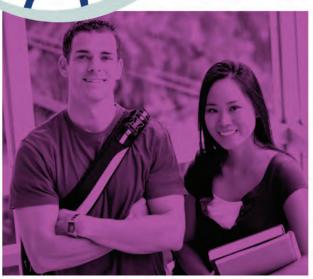# SMARTool

Systematic **M**ethod for **A**ssessing **R**isk-avoidance **T**ool

Assessing Potential Effectiveness for Sexual Risk Avoidance Curricula and Programs

developed by

The Center for Relationship Education

Educate · Equip · Empower

ACKNOWLEDGEMENTS

The core development staff was instrumental in framing the goals of the CDC collaboration and the needs of the sexuality education field to direct the core consultants and expert panel in developing the SMARTool.

1. Tammy Borgias identified and supported a broad panel of experts in the field of youth interventions to draw upon their collective expertise in the development of the SMARTool. Ms. Borgias gathered focus group input, monitored the SMARTool's development, and reviewed edited drafts of the document. Ms. Borgias is the Executive Director of The Center for Relationship Education (WAIT Training).

2. Joneen Mackenzie, RN, BSN, identified and invited experts to participate in Expert Panel meetings, assisted in facilitating focus groups and trainings and provided insight and expertise in document development. Ms. Mackenzie is the President/Founder of The Center for Relationship Education (WAIT Training).

3. Anna Vanderkleed coordinated communication with the core consultants and the research project consultant and managed the editorial input from the core consultants and expert panel. Ms. Vanderkleed serves as Project Director of The Center for Relationship Education (WAIT Training) collaborative agreement with CDC-DASH to develop the SMARTool.

4. Leslie Raneri, MSSW, MPH, LCSW, is a research project consultant who helped identify and incorporate relevant research into the SMARTool. Ms. Raneri has served as a grants manager and research consultant in the Office of Adolescent Pregnancy Prevention Programs in HHS/OPA and has a background in social work, public health, education, and evaluation. She was named as a 2006 finalist for The Society of Adolescent Medicine's Young Investigator Award.

TABLE OF CONTENTS

SMARTool

Systematic **M**ethod for **A**ssessing **R**isk-avoidance **T**ool

INTRODUCTION

Modern life presents young people with mixed and often risky messages about sexuality. How can parents, schools, communities, and faith-based organizations provide the type of sexuality education that helps youth and young adults understand and avoid sexual risks?

The Systematic Method for Assessing Risk-avoidance Tool (SMARTool) is a research-based tool designed to help organizations assess, select, and implement effective programs and curricula that support sexual risk avoidance. By systematically listing and explaining the key elements to be considered, the SMARTool can serve as a resource to curriculum developers and educators and offers methods for comparing different curricula to one another. By promoting research- and evidence-based components of sexual risk-avoidance programs and curricula, the SMARTool can also be used to improve the effectiveness as they are implemented.

The SMARTool addresses several common questions faced by organizations considering different sexuality education options.

First, **"WHY?"** Why is sexuality education important? Health, personal competencies, relationships, opportunities, and goals during the teen years often predict well-being and societal productivity in years to come. Sexual development, sexual health, sexual relationships, sexual risks, and parenting are important components of personal well-being.

We have learned that adolescents who avoid tobacco, drugs, and alcohol during their teen years are more likely to be free from addictions in adulthood.[1,2,3] We also know that sexually transmitted infections (STIs), non-marital pregnancies, broken relationships and divorce are more common among those who become sexually involved during early adolescence.[4,5] Avoiding health and personal risks in

adolescence is a desirable goal, but how can we help teens achieve it?

Well-designed interventions and discussions can improve health behaviors and outcomes. Effective sexuality and relationship interventions are characterized by clear goals, a focus on targeted behaviors, clear and consistent messages, strong educational methods, and accurate information.[6] The interventions should provide sufficient "dosage" to help learners develop the knowledge, attitudes, skills and intentions that are needed to avoid early sexual activity.

DEFINITION

For purposes of this document "sexual activity" is defined as voluntary intimate sexual (oral, anal, vaginal and genital) contact.

