and one has an Associates degree. The educators come from a variety of back-ground specialties including certified teachers, licensed social workers, and anger management specialists.

## **Methods**

Seven instruments were used to evaluate Beech Brook's Comprehensive Sex Education (CSE) program: the *5<sup>th</sup> Grade F.L.A.S.H. test*, the *6<sup>th</sup> Grade F.L.A.S.H. test*, the *7<sup>th</sup> Grade Draw the Line test*, the *8<sup>th</sup> Grade Draw the Line test*, the *Student Evaluation Survey*, *Teacher Evaluation Survey*, and the classroom observation form.

The *5<sup>th</sup>* and *6<sup>th</sup>* *Grade F.L.A.S.H. tests* and *7<sup>th</sup>* and *8<sup>th</sup>* *Grade Draw the Line tests* measure students' comprehension of core curriculum components. The instruments were administered before instruction began and after each course was completed to measure how much students learned. The questionnaire is designed with a True/False response format. Students also have the option to indicate "Not Sure".

The CSE *Student Evaluation* was administered to all students at the end of each curriculum. The survey contains four items designed with a 5-point Likert-scale response format and two open-ended questions that allow students to comment on the program in their own words. The four Likert-scale items ask students to evaluate the sexual education teacher and curriculum in key competency areas. The open-ended questions ask students to indicate the most important thing they learned and for ideas on how to change the program.

The CSE *Teacher Evaluation* is administered at the end of the program. The survey contains four items designed in a 5-point Likert-scale response format and three open-ended questions for teacher comments.

As a means of monitoring program implementation and fidelity, program managers from the Cuyahoga County Board of Health (CCBH) and Beech Brook completed classroom observation forms throughout the school year for each of the CSE facilitators. Forms were designed to measure whether the facilitator followed the implementation design plan, whether the facilitator was prepared for the class, and whether the classroom responded well to the facilitator.

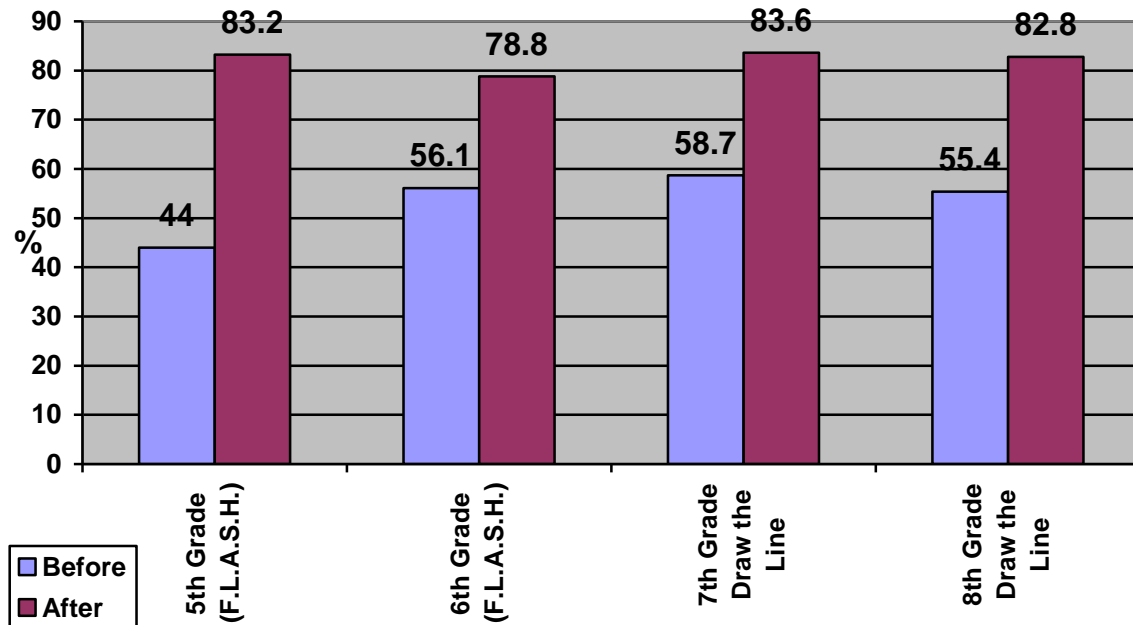
## Findings

### 1. Testing Summary by Grade Level (Districts Combined)

The initial analysis examined average test scores before and after each curriculum for all six districts combined. These results provide a snapshot summary of the efficacy of the Comprehensive Sexual Education program. As depicted in Table 1 and Figure 1 below, test scores increased significantly for each grade level curriculum ( $p < .001$ ). This demonstrates that students in each grade level learned the respective curricula.

