

Science Strategies for Improving Student Health and Academic Achievement




Hosted by:

The University of South Florida's Healthy Schools Project
and
The Florida Department of Education

Conference Call Etiquette

- *During the webinar we will have all phone lines muted.*
- *If you have a question for the presenter, please post your question in the chat box.*
- *This webinar is being recorded.*
- *Audio: United States (Toll-free): 1 (877) 309-2071
United States: +1 (562) 247-8421
Access Code: 500-809-356*

Objectives

- Identify challenges that impact student health and academic achievement
 - Identify Florida standards and benchmarks that are aligned with instruction to positively affect health and academic achievement
 - Recognize the impact of implementing evidence-based “family life” curricula
 - Learn how one partner district has implemented an evidence-based “family life” curriculum through science
 - Identify available resources from state and national sources
- 

Presenters

Ksena Zipperer, ESHE/SHS Coordinator
School-Based HIV/STD and Teen Pregnancy Prevention Project
University of South Florida
Ksena.zipperer@fldoe.org

Patricia Duncan, Secondary Science Specialist
Florida Department of Education
Patricia.Duncan@fldoe.org

Dr. Alan Cox, Divisional Director for Professional Standards
Leon County School District
coxa@leonschools.net

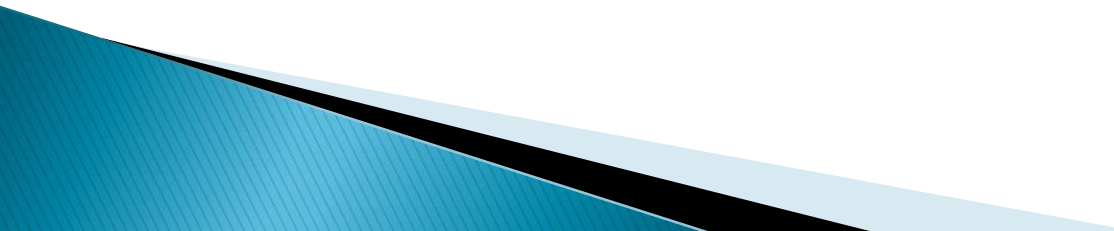
Charlotte Bleiler, Science Teacher Godby High School
Leon County School District
bleilerc@leonschool.net

School-Based HIV/STD and Teen Pregnancy Prevention Project

The challenges:

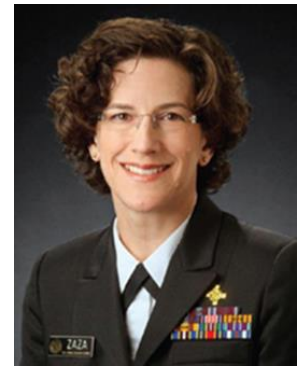
- teens' risky sexual behaviors
- unsafe sexual practices
- effects to health and academic performance

Schools can provide:

- health and science education
 - school-linked health services, and
 - safe and supportive school environments
- 

School-Based HIV/STD and Teen Pregnancy Prevention Project

- Outcomes: reduced risk behaviors among young people, positive effects on health and academic achievement



Source: Dr. Stephanie Zaza, MD, MPH – CAPT, U.S. Public Health Service, Former Director, Division of Adolescent and School Health, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention

Why should school district leadership in Florida be concerned with the sexual risk behavior of youth?

Florida

- Second in newly diagnosed HIV cases
- Third in cumulative AIDS cases
- 21st in the nation in births to teens

U.S.

- 1 in 4 teens in the U.S. will be be **pregnant** by age 19.
- 1 in 2 young people will contract an **STD** by age 25.