To facilitate the development and distribution of information

on effective youth programs, the Division of Adolescent and School Health (DASH) within the Centers for Disease Control and Prevention (CDC) proposed a competitive cooperative agreement to:

"Provide information, professional development opportunities, and technical assistance to enable organizations to conduct evidence-based abstinence education program planning through implementation of a state-of-the-art program planning tool that can help guide efforts in each of the following four domains: program planning, monitoring, and evaluation; assessment of the community environment; assessment of the educational environment; and educational content. A risk-avoidance strategy, not a risk-reduction strategy, is required.[7]"

In response, The Center for Relationship Education (WAIT Training) team and its expert consultants have systematically reviewed existing risk-avoidance research, defined components of effective programming, described critical areas of curricular development, and identified training processes that support sexual risk-avoidance programs. These results are compiled in this tool, which can be used to assess a variety of sexual risk-avoidance curricula and programs.

DEFINITION

In the CDC Health Education Curriculum Assessment Tool (HECAT) glossary, **risk-avoidance** curricula are defined as "curricula that have as their primary emphasis the avoidance of behaviors that lead to adverse health outcomes." **Risk-reduction** curricula are defined as "curricula that have, as their primary emphasis the reduction in frequency of behaviors that result in adverse health outcomes, or the adoption of additional behaviors that reduce the risk of adverse health outcomes."[8]

RECOGNIZING EFFECTIVE PROGRAMS

When parents, schools or communities invest their time, effort, and money into a youth program focusing on sexual risk avoidance, what are they hoping to achieve? Usually, the short answer is, "results"!

Several factors increase the chances of achieving results from a sexual risk-avoidance program. Programs that have been carefully observed and documented can help identify information and activities that affect youth behaviors. Consequently, research and evaluation of youth interventions provides information that indicates whether the entire program,

key program components, and/or program concepts are effective.

Some curricula have been formally assessed using a **scientifically designed evaluation.** An experimental design is the highest standard due to the greater capacity of these studies to establish cause-and-effect relationships in a valid and reliable way.[9] Quasi-experimental studies and nationally-representative longitudinal studies can also be valuable. The best evaluations:

⬎ include a large number of students;

⬎ compare intervention groups to similar groups who receive a different intervention and/or no intervention; and

⬎ measure targeted behaviors over time.[10]

Publication in a peer-reviewed journal can provide insights into the strength of an intervention or curriculum. Although formal evaluation of a program, intervention or curriculum is very valuable, many available curricula have not been formally evaluated, but contain evidence-based practices, tested behavioral theory and promising educational methods, strong behavioral interventions and appropriate learning content.[10]

The two basic categories pertinent to this discussion of effective youth interventions are evidence-based *programs* and promising approaches or evidence-based *practices:*

Programs that are evidence-based: have been formally evaluated, resulting in evidence that suggests the curriculum and/ or program increases the possibility of desired outcomes for a demographically similar target audience. Evidence-based programs often use a research design that compares participants in the intervention/ program to similar participants who did not receive the intervention or who received an alternate intervention.

One example of an effective intervention is described by Jemmott and Jemmott. A randomized controlled trial was used to compare a sexual abstinence intervention to three other intervention models. Those students in the abstinence intervention were less likely to have initiated sexual intercourse at the end of 24 months as compared to students receiving the other intervention models.[11] These findings, along with other studies, provide evidence that youth interventions can help adolescents delay sexual activity.[12,13,14]

Programs using promising approaches or evidence-based practices: contain components that are consistent with previously evaluated theories or methods that have been shown to improve outcomes. For example, promising approaches may use tested behavioral or educational theory in the curriculum and/ or program, target several important protective and risk factors affecting youth

sexual behavior, and use tested interventions strategies associated with the desired outcomes.[15,16,17]

DEFINITIONS

Evaluation - the process of measuring a curriculum's or program's effectiveness.[18]

Research - the process of determining causality between effective components of a curriculum or program in relation to specific adolescent sexual behavior outcomes.[18]