	<i>Pre-test N</i>	<i>Pre-test Correct (%)</i>	<i>Post-test N</i>	<i>Post-test Correct (%)</i>	<i>T</i>	<i>p value (Sig.)</i>
5 <sup>th</sup> Grade F.L.A.S.H.	1201	44.0	1145	83.2	56.2	0.000
6 <sup>th</sup> Grade F.L.A.S.H.	1192	56.1	1208	78.8	10.6	0.000
7 <sup>th</sup> Grade Draw the Line	1074	58.7	1070	83.6	12.6	0.000
8 <sup>th</sup> Grade Draw the Line	1055	55.4	1076	82.8	34.5	0.000

**Figure 1: Test Scores Before and After Comprehensive Sexual Education Curricula, All Districts Combined**



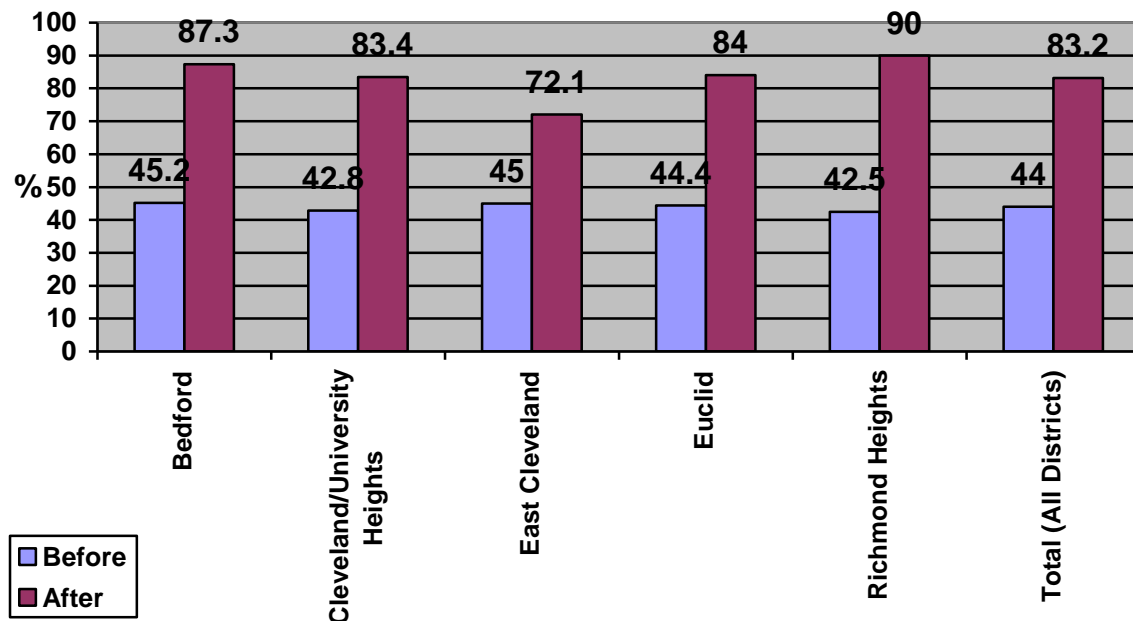


## 2. 5<sup>th</sup> Grade F.L.A.S.H. Test Results

The 5<sup>th</sup> Grade F.L.A.S.H. Test was administered to 5<sup>th</sup> graders in Bedford, Cleveland Heights /University Heights, East Cleveland, South Euclid/Lyndhurst, and Warrensville Heights<sup>1</sup>. Average scores increased from pre-test to post-test for each school district. The improvement was statistically significant ( $p < 0.001$ ) for each district. Please see Table 2 and Figure 2 below for details. Furthermore, there was statistically significant improvement on each of the individual test questions. Please see Table 3 for details.

	<i>Pre-test N</i>	<i>Pre-test Correct (%)</i>	<i>Post-test N</i>	<i>Post-test Correct (%)</i>	<i>T</i>	<i>p value (Sig.)</i>
Bedford	242	45.2	225	87.3	30.7	0.000
Cleveland /University Heights	393	42.8	374	83.4	31.4	0.000
East Cleveland <sup>2</sup>	159	45.0	152	72.1	14.1	0.000
Euclid	346	44.4	334	84.0	31.7	0.000
Richmond Heights	61	42.5	60	90.0	19.1	0.000
Total (All Districts)	1201	44.0	1145	83.2	56.2	0.000

**Figure 2: Test Scores Before and After F.L.A.S.H. 5th Grade**



<sup>1</sup> Warrensville Heights was excluded from the 5<sup>th</sup> grade analysis because there were no post-tests.

<sup>2</sup> One classroom in East Cleveland tested early in the year used an older test version for the pre-test and the updated version for the post-test.