Sources: FLDOH and the National Campaign to Prevent Teen and Unplanned Pregnancy 2014



Sexual Risk Behavior of Florida's Youth

- 40% of students in grades 9 through 12 (**approximately 278,127 students**) reported having sexual intercourse at least once.
- 9% of males and 2% of females (**approximately 30,744 and 7,464 students respectively**) had intercourse for the first time before age 13.
- 24% of 9th graders (**approximately 44,495 students**) have had sexual intercourse at least once.
- 57% of 12th graders (**approximately 88,827 students**) have had sexual intercourse at least once.
- 52% of 12th graders (**approximately 82,200 students**) have engaged in oral sex at least once.
- 17% of 12th graders (**approximately 26,806 students**) have had sex with multiple partners (**four or more during their lifetime**)

Source: Florida's 2015 Youth Risk Behavior Surveillance Survey

Why should teachers and school district leadership in Florida be concerned with the sexual risk behavior of youth?

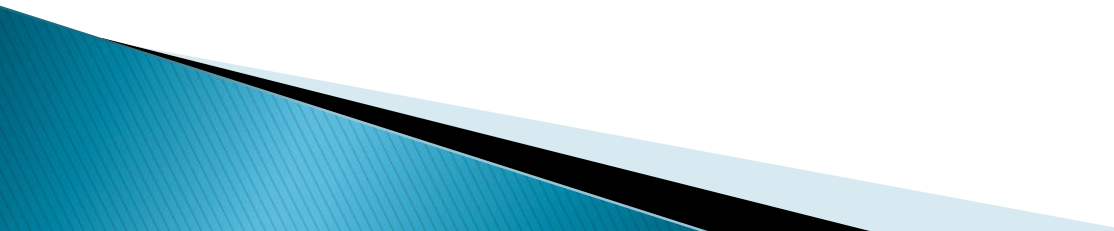
- 50% of teen mothers receive a high school diploma with their cohort.
- 30% of teen girls who drop out of school cite parenthood.

Data Source: The National Campaign to Prevent Teen and Unplanned Pregnancy 2014



Florida's School-Based HIV/STD and Teen Pregnancy Prevention Project

Assisting 12 partner districts to improve student health and academic achievement through:

- Exemplary Sexual Health Education (ESHE)
 - Safe and Supportive Environments (SSE)
 - Sexual Health Services (SHS)
- 

Definition of ESHE

Exemplary Sexual Health Education

- Evidence-based, evidence informed/promising curriculum
- Trained teachers, knowledgeable in current theory and practice delivering medically accurate and science-based information
- Teachers following guidance concerning sexual health education and school district policy
- Schools in which students learn to develop healthy relationships
- Schools in which students are regularly assessed on skills

Source – CDC Division of Adolescent and School Health



What is sexual health education?



Lessons should be taught K–12, and be designed to meet the needs of students at the various age and grade levels.

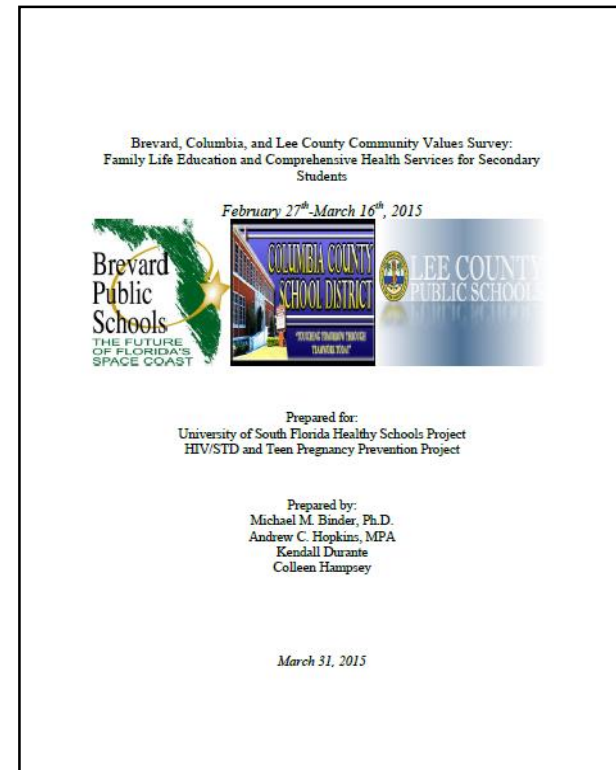
Specific content and curriculum is determined by local school district policy.