Risk factors - are determinants that encourage or promote a behavior which may lead to negative outcomes (e.g., early sexual debut, pregnancy, STIs, etc.)[19]

Protective factors - are determinants that either discourage behaviors that may lead to negative health outcomes or encourage behaviors that prevent them.[19]

Programs using behavioral and educational theories to improve effectiveness: A number of research-tested behavioral and educational theories have been used in risk-avoidance programming. Common elements across most of these theories include the recognition that:

- ↘ knowledge, attitudes, and beliefs are critical;

- ↘ personal skills are necessary in order to act on beliefs; and
- ↘ support systems (parents and community) are valuable to reinforce and achieve positive outcomes.[10]

Curricula for sexual risk-avoidance or abstinence education and youth development programs that are based on theoretical models such as Social Learning Theory, the Trans-Theoretical Model, Social Development Theory, the Theory of Reasoned Action, Social Norming and Social Inoculation Theory appear to strengthen program effectiveness.[10,20]

The SMARTool consists of four sections

PART I - PLANNING: The "Why, When, and Who" for Sexual Risk-Avoidance Programs

PART II - CURRICULUM: The "What and How" Targets for Sexual Risk-Avoidance Programs

PART III - QUALITY IMPROVEMENT: The "What's Working?" Quality Improvement Assessment

PART IV - COMMUNITY: The "Where" for Activities That Support Teens

The SMARTool (both the descriptive document and the associated "scoring grid") should be used to:

- identify community and program needs, goals and implementation processes;
- select a curriculum that corresponds to the program's target population and goals;
- assure that the targeted factors affecting youth sexual behavior are included in the program content;
- encourage the use of a wide range of effective educational methods for teaching;
- prompt the creative engagement of the community to support youth risk avoidance behavior; and
- use effective monitoring processes to assure efficient program implementation, effective and specific learner outcomes, as well as continuous program improvement.

Curriculum and Program

It is important to note the relationship between a "**curriculum**" and a "**program.**" A curriculum can be characterized as the central focus of a programmatic effort, providing the primary body of information and the recommended activities and teaching methods for presenting that information. However, curricula can fail or succeed based on the program support systems, facilitating activities, and, most notably, the staff selection and preparation used to implement them. [21] It is reasonable to consider the curriculum to be the "egg" within the programmatic "nest," or organizational structure that supports and implements the curriculum's message.

HOW TO USE THE SMARTOOL

The SMARTool provides guidance on both programs and curricula. Sidebars entitled 🔲 **Think About Your Program**, prompt considerations of important planning, implementation, or evaluation needs within your organization or community. 🔲 **Curriculum Considerations**, are found at the conclusion of each part and summarize important curriculum components. Each curriculum that is being considered should be assessed for alignment with that section's content.

To use the SMARTool to assess one or more curricula, follow these steps:
- Ideally, secure at least three reviewers for each curriculum under review.
- Read each part of the SMARTool, with its associated checklists and questions.
- Read the proposed curriculum to gain familiarity with its educational goals, format, and content.
- Use the checklists and questions provided in the SMARTool Scoring Grid in the appendix to help gauge the degree to which each curriculum meets your organization's goals.
- Discuss reviewers' Scoring Grid ratings, scores, and conclusions to reach consensus on the relative strengths and weaknesses of each curriculum being considered.
- Once a curriculum has been selected, use the 🔲 **Think About Your Program** checklist to identify community activities that could augment program effectiveness as the curriculum and program are implemented.

PART I – PLANNING: The "Why, When, and Who" for Sexual Risk-Avoidance Programs

Planning is critical when preparing to select or modify a sexual risk-avoidance or abstinence program for a community or school organization. When an organization considers its specific goals, needs, and processes, it will be better prepared to develop programs and select curricula.