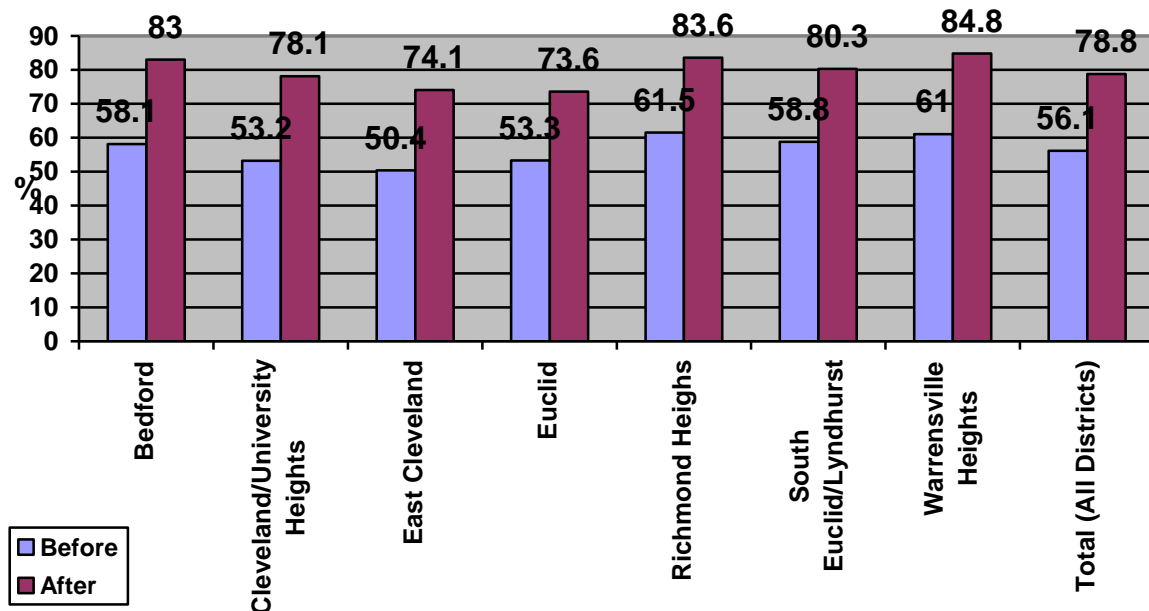
<b>Table 3</b>						
<b>F.L.A.S.H. 5<sup>th</sup> Grade Overall Test Score Results, Individual Items</b>						
	<i>Pretest N</i>	<i>% Correct Before</i>	<i>Posttest N</i>	<i>% Correct After</i>	<i>T</i>	<i>p value (Sig.)</i>
<i>1. The changes caused during puberty are only physical.</i>	1201	37.1	1145	79.7	23.2	0.000
<i>2. Girls usually begin puberty before boys.</i>	1201	48.1	1145	95.7	30.5	0.000
<i>3. Mood swings and increased appetite are two changes that can happen during puberty.</i>	1201	58.0	1145	88.7	17.9	0.000
<i>4. HIV affects the immune system.</i>	1201	44.5	1145	93.7	30.7	0.000
<i>5. The pituitary gland releases (sends) the hormone that starts puberty.</i>	1201	30.8	1145	82.5	29.7	0.000
<i>6. If someone touches you and makes you feel yucky and uncomfortable, it is never your fault.</i>	1201	70.9	1145	90.0	12.0	0.000
<i>7. The male reproductive cells are called "sperm".</i>	1201	69.7	1145	93.2	15.4	0.000
<i>8. About once a month, the lining of the uterus is shed during a girl's menstruation.</i>	1201	32.9	1145	74.1	21.9	0.000
<i>9. The menstrual period happens every three to eight days.</i>	1201	31.6	1145	60.4	14.6	0.000
<i>10. When a woman is pregnant the baby grows in the stomach.</i>	1201	9.8	1145	82.9	51.9	0.000
<i>11. The main organs of the female reproductive system are the spinal cord, the brain, and the nerves.</i>	1201	11.3	1145	50.0	22.3	0.000
<i>12. During puberty, some boys experience wet dreams and some do not.</i>	1201	44.1	1145	94.0	31.2	0.000
<i>13. HIV is the virus that causes AIDS.</i>	1201	48.7	1145	92.0	26.2	0.000
<i>14. Every action has a consequence, positive or negative.</i>	1201	78.7	1145	87.6	5.8	0.000

### 3. 6<sup>th</sup> Grade F.L.A.S.H. Test Results

The 6<sup>th</sup> Grade F.L.A.S.H. Test was administered to students in the Bedford, Cleveland Heights /University Heights, East Cleveland, Euclid, Richmond Heights, South Euclid/Lyndhurst, and Warrensville Heights school districts. Average scores increased from pre-test to post-test for each district. The improvement was statistically significant ( $p < 0.001$ ) for each school district. Please see Table 4 and Figure 3 for more details. Analysis of individual questions on the test showed statistically-significant improvement for each question. Please see Table 5 for more details.

<b>Table 4</b>						
<b>F.L.A.S.H. 6<sup>th</sup> Grade Overall Test Score Results by School District</b>						
	<i>Pre-test N</i>	<i>Pre-test Correct (%)</i>	<i>Post-test N</i>	<i>Post-test Correct (%)</i>	<i>T</i>	<i>p value (Sig.)</i>
Bedford	222	58.1	235	83.0	18.0	0.000
Cleveland/ University Heights	146	53.2	153	78.1	12.5	0.000
East Cleveland <sup>3</sup>	110	50.4	119	74.1	9.7	0.000
Euclid	298	53.3	291	73.6	14.3	0.000
Richmond Heights	52	61.5	53	83.6	7.8	0.000
South Euclid/Lyndhurst	268	58.8	268	80.3	14.2	0.000
Warrensville Heights	96	61.0	89	84.8	11.2	0.000
Total (All Districts)	1192	56.1	1208	78.8	10.6	0.000

**Figure 3: Test Scores Before and After F.L.A.S.H. 6th Grade**



<sup>3</sup> One class in East Cleveland Superior School was missing a pre-test, and was therefore eliminated from the analysis.

