


Healthy *Before* Pregnancy:
Pilot test results for a
preconception health
curriculum for high school
students in North Carolina

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Presenter disclosures

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- The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

No relationships to disclose




Learning objectives

1. Discuss the collaborative process used to develop and launch a comprehensive adolescent preconception health curriculum in public school systems
2. Describe the components of a comprehensive preconception health curriculum for high school students
3. Describe the tools that are useful in promoting preconception health with high school students





Background



Former identity

- The NC Folic Acid Campaign is a nationally recognized, award-winning campaign created to improve infant and maternal health by promoting the benefits and consumption of folic acid.



New identity



Campaign components

- Staff of 8
- Four regional coordinators around state provide:
 - Health care provider education
 - Consumer outreach
 - Peer health education
- Media and materials
- Dedicated Spanish-language campaign



Curriculum development: Formative research



Initial high school outreach

- In 2007, one Regional Coordinator visited over 35 high schools in central NC
- Provided education on:
 - Poor birth outcomes in NC
 - Birth defects
 - Folic acid/multivitamins
- Topics complement NC Standard Course of Study requirements
- Best fit in Family & Consumer Sciences courses



Goals of pilot project

- Expand presentation to include additional preconception health topics that fit our Campaign goals
- Test lesson plans with both teachers and students
- Revise lesson plans based on pilot testing
- Work with NC Department of Public Instruction to insert lesson plans into Standard Course of Study
- Ultimate Goal:
 - Consistent and sustained preconception health education by teachers in public high schools in North Carolina



Needs assessment

1. Regional Coordinator met with curriculum consultant
2. Survey administered to 24 Family & Consumer Science teachers who had received guest speaker "basic" presentation
3. Focus groups with 20 teachers to introduce curriculum concept and gain feedback
4. Drafted lesson plans
5. Two additional focus groups and plus key informant interviews with teachers to review draft versions of two lesson plans: Healthy Weight Matters and Reproductive Life Planning



Results

- "This content is really needed for our students!"
- Lesson plans can be used in several classes: Parenting, Child Development, etc.
- Teachers were relatively unaware of the issue of poor birth outcomes in our state and were interested in the content themselves
- Recommendations:
 - Align content with existing objectives of the Family & Consumer Science curriculum for NC
 - Content should not be too simple
 - Use lots of charts, graphs and pictures
 - Don't forget to make the classroom activities male-friendly





Healthy *Before* Pregnancy Curriculum



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Healthy *Before* Pregnancy

- Expanded existing presentation into 5 lesson plans that comprise the Healthy *Before* Pregnancy Curriculum
 - Pathways to Poor Birth Outcomes
 - Multivitamins - Take Them for Life
 - Healthy Weight Matters
 - Preventable Factors That Can Lead to Poor Birth Outcomes
 - Reproductive Life Planning
- Curriculum complements new NC legislation that allows comprehensive sex education in schools

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Curriculum overview

- Each lesson plan contains:
 - Teacher's guide
 - Goals and learning objectives
 - PowerPoint slides
 - Classroom group activities
 - Self-study exercises
 - Quizzes
 - Additional resources

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Student pilot sessions



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Student pilot sessions: Overview

- Campaign staff piloted 4 out of 5 lesson plans in classrooms
- 20 classes at 10 high schools
- Classes included: Family and Consumer Science, Parenting/Child Development, Foods, & Teen Living
- Lessons included a PowerPoint presentation and large group and small group classroom activities
- Students given pre & post tests to assess knowledge
- Discussions to solicit student feedback
- Written & verbal feedback from teachers

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Pathways to Poor Birth Outcomes (7 classes)

- Goal: Students will understand the pathways that lead to poor birth outcomes and health and lifestyle choices that can prevent such outcomes
- Pre-Test: High knowledge deficiencies regarding...
 - Leading causes of infant mortality
 - Racial/ethnic disparities
 - NC birth outcomes compared to other states
- Post-Test: Dramatic improvement in these areas & overall knowledge increases; also highlighted a few areas for lesson improvement

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Healthy Weight Matters (4 classes)

- Goal: To help students understand that a female's personal weight in adolescence and young adulthood can have an impact on the health outcomes of future (or present) pregnancies
- Pre-Test: High knowledge deficiencies regarding...
 - Racial/ethnic disparities
 - Relationship between income and obesity
 - Relationship between childhood overweight and adult obesity
- Post-Test: Dramatic improvement in these areas & overall knowledge increases; also highlighted a few areas for lesson improvement



Preventable Factors (5 classes)

- Goal: To help students understand health choices they make today can later impact the health of their future babies (smoking, drinking, medications, stress, nutrition and exercise)
- Pre-Test: High knowledge deficiencies regarding...
 - Neural tube defects and prevention
 - Connection between STIs and birth outcomes
- Post-Test: Dramatic improvement in these areas & overall knowledge increases; also highlighted a few areas for lesson improvement



Reproductive Life Planning (4+ classes)

- Goal: To help students plan for future "intended" pregnancies as part of their overall life plan in hopes of improving birth outcomes
- Pre-Test: High knowledge deficiencies regarding...
 - Teen pregnancy rates in NC
 - Racial/ethnic disparities in teen pregnancy in NC
- Post-Test: Dramatic improvement in these areas & overall knowledge increases; also highlighted a few areas for lesson improvement



Reproductive Life Planning

- Single most engaging lesson plan for students - highly receptive to this concept
- Students liked and understood term "reproductive life planning"
- Students worked hard on their own reproductive life plans/timeline



Student pilot key findings

- Students were highly receptive to all four lesson plans and eager for knowledge about these topics
- Lesson plans are engaging for males as well as females
- Materials are adaptable enough to accommodate different grade levels, both rural & urban schools, and both high & low resource schools
- Students surprised that pre-pregnancy health is related to birth outcomes and often reported that these lesson plans helped them connect the dots between now and later.
- "Adults always tell us what to do but they never tell us why. You told us why."



Next steps

- NC Adolescent Pregnancy Prevention Coalition Teen Council is reviewing all lesson plans
- Revise lesson plans and materials based on pilot feedback
- Create supplements on:
 - Contraception
 - Sexually Transmitted Infections
 - Preconception health for teen parents
- Adapt materials for other audiences including middle schools, community colleges and 4-year schools



More next steps

- Seek funding for broad implementation
- Continue to form relationships with school officials and teachers across the state
- Partner with Department of Public Instruction to permanently insert these lesson plans into NC Standard Course of Study
- Evaluate short and long term outcomes



Summary

- Successful high school presentations about folic acid and interest about preconception health led to development of a preconception health curriculum
- Extensive formative process with teachers informed what to include and how to include it
- Pilot testing with students allowed for further improvements to curriculum
- Ultimate Goal:
 - Consistent and sustained preconception health education by teachers in public high schools in North Carolina



Contact me

Thank you!!

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