Source:

Teaching About Sexuality and HIV, author Yvonne Hedgepeth and Joan Helmich

Do Floridians support sexual health education?

- 2013 Parent Call Back Survey
- Public opinion survey from three partner districts



Is sexual health education required instruction in Florida?

Yes, it is required through Comprehensive Health Education, Florida State Statute 1003.42 (2)(n).

Parents can choose to opt their children out of the sexual health component of comprehensive health education.

Access the state statutes at www.leg.state.fl.us

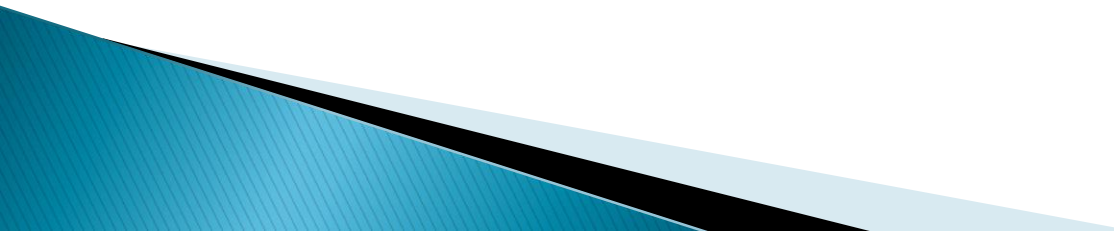
Florida State Statute

Health Education; Instruction in Acquired Immune Deficiency Syndrome

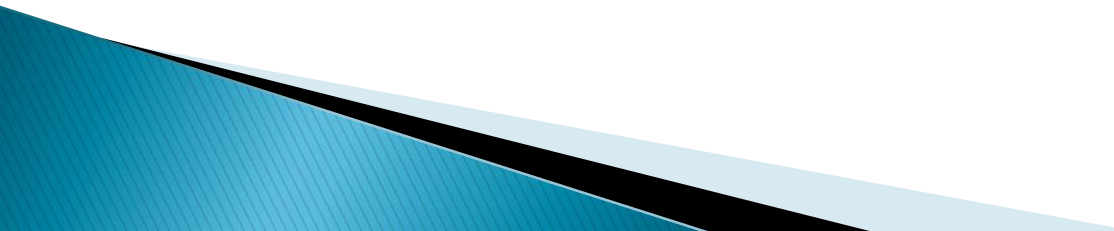
1003.46(1) Each district school board may provide instruction in acquired immune deficiency syndrome education to include:

- *Known modes of transmission*
- *Signs and symptoms*
- *Risk factors associated with AIDS*
- *Means used to control the spread of HIV*
- *Appropriate to grade level*
- *Current theory and practice regarding HIV and its prevention*
- *Must include instruction in abstinence from sexual activity*

Sexual Health Policy and Programs

- Florida statues requires benefits of abstinence be stressed to students when sexual health education is taught.
 - Benefits of abstinence can be stressed within abstinence-only, abstinence-plus, or comprehensive sexual health education.
 - Districts choose the appropriate curriculum based on the needs of students and to reflect local values and concerns.
- 

What is your district policy?

- Abstinence-Only
 - Abstinence-Plus
 - Comprehensive Sexual Health Education
- 

How do you make decisions about sexual health policy and curriculum?



What does your local data indicate?

- Births to teen mothers
- STD rates among youth
- HIV rates
- Teens enrolled in teen parent programs
- Drop out data

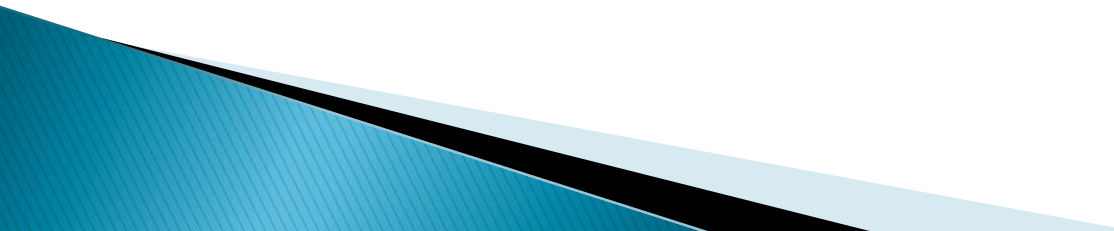
For county specific demographic and health data go to the School-aged Child and Adolescent Profiles on Florida Charts.

www.floridacharts.com/charts/SpecReport.aspx?RepID=7245&tn=31



Local Data

Does local data reflect that the sexual health education needs of students are being met?