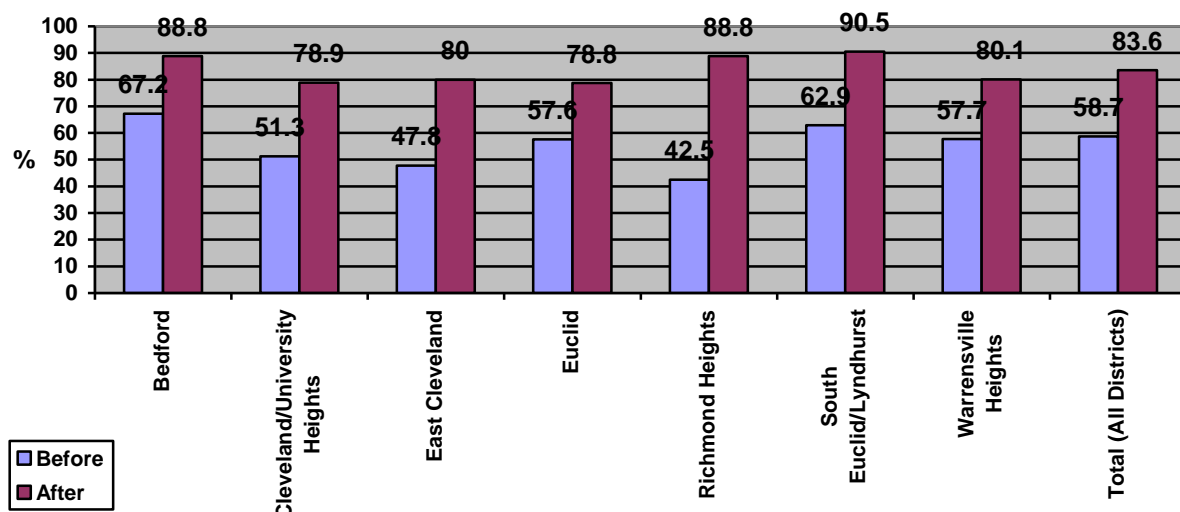
<b>Table 5</b>						
<b>F.L.A.S.H. 6<sup>th</sup> Grade Overall Test Score Results, Individual Items</b>						
	<i>Pretest N</i>	<i>% Correct Before</i>	<i>Posttest N</i>	<i>% Correct After</i>	<i>T</i>	<i>p value (Sig.)</i>
<i>1. A support system is made up of people who can help you solve a problem.</i>	1192	56.0%	1208	83.7%	15.5	0.000
<i>2. Mood swings are often part of puberty.</i>	1192	80.5%	1208	93.2%	9.64	0.000
<i>3. The pituitary gland releases (sends) the hormone that starts puberty.</i>	1192	50.3%	1208	86.9%	21.0	0.000
<i>4. The main organs of the female reproductive system are the spinal cord, the brain, and the nerves.</i>	1192	30.5%	1208	63.6%	17.2	0.000
<i>5. Semen is the fluid that contains sperm.</i>	1192	64.4%	1208	91.1%	16.6	0.000
<i>6. Sperm is produced in the bladder.</i>	1192	27.7%	1208	68.0%	21.6	0.000
<i>7. You can get HIV/AIDS by hugging someone who has HIV/AIDS.</i>	1192	76.6%	1208	93.0%	11.4	0.000
<i>8. The ovaries contain the egg cells.</i>	1192	59.8%	1208	89.8%	18.0	0.000
<i>9. Fraternal twins happen when 2 different eggs are released from the ovaries.</i>	1192	49.4%	1208	76.1%	14.0	0.000
<i>10. More than one sperm can fertilize a single egg.</i>	1192	40.7%	1208	21.1%	10.6	0.000
<i>11. Menstruation (a girls period) is when the uterus sheds or releases its blood-rich lining.</i>	1192	66.9%	1208	87.3%	12.3	0.000
<i>12. Sex abuse is always the child's fault.</i>	1192	89.7%	1208	94.5%	4.4	0.000
<i>13. HIV/AIDS can be spread by people who look and feel perfectly healthy.</i>	1192	39.3%	1208	75.8%	19.4	0.000
<i>14. A miscarriage is the natural way that a woman's body removes a baby that has not survived in her uterus.</i>	1192	54.2%	1208	79.1%	13.4	0.000

#### 4. 7<sup>th</sup> Grade Draw the Line Test Results

The 7<sup>th</sup> Grade Draw the Line Test was administered to students in Bedford, Cleveland Heights / University Heights, East Cleveland, Euclid, Richmond Heights, South Euclid/Lyndhurst, and Warrensville Heights. Average scores increased from pre-test to post-test for each school. The improvement was statistically significant ( $p < 0.001$ ) for each school. Table 6 and Figure 4 provide more details. Item-level analysis of the students' responses to individual test questions showed statistically significant improvement on each question.

<b>Table 6</b>						
<b>Draw the Line 7th Grade Overall Test Score Results by School District</b>						
	<i>Pre-test N</i>	<i>Pre-test Correct (%)</i>	<i>Post-test N</i>	<i>Post-test Correct (%)</i>	<i>T</i>	<i>p value (Sig.)</i>
Bedford	247	67.2	251	88.8	13.0	0.000
Cleveland/ University Heights <sup>4</sup>	87	51.3	93	78.9	9.8	0.000
East Cleveland	150	47.8	142	80.0	12.8	0.000
Euclid <sup>5</sup>	273	57.6	293	78.8	11.9	0.000
Richmond Heights <sup>6</sup>	18	42.5	32	88.8	8.1	0.000
South Euclid/Lyndhurst <sup>7</sup>	203	62.9	169	90.5	16.7	0.000
Warrensville Heights	96	57.7	90	80.1	8.6	0.000
Total (All Districts)	1074	58.7	1070	83.6	12.6	0.000

**Figure 4: Scores Before and After the Draw the Line 7th Grade**



<sup>4</sup> One class in Cleveland Heights/University Heights Wiley Middle School did not have post-tests, and is therefore eliminated from the analysis.