"WHY" – Establishing Goals and Direction

The program goal will determine the selection of short-term behavior and knowledge objectives, as well as the selection of curricula and activities. Goals may be related to school concerns (such as the impact of teen parenting on drop-out rates),[22] or the incidence of sexual harassment or assault in school,[23] and/or student concerns (such as the incidence of STI or teen pregnancy). Future outcomes, such as preparation for healthy relationships and family formation or perceived lack of future options also can inform goals.[24,25]

Educators and program leaders knowledge of their target audiences creates the foundation for program goals. Essential considerations for the target audience include the age range served; their language, educational and cultural backgrounds; and their socioeconomic and family structure patterns. Information regarding current baseline sexual attitudes, behaviors and outcomes (e.g., teen pregnancy or STI rates) can be informative for program planning and implementation.

Some communities or school districts encompass a wide range of students from very different populations, each with its own unique needs and strengths. This necessitates careful selection of goals, materials, personnel, and activities that are relevant to the target audiences served, yet adaptable to a wide variety of students.

Identifying Expectations

Families, schools, communities, and societies strongly influence children and youth through their expectations. These expectations can be protective by creating and supporting healthy behaviors, or they can be negative, allowing health risks. Expectations often materialize based on goals and may strongly influence the behavior of students, teachers, organizations, or schools.

For example, the goal of reducing vehicular deaths led to the expectation of seat belt usage,[26] resulting in fewer automobile injuries and deaths.[27] The goal of improved opportunities for youth leads to the expectation of school completion, resulting in higher graduation rates.[26] Expectations often predict outcomes, whether it is a parent expecting chores to be completed or a society expecting volunteerism.[28,29] On the other hand, parental expectations of teen risk-taking behavior may predict the degree to which their teens participate in risky behaviors.[30]

Most sexual risk-avoidance educators share the goal or expectation that youth are capable of understanding the risks of early sex, capable of choosing to delay sexual activity and capable of establishing strong, faithful future families. Some programs may anticipate or expect early sexual activity, and focus primarily on preparing teens for safer sexual experiences during adolescence. The goals and philosophy of the sponsoring organization

are often translated into program design and curricular implementation.[31] Accordingly, student perception of program goals and expectations may be a factor in program and behavioral outcomes.

Developing a Logic Model

Effective programs use logical steps to determine goals and move learners to those goals. A visual depiction of this process is sometimes referred to as a logic model and is used to help answer four very important questions:

A. What program goals do we wish to achieve?

B. What behaviors can help achieve those goals?

C. What risk and protective factors affect these behaviors?

D. What activities, interventions, and interactions can improve these factors?[32]

The use of a logic model can help programs articulate goals and identify logical steps in program development.[33] A portion of a simplified sample logic model for a sexual risk-avoidance program is highlighted below. Please see the appendix for the full sample logic model as well as a template for your program's use. A useful guide to developing logic models can be found at: www.cdc.gov/eval/resources.htm#logicmodel.

THINK ABOUT YOUR PROGRAM

↘ Who is the target audience?

↘ What are the goals that the sexual risk avoidance program intends to achieve?

↘ What youth behaviors can help achieve those goals?

↘ What youth risk and protective factors affect those behaviors?

↘ What activities, interventions, and interactions can improve these protective factors?

↘ What knowledge, attitude, intent, and behavior changes are expected in youth during or after participation in the program?

SAMPLE LOGIC MODEL*

D. Activities, Interventions and Interactions	C. Factors Affecting Behaviors	B. Behavioral Goal	A. Program Goal
Models and practice of role playing and negotiation skills to refuse sex	Increase self-efficacy to refuse sex	Teens will: ↘ Delay sexual activity ↘ Discontinue sexual activity, sexual coercion and sexual abuse	↘ Decrease number of sexually active teens ↘ Reduce teen pregnancy and STIs rates ↘ Increase the proportion of youth who are prepared for healthy adult relationships, marriage and safe and stable family formation

Moving Towards Program Goals

* A full sample logic model is included in the appendix along with a template for your program's use.