District Policy

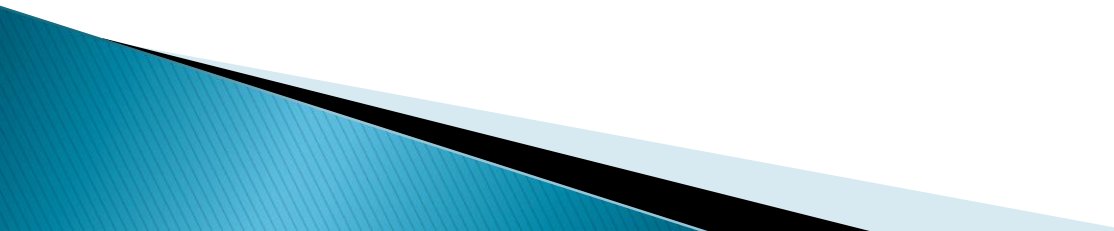
Does district policy reflect the local values and concerns of the community related to sexual health education?



Local Survey Data



Curriculum and Instruction

- Courses used to deliver sexual health
 - Professional development for teachers
 - Guidance for instruction
 - Curriculum or texts being used for sexual health education
- 

Impacting Births to Teens

Manatee County School District – It's yoUR Choice Project

- Evidence-based, medically accurate curriculum in middle and high schools identified as high risk
- Additional lessons provided in a mobile health education bus
- An innovative peer educator program

38% drop in births to teens in a three year period



How do births to teens impact Florida school districts?

Possible loss of funding to districts due to births to teens

One large Florida school district had 985 births to teens ages 15-19 in 2014.

Districts receive between \$5,500 – \$6,000 per student for those students present during the October and February reporting periods.

Half of 985 = 496

496 x \$5,500

Possible loss to district in one year = ***\$2,728,000***



Secondary Science

Presented by:

Patricia Duncan, Secondary Science Program Specialist

Bureau of Standards & Instructional Support

www.FLDOE.org

16 Critical Sexual Health Education Topics

The topics:

- ✓ Benefits of being sexually abstinent.
- ✓ How to access valid and reliable health information, products and services related to HIV, other sexually transmitted diseases, and pregnancy.
- ✓ Influences of family, peers, media, technology and other factors on sexual risk behavior.
- ✓ Communication and negotiation skills related to eliminating or reducing risk for HIV, other STDs, and pregnancy.
- ✓ Goal-setting and decision-making skills related to eliminating or reducing risks.
- ✓ Influencing and supporting others to avoid or reduce sexual risk behaviors.
- ✓ Importance of using condoms consistently and correctly.
- ✓ Importance of using a condom at the same time as another form of contraception to prevent both STDs and pregnancy.
- ✓ How to create and sustain healthy and respectful relationships.
- ✓ Importance of limiting the number of sexual partners.
- ✓ Preventive care that is necessary to maintain reproductive and sexual health.
- ✓ How HIV and other STDs are transmitted.
- ✓ Health consequences of HIV, other STDs, and pregnancy.
- ✓ Effectiveness of condoms.
- ✓ How to obtain condoms.
- ✓ How to correctly use a condom.

Source: The Centers for Disease Control and Prevention

Florida Health Standards Integrated in Science Courses

- 3 Middle School Standards
- 4 High School Standards
- Comprehensive Science vs. Life in Middle Grades
- Biology Requirement

Middle Grades Standards

- [SC.6.L.14.5](#)

Identify and investigate the general functions of the major systems of the human body (digestive, respiratory, circulatory, reproductive, excretory, immune, nervous, and musculoskeletal) and describe ways these systems interact with each other to maintain homeostasis.