<sup>5</sup> Pre-tests for one class in Euclid early in the year were on last year's forms.

<sup>6</sup> One class for Richmond Heights Middle School did not have pre-tests, and is therefore eliminated from the analysis.

<sup>7</sup> Post-tests for one class in South Euclid/Lyndhurst were on last year's forms.

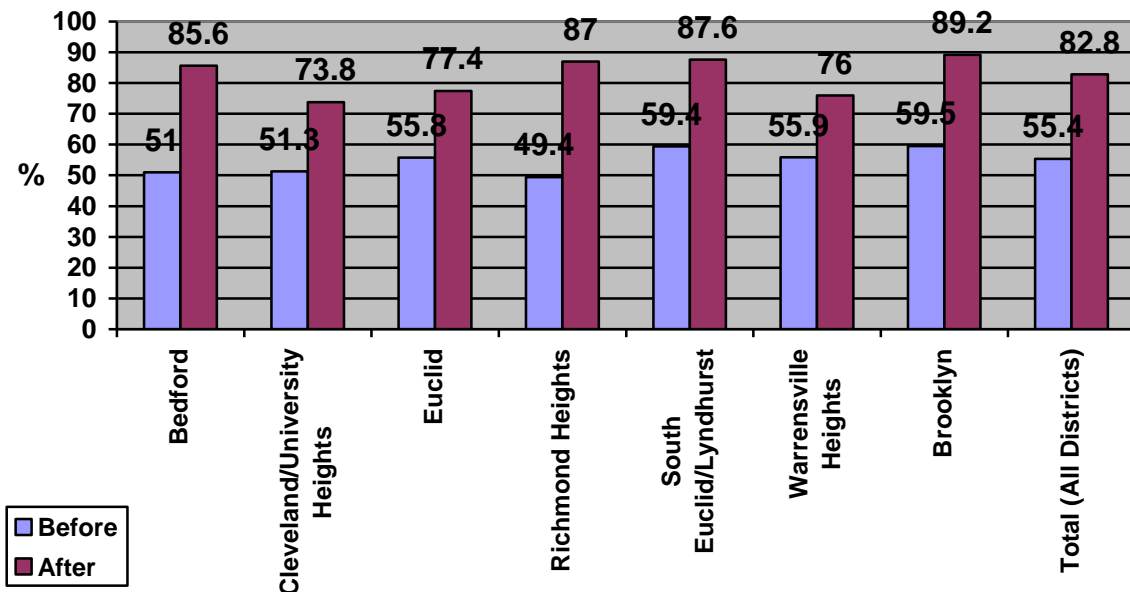
	<i>Pretest N</i>	<i>% Correct Before</i>	<i>Posttest N</i>	<i>% Correct After</i>	<i>T</i>	<i>p value (Sig.)</i>
<i>1. All sexually transmitted diseases (STD's) can be cured if discovered early.</i>	1074	49.2	1070	83.0	17.7	0.000
<i>2. Text messages, photos, and emails can only be seen by those you send it to.</i>	1074	74.1	1070	89.3	9.2	0.000
<i>3. HIV is the virus that causes AIDS.</i>	1074	64.5	1070	92.6	16.9	0.000
<i>4. Some sexually transmitted diseases (STD's) can be cured and some cannot be cured.</i>	1074	66.9	1070	84.1	9.5	0.000
<i>5. Responsible sexual behavior can help prevent sexually transmitted diseases (STD's).</i>	1074	70.9	1070	83.6	7.1	0.000
<i>6. A "risky situation" might include either the use of alcohol, drugs, or being alone with your partner.</i>	1074	69.3	1070	88.6	11.3	0.000
<i>7. When saying "no" your body language is extremely important.</i>	1074	70.1	1070	90.8	12.5	0.000
<i>8. Peer pressure can make it more difficult to "drawn the line" or "say no".</i>	1074	76.5	1070	88.1	7.1	0.000
<i>9. Condom use will provide 100% protection from HIV and sexually transmitted diseases (STD's).</i>	1074	70.5	1070	86.5	9.2	0.000
<i>10. Eye contact is not necessary when trying to communicate effectively.</i>	1074	47.5	1070	73.2	12.6	0.000
<i>11. A pregnant woman infected with HIV will always have a HIV positive baby.</i>	1074	40.1	1070	77.4	18.9	0.000
<i>12. The labia, clitoris, and ovaries are all part of the female reproductive system.</i>	1074	48.0	1070	77.4	14.7	0.000
<i>13. One of the ways to avoid getting an STD or AIDS is to use latex condoms.</i>	1074	47.1	1070	85.1	20.3	0.000
<i>14. The most common symptom of any STD is no symptom at all.</i>	1074	26.9	1070	70.5	22.4	0.000

## 5. 8<sup>th</sup> Grade *Draw the Line* Test Results

The 8<sup>th</sup> Grade *Draw the Line* test was administered to students in the Bedford, Cleveland/University Heights, Euclid, Richmond Heights, South Euclid/Lyndhurst, Warrensville Heights, and Brooklyn school districts. Average scores increased from pre-test to post-test for each school district. The improvement was statistically significant ( $p < 0.001$ ) for each district. Table 8 and Figure 5 provide further detail. Analysis of improvement on individual test questions showed statistically-significant improvement on each questions.