"WHEN" – Time and Intensity

A generation ago, when schools and community groups began to address risk behaviors, many interventions were designed to promote knowledge, assuming that when youth or adults became aware of potential consequences, behavior change would occur. Many isolated "assemblies" on drugs, violence, STIs, and other risks were held. Some of these 40-minute interventions may have improved health choices, but as research began to track adolescent behaviors, it became clear that enduring behavior change was rarely associated with brief, isolated activities that primarily focused on increasing knowledge.[10] To achieve behavior change, sexuality and relationship education must offer more than a brief, one time presentation of facts.

How much time does your school or organization need to invest in sexual risk avoidance programming? Research regarding risk-avoidance interventions and related fields indicates that effective programs often are characterized by sufficient length of time and intensity (dosage), offer multiple sessions per grade, span multiple grades, and target or begin with younger populations when possible.[34,35,36,37,38,39,40] Effective programs often describe a minimum of 6-10 consecutive program sessions with "booster" events (such as homework, refresher programs, and parent events) that are more likely to demonstrate changes in knowledge, attitudes, and intentions.[11, 40, 41, 42, 43] Vulnerable or higher risk populations may benefit from more intensive and longer interventions.[35, 44]

Flexibility and Sustainability

Investing in a curriculum involves much more than a financial decision for educators and program personnel. It is optimal to select a product that offers cost-effective updates and additional teacher training and resources, as well as assures coordinated learning materials across grade-levels.

In addition, some curricular sources provide links to curriculum designers for advice on the use of materials for special situations or populations. Some curriculum providers send updates on medical or scientific information as data become available.

Many communities seek materials to supplement existing educational programs that may already have been adopted by the school or organization. For example, some schools may offer health education that includes information on puberty, but does not contain lessons on risk avoidance, healthy relationships, resistance skills or preparation for future marriage and parenting. Although most curricula are best used in their entirety, some curricula may be adapted to address the greatest needs of the target population as well as the educational environment.[45]

"WHO" – Staff Selection and Training

Staff selection, professional development, and curricular training are critical to teaching risk-avoidance sex education.[46] The use of credible and respected messengers has been shown to enhance attitude change and improve the possibility of behavior change.[47] School-aged youth appear to be more receptive to the messages of abstinence education programs when teachers, facilitators, and staff members convey their understanding of the benefits of delaying sexual activity, have the tools they need to communicate those benefits, and personally support the message.[48]

Program administrators have an important role to play in creating the optimal environment for sexual risk-avoidance programs. The leadership can provide support for implementation of the curriculum and involvement of all personnel and organizational activities.

SYSTEMATIC METHOD FOR ASSESSING RISK-AVOIDANCE TOOL (SMARTool)

Staff and teachers need to ensure that they are working to create a nurturing environment that supports youth and makes them feel valued.[49,50] In-service training for all program staff or all school faculty members can inform personnel of program goals and may strengthen support for the delay of sexual activity among youth.

CURRICULUM CONSIDERATIONS

1. Is the curriculum consistent with your organizational goals and does it address the steps needed to meet those goals?
2. Has the curriculum under consideration been formally evaluated and shown to have affected behavior change on some or all of the targets evaluated?
3. Does the curriculum use promising approaches reflecting evaluated interventions or curricular content?
4. Does the curriculum demonstrate a sound model of changing knowledge, attitudes, skills, intentions, and behavior consistent with accepted behavioral and educational theories?
5. Does the curriculum address specific steps needed to meet those goals? *(Note: Consider using a logic model to assess the relationship between steps and goals.)*
6. Does the curriculum offer adequate dosage — for example, multiple sessions per grade, and sessions for multiple grade levels?
7. Do high-risk populations have an opportunity for more intensive interventions or lesson sessions?
8. Does the curriculum integrate with and supplement other health or character-based education in the school or organization?
9. Is the curriculum flexible and inclusive to address learner needs across varied demographic student groups?
10. Is the curriculum flexible to meet or complement program needs based on coordination with existing health education requirements and time constraints?
11. Does the curriculum provide guidance for identifying teaching staff who are comfortable with and supportive of the sexual risk avoidance message?
12. Does the curriculum developer provide teacher training through workshops, conferences, or other venues to improve knowledge and skills?
13. Are materials available to provide in-service training for all organization personnel?
14. Are content updates and curricular experts available to assure continuous improvement?
15. Are teacher materials, supplemental resources, and lesson plans easy to use and appropriate for effective lessons?