- [SC.6.L.14.6](#)

Compare and contrast types of infectious agents that may infect the human body, including viruses, bacteria, fungi, and parasites.

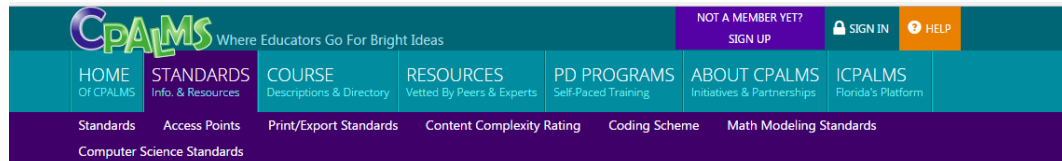
- [SC.7.L.16.3](#)

Compare and contrast the general processes of sexual reproduction requiring meiosis and asexual reproduction requiring mitosis.

High School Standards

- [SC.912.L.14.33](#)

Describe the basic anatomy and physiology of the reproductive system.



SC.912.L.14.33

1 Related Courses

2000350: Anatomy and Physiology (Specifically in versions: **2014 - 2015, 2015 and beyond (current)**)

Export To...



Describe the basic anatomy and physiology of the reproductive system.

Subject Area: Science	Grade: 912
Body of Knowledge: Life Science	
Standard: <i>Organization and Development of Living Organisms -</i>	Date Adopted or Revised: 02/08
A. Cells have characteristic structures and functions that make them distinctive.	
B. Processes in a cell can be classified broadly as growth, maintenance, reproduction, and homeostasis.	
C. Life can be organized in a functional and structural hierarchy ranging from cells to the biosphere.	
D. Most multicellular organisms are composed of organ systems whose structures reflect their particular function.	
Content Complexity Rating: Level 2: Basic Application of Skills & Concepts -	Date of Last Rating: 05/08
More Information	
Status: State Board Approved	

1 Related Courses



High School Standards – Biology and beyond

- [SC.912.L.14.52](#)

Explain the basic functions of the human immune system, including specific and nonspecific immune response, vaccines, and antibiotics.

- [SC.912.L.14.6](#)

Explain the significance of genetic factors, environmental factors, and pathogenic agents to health from the perspectives of both individual and public health.

- [SC.912.L.16.13](#)

Describe the basic anatomy and physiology of the human reproductive system. Describe the process of human development from fertilization to birth and major changes that occur in each trimester of pregnancy.

Science Courses

- M/J Life Science
- M/J Comprehensive Science 1, M/J Comprehensive Science 1 Advanced
- M/J Earth/Space Science, M/J Earth/Space Science Advanced
- M/J International Baccalaureate MYP Life Science
- M/J Physical Science, M/J Physical Science Advanced
- Human Body Systems
- Biology 1, Biology 1 Honors, Biology 2 Honors
- FL Pre-IB Biology 1, IB Biology 1, IB Biology 2, IB Biology 3, IB MYP Biology
- AP Biology
- Anatomy and Physiology, Anatomy and Physiology Advanced
- Pre-AICE Biology IG, AICE Biology 1 AS

The Logistics of Sexual Health Education in Science

- Post-assessment possibilities
- Evidence-based or promising curriculum

Rights, Respect, Responsibility: A K-12 Sexuality Education Curriculum



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Rights, Respect, Responsibility

A K-12 SEXUALITY EDUCATION CURRICULUM

HOME ABOUT BEFORE YOU TEACH LESSON PLANS TRAINING RESOURCES SEARCH



Authors Elizabeth Schroeder, Ed.D., M.S.W, Eva S. Goldfarb, Ph.D. & Nora Gelperin, M.Ed.