	<i>Pre-test N</i>	<i>Pre-test Correct (%)</i>	<i>Post-test N</i>	<i>Post-test Correct (%)</i>	<i>T</i>	<i>p value (Sig.)</i>
Bedford	190	51.0	190	85.6	19.2	0.000
Cleveland/University Heights	76	51.3	80	73.8	7.3	0.000
Euclid	298	55.8	295	77.4	14.0	0.000
Richmond Heights	71	49.4	92	87.0	12.7	0.000
South Euclid/Lyndhurst	216	59.4	225	87.6	17.9	0.000
Warrensville Heights	80	55.9	74	76.0	6.3	0.000
Brooklyn	124	59.5	120	89.2	15.1	0.000
Total	1055	55.4	1076	82.8	34.5	0.000

**Figure 5: Test Scores Before and After the Draw the Line 8th Grade**



<b>Table 9</b>						
<b>Draw the Line 8th Grade Overall Test Score Results, Individual Items</b>						
	<i>Pretest N</i>	<i>% Correct Before</i>	<i>Posttest N</i>	<i>% Correct After</i>	<i>T</i>	<i>p value (Sig.)</i>
<i>1. Some sexually transmitted diseases (STD's) can make a person infertile or unable to have children.</i>	1055	59.3	1076	83.7	12.5	0.000
<i>2. Being an I.V. (intravenous) drug user puts a person at higher risk for HIV disease.</i>	1055	45.1	1076	89.3	24.0	0.000
<i>3. Giving and receiving gifts is one of the most important components of a healthy relationship.</i>	1055	59.1	1076	81.1	11.9	0.000
<i>4. There is presently a cure for HIV/AIDS.</i>	1055	71.5	1076	93.2	13.5	0.000
<i>5. A female cannot get pregnant the first time she has sexual intercourse.</i>	1055	83.2	1076	91.6	5.1	0.000
<i>6. Chlamydia is a bacterial STD that can be cured.</i>	1055	39.2	1076	76.5	18.7	0.000
<i>7. If a person tests negative for HIV, that person does not need to use condoms during sex.</i>	1055	87.0	1076	94.1	5.6	0.000
<i>8. The birth control pill protects you from unwanted pregnancy and sexually transmitted diseases (STD's).</i>	1055	55.7	1076	78.1	10.8	0.000
<i>9. Latex or polyurethane condoms and abstinence are the only two forms of protection that can protect you against pregnancy, STD's, and HIV/AIDS.</i>	1055	41.4	1076	75.3	16.6	0.000
<i>10. Sex with a latex condom and baby oil is a risky situation.</i>	1055	29.9	1076	85.7	31.2	0.000
<i>11. Only people who are sick with AIDS can pass HIV disease to another person.</i>	1055	33.0	1076	56.9	11.1	0.000
<i>12. Once people get a sexually transmitted disease (STD), they cannot get the same STD again.</i>	1055	47.7	1076	79.1	15.7	0.000
<i>13. A person cannot get a sexually transmitted disease or HIV by having oral sex.</i>	1055	62.8	1076	87.8	13.3	0.000
<i>14. The epididymis, prostate, and testes are all part of the male reproductive system.</i>	1055	60.2	1076	86.3	14.0	0.000