PART II – CURRICULUM: The "What and How" Targets for Sexual Risk-Avoidance Programs

Nine protective factors have been identified through research as appropriate targets for sexual risk avoidance curricula.[19, 20, 43, 51,52] Targets that correspond to protective factors that affect the sexual behaviors of youth include:

1. Enhance the knowledge of:
   a) physical development and sexual risks, and
   b) healthy relationships.
2. Support personal attitudes, and beliefs that value sexual risk avoidance.
3. Acknowledge and address common rationalizations for sexual activity.
4. Improve perception of and independence from negative peer and social norms.
5. Build personal competencies and self-efficacy to avoid sexual activity.
6. Strengthen personal intention and commitment to avoid sexual activity.
7. Identify and reduce the opportunities for sexual activity.
8. Strengthen future goals and opportunities.
9. Partner with parents.

How should sexuality and relationship education messages be delivered? Teaching techniques that promote personal discovery in learning will allow the learner to receive new information, recognize its value to him or her personally, and apply the information.[53] Innovative risk-avoidance programs have developed numerous ways to engage youth, often by pairing targeted behaviors with effective pedagogical methods.

In the past 15 years, both programs and curricula have changed significantly. Educational targets have changed from information-only to important insights, personal competences, and specific skills. The format and educational methods have transitioned from primarily lecture-based models to multiple, varied interactive learning activities.

The transition to multiple methods is evident in the table on the following page: "Educational Methods to Target Specific Factors." This table provides insight on educational techniques used by a sample of abstinence curricula that have demonstrated effectiveness by achieving strong pre-/post- intervention changes on the following targets: attitudes, beliefs and values, intention to abstain, and self-efficacy.

All these scales have been shown to predict sexual initiation.

This review of curricula confirms that many curriculum providers are using a variety of educational methods to teach each target. For example, to "build personal competencies and self-efficacy to refuse sex," 7 of 9 curricula used lecture, 9 of 9 used refusal skills and role play, 6 of 9 used object lessons and 6 of 9 used discussion. Similar patterns were noted for many of the targets. In the future, research may indicate which targets combined with specific educational methods are the most effective to achieve changes in attitudes, skills, and behaviors. Descriptions or definitions of frequently used educational methods are found in the appendix.

In addition to effective targets and innovative educational methods, programs need to identify the other important systems of family and community support to help adolescents delay sex. Please refer to Part IV for suggestions on how to involve parents, community organizations, health providers, faith organizations and media to support a successful program.

The table below represents a curricula review of educational methods used to address targeted factors. A convenience sample of nine evaluated abstinence education curricula (student and teacher materials) was reviewed. Results demonstrate that a curriculum may use a variety of educational methods to target specific factors that affect adolescent sexual behavior. Some curricula developers may offer products that provide additional resources (e.g. partnering with parents).

"Educational Methods to Target Specific Factors" Table

EDUCATIONAL METHODS

SPECIFIC FACTORS	Lecture	Work Sheet	Media	Discussion/ Q&A	Ref. Skills/ Role Play	Games	Drama	Essay	Object Lesson	Story	Personal Commitment
1A ▸ Physical Health Facts											
1B ▸ Relationship Knowledge											
2 ▸ Attitudes, Beliefs, Values											
3 ▸ Rationalization for Sex											
4 ▸ Independence from Norms											
5 ▸ Self-Efficacy											
6 ▸ Intention to Abstain											
7 ▸ Opportunity to Have Sex											
8 ▸ Future Goals											
9 ▸ Partner With Parents											

KEY

1A ▸ **Physical Health Facts** - Enhance the knowledge of physical health development and sexual risks
1B ▸ **Relationship Knowledge** - Enhance the knowledge of healthy relationships
2 ▸ **Attitudes, Beliefs, Values** - Support personal attitudes, and beliefs that value sexual risk avoidance
3 ▸