- ✓ Fully meets the [National Sexuality Education Standards](#)
- ✓ [CA Healthy Youth Act Aligned Version Available](#)
- ✓ Been through a [SHECAT Curriculum Review](#)
- ✓ Covers all 16 topics recommended by the Centers for Disease Control and Prevention (CDC) as essential components of sexual health education
- ✓ Inclusive for issues related to sexual orientation and gender identity
- ✓ Affordable (Free)
- ✓ Flexible K-12 curriculum
- ✓ Family homework activities
- ✓ Resources for educators at every grade level
- ✓ Training recommended, but not required and available on request
- ✓ Based on Advocates' award-winning When I'm Grown and Life Planning

- Parents' Sex Ed Center
PARENTS DON'T HAVE TO GO IT ALONE
- Sex Education Resource Center
POLICY ASSISTANCE, LESSON PLANS & RESOURCES
- Take Action for Change
TOGETHER, WE CAN MAKE A DIFFERENCE
- Youth Activism
ACT. CONNECT. EMPOWER.

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SUPPORT ADVOCATES FOR YOUTH

Activist Spotlight
NAME: LEXUS

"The motivation to what I do is knowing that I am playing a role in the creation of a world in which we are bonded in love of our shared humanity, not divided by the identities that make us whole."



FIND OUT MORE ABOUT LEXUS

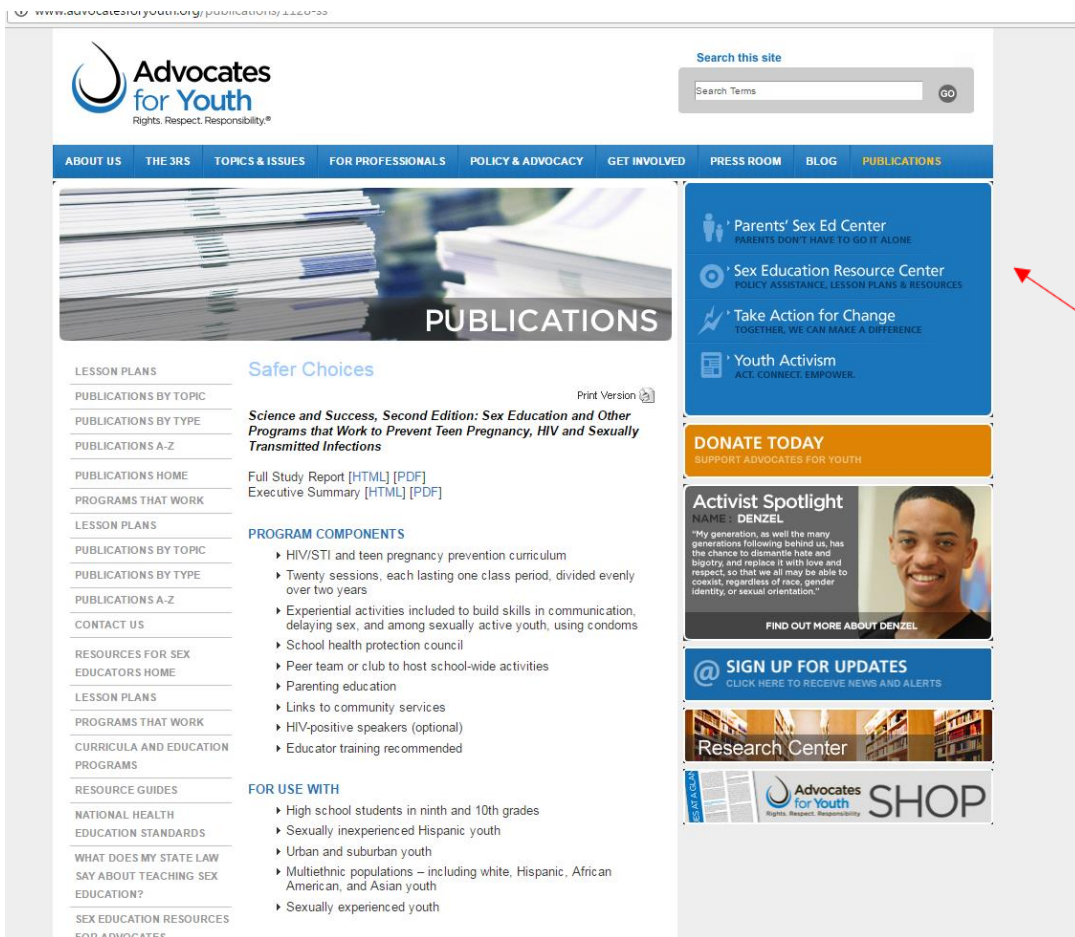
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<http://www.advocatesforyouth.org/3rs-curriculum>