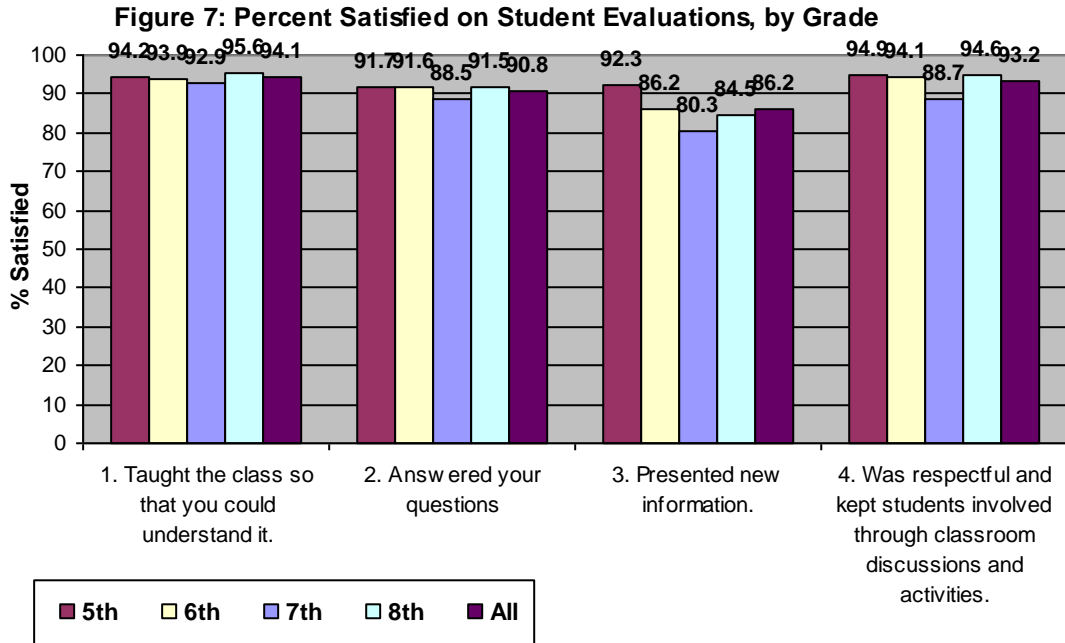


## 6. Student Evaluation Surveys

Four thousand four hundred thirty-five *Student Evaluation Surveys* were collected and analyzed this year for Beech Brook’s Comprehensive Sex Education program.

<b>Table 10</b>					
<b>Student Evaluation Surveys Collected</b>					
	<i>5<sup>th</sup> Grade</i>	<i>6<sup>th</sup> Grade</i>	<i>7<sup>th</sup> Grade</i>	<i>8<sup>th</sup> Grade</i>	<i>Total</i>
Bedford	210	224	242	170	846
Brooklyn	0	0	0	119	119
Cleveland/University Heights	361	140	84	63	648
East Cleveland	160	98	135	0	393
Euclid	329	245	269	270	1113
Richmond Heights	61	46	51	74	232
South Euclid/Lyndhurst	213	228	176	219	836
Warrensville	0	86	84	78	248
<b>TOTAL</b>	1334	1067	1041	993	4435

First, the percent of students indicating satisfaction on each Likert-style item was calculated (the percent of students who responded with of ‘4’ or ‘5’). As the chart below demonstrates, the results reveal satisfaction among the vast majority of students. In the overall analysis, the percent satisfied was highest for question 1, “taught the class so you can understand it” at 94.1%. Satisfaction was lowest on question 3, “presented new information” at 86.2%. With the exception of 8<sup>th</sup> grade, the percentage of students agreeing to this question decreased for each grade level, suggesting that generally more of the material was a review for the higher grade levels. Analyses were also conducted separately for each school district (See Table 11), yielding no consistent trend except that student satisfaction was particularly strong in Brooklyn.



**Table 11**

**Percent Satisfied on Student Evaluations by School District**

	Bedford	Brooklyn	Cleveland/University Heights	East Cleveland	Euclid	Richmond Heights	South Euclid/Lyndhurst	Warrensville
<i>1. Taught class so I could understand it.</i>	95.0	99.2	93.8	92.1	92.3	94.8	96	94.3
<i>2. Answered my questions.</i>	91.6	98.3	92.2	90.5	89.9	91.7	90	87.9
<i>3. Presented new information.</i>	83.4	93.2	87.3	91.3	85	89	85.5	86.9
<i>4. Was respectful and kept students involved.</i>	93	100	92.2	93.8	93.7	94.3	92.5	91.1

## Student Comments:

Students responded to two open-ended questions: “What was the most important thing you learned?” and “How would you change the program?” Responses to open-ended questions were reviewed to identify major themes.

### *What is the most important thing you learned?*

There were 4,203 student comments to the “most important” question. The major themes included the following:

- HIV and STD prevention and treatment
- Male and female reproductive system
- Changes of puberty
- Pregnancy prevention (abstinence and birth control)
- Sexual abuse and internet/cell phone safety
- Healthy relationships; how to say no

### *How would you change the program?*

There were 3,530 student comments for the “what would you change” question. Most students said that they wanted no change, and the program is great as is. The major themes among students who suggested a change were as follows:

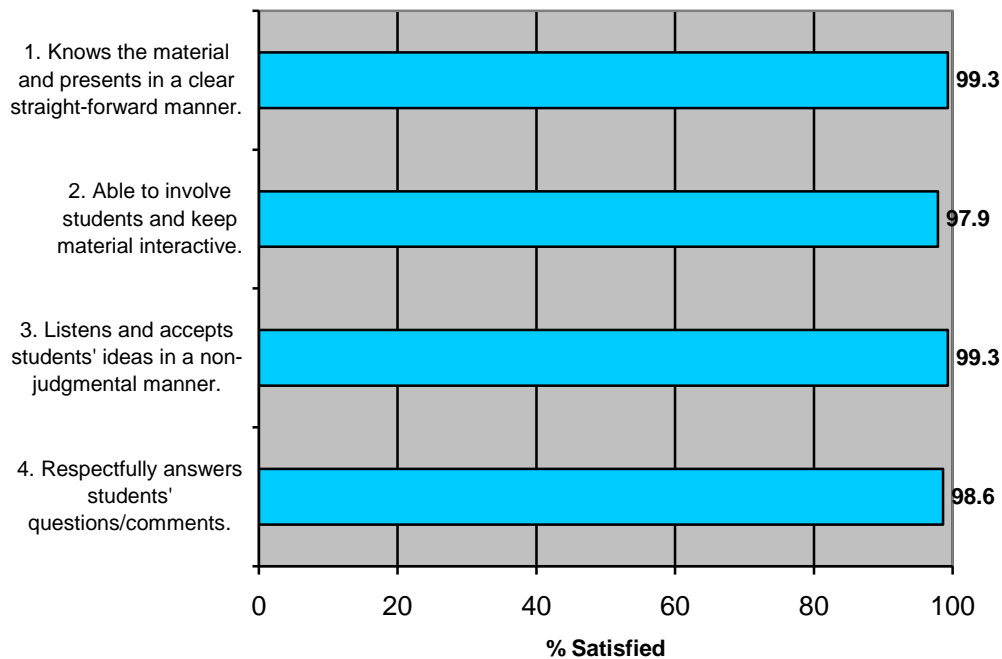
- Separate boys and girls
- Have more interactive learning activities (role play and games)
- Have more visual-based learning (videos, demonstrations)
- More new information (less review/less time on review)
- Expand the program (make longer or add more information)
- Make the program less embarrassing

## 7. Teacher Evaluations

There were 119 *Teacher Evaluation Surveys* collected this year. The distribution of those surveys by curriculum and school are shown below. The percent satisfied on each response item was calculated. Teacher satisfaction with the program was high across the board. 99.3% of teachers knew the material and presented in a clear, straightforward manner. 98.6% agreed that the teacher respectfully answered students' questions. 99.3% said the CSE teachers listened to student ideas in a non-judgmental manner and kept students involved through interactive materials.

<b>Table 12</b>					
<b>Teacher Evaluation Surveys Collected</b>					
	<i>5<sup>th</sup> Grade</i>	<i>6<sup>th</sup> Grade</i>	<i>7<sup>th</sup> Grade</i>	<i>8<sup>th</sup> Grade</i>	<i>Total</i>
Bedford	10	12	3	3	28
Cleveland/University Heights	14	4	5	5	28
East Cleveland	8	4	4	0	16
Euclid	16	3	3	3	29
Richmond Heights	3	1	4	2	10
South Euclid/Lyndhurst	8	10	1	3	22
Warrensville Heights	0	3	3	3	9
<b>TOTAL</b>	<b>59</b>	<b>37</b>	<b>23</b>	<b>19</b>	<b>142</b>

**Figure 8: Teacher Evaluation Survey Results, All Districts**



## Teacher Comments:

All of the teachers provided comments on the program. In their comments, teachers communicated value for program and course topics such as bodily changes that occur during puberty, peer pressure, abuse prevention, and information about STD's and pregnancy. Teachers were complimentary of the program and instructors' ability to answer questions calmly and clearly and to create a respectful dialogue among students. Suggestions included: more information on abstinence, decision-making and resisting peer pressure, healthy relationships, the emotional consequences of sex, and hygiene. Teachers also suggested role plays on getting out of risky situations and saying 'no', separating boys and girls, if only for some portions of the class, and more time in general.

## **8. Facilitator Observations**

As a means of monitoring program implementation and fidelity, observers from the Cuyahoga County Board of Health and Beech Brook conducted classroom site visits throughout the school year. A total of 28 observations were conducted for ten trained Beech Brook facilitators. During these visits, observers completed Facilitator Observation Forms assessing the trained facilitator's skills and the behavior of the students in the classroom.

Overall, observers gave the program facilitators high marks finding that 96% of facilitators followed the curriculum syllabus, and 100% provided appropriate answers to all of the students questions. They also found that in 92% of the classrooms, the students seemed engaged and interested in the materials being presented.

N=28	Yes
Was the facilitator on time?	100%
Was the facilitator prepared?	96%
Did the facilitator follow the curriculum/topic?	96%
Did the facilitator invite students to ask questions?	100%
Did the facilitator answer questions appropriately?	100%
Did the facilitator check with students to make sure they understood the materials?	100%
Did the students seem to have difficulty with understanding the topics?	8%
Did the students seem interested in the topic that was being presented?	92%

## **9. Parent Meetings**

Parent meetings are designed to help familiarize parents/guardians with the curricula that we will be delivering at their child's school and to help provide them with some basic information about how to talk to their children about sexual and reproductive health. Topics covered during the program include: growth and development stages, common questions from children, and becoming an "askable" adult. We also provide each parent with a resource packet to take home at the end of the hour-long program.

During the 2011/2012 school year, a total of 5 Parent Meetings were offered. Surveys were not completed with parents this school year due to the low number of attendees.

## **Conclusion**

Overall, the findings of this evaluation are very positive. Outcome findings using the pre-tests and post-tests of the curricula show students learned the material. Results from the Student and Teacher Evaluations show a high level of satisfaction with the program. This evaluation report suggests the ongoing need, as well as the social importance, of the school-based comprehensive sexual education program funded by the Cuyahoga County Family and Children First Council. Beech Brook and Cuyahoga County Board of Health staff will review these findings carefully for opportunities for performance improvement.

Comprehensive Sex Education Evaluation Report Prepared by:

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All pre-test surveys, post-test surveys, student evaluations, and teacher evaluations were processed and analyzed by Beech Brook Research and Evaluation Supervisor/Independent Contractor, Julia Kobulsky.

**This program is brought to you by the Cuyahoga County Board of Health's  
Teen Wellness Initiative thanks to funding provided by the  
Cuyahoga County Family and Children First Council on behalf of the  
Cuyahoga County Office of Health and Human Services**