www.FLDOE.org

Safer Choices



www.advocatesforyouth.org/publications/1128-ss

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Activist Spotlight
NAME: DENZEL
"My generation, as well as the many generations following behind us, has the chance to dismantle hate and bigotry, and replace it with love and respect, so that we all may be able to coexist, regardless of race, gender identity, or sexual orientation."
FIND OUT MORE ABOUT DENZEL

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Research Center

Advocates for Youth **SHOP**
Rights. Respect. Responsibility.

PROGRAM COMPONENTS

- ▶ HIV/STI and teen pregnancy prevention curriculum
- ▶ Twenty sessions, each lasting one class period, divided evenly over two years
- ▶ Experiential activities included to build skills in communication, delaying sex, and among sexually active youth, using condoms
- ▶ School health protection council
- ▶ Peer team or club to host school-wide activities
- ▶ Parenting education
- ▶ Links to community services
- ▶ HIV-positive speakers (optional)
- ▶ Educator training recommended

FOR USE WITH

- ▶ High school students in ninth and 10th grades
- ▶ Sexually inexperienced Hispanic youth
- ▶ Urban and suburban youth
- ▶ Multiethnic populations – including white, Hispanic, African American, and Asian youth
- ▶ Sexually experienced youth

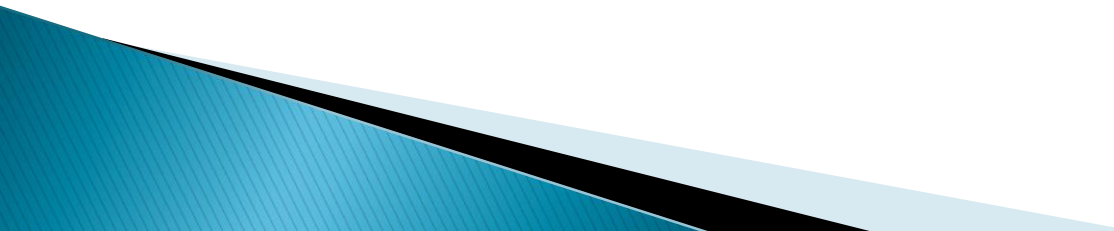
<http://www.advocatesforyouth.org/publications/1128-ss>

Leon County Success Story Implementing an Evidence-Based Curriculum

- Dr. Alan Cox,
Divisional Director for Professional Standards
Leon County School District
- Charlotte Bleiler, Science Teacher
Godby High School, Leon County School District

Why did you choose an evidence-based curriculum for implementation in Leon County High Schools?

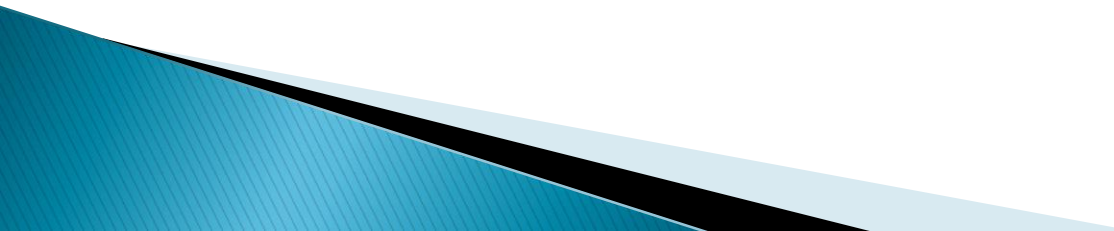
Consistent with curriculum choices in all areas

- Reading programs – only evidence-based
 - Substance abuse and other preventative education programs – only evidence-based
- 

How did the district make the decision to implement Safer Choices?

Consulted with DOE for vetted, evidence-based possibilities

Formed a Review Committee

- Health Professional
 - Classroom Teacher
 - School-based Administrator
 - District Administrator
 - Parent
- 

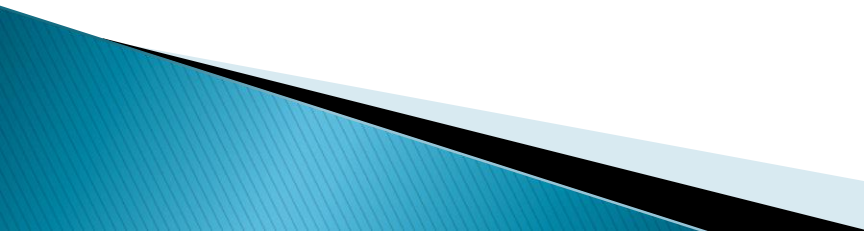
Why did the district choose to implement a sexual health curriculum through Biology?

No stand alone Health class at high school level

Health Opportunities through Physical Education (HOPE)

- Good, but taught by Physical Education teachers who shy away from sensitive health topics

ALL students required to take Biology

- Biology covers body systems and reproductive system
 - Biology taught in 8th, 9th, and 10th grades – early intervention
- 

How is the implementation progressing?


All Biology teachers trained

- 2 full days
- National trainer


All Biology students received information

- May – after course exams

What feedback have you received from teachers?

- To date, no survey of teachers
 - Positive after training
 - May was first time given to students
 - No negative from parents or groups
- 

Charlotte Bleiler, Leon County Science Teacher Godby High School,

- When did you provide the Safer Choices curriculum?
 - How many lessons were provided?
 - How did the students respond?
 - What is your overall opinion regarding implementation through Biology?
- 

Questions for Presenters



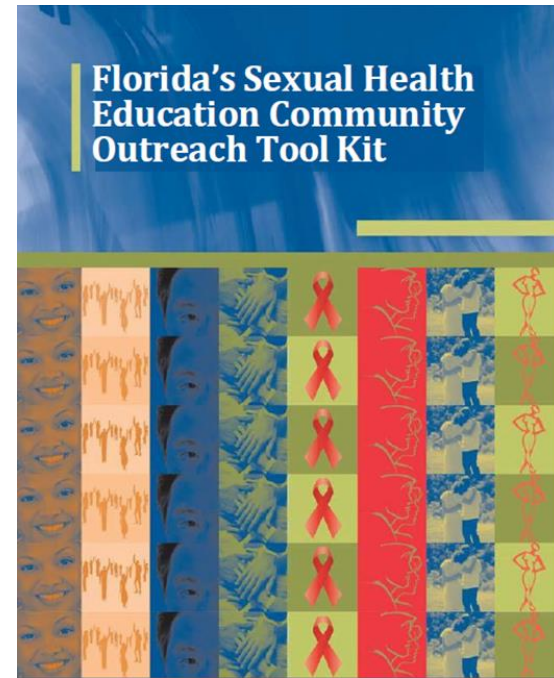
Sexual Health Education 101

Online Professional Development Workshop

- Offered online through PAEC's ePDC Learns Academy
- Free of charge to participants
- First come, first served basis
- For registration information contact, ksena.zipperer@fldoe.org
- Session ends on Friday, June 9, 2017.

Florida's Sexual Health Education Community Outreach Tool Kit

- Information and coalition building tool
- Many resources included



www.fldoe.org/schools/safe-healthy-schools/healthy-schools/sexual-edu/community-outreach-tool-kit.shtml

Office of Healthy Schools Summer Academy

- June 14–15, 2017, at the Safe Schools Institute in Boca Raton, FL.
- Online registration is \$60 per person and can be accessed via the Healthy Schools Summer Academy website, (www.healthyschoolssummeracademy.org/) March 10 through April 21, 2017.
- For more information, please contact the FDOE health education coordinator, Michelle L. Gaines, by email at Michelle.Gaines@fldoe.org or by phone at 850–245–0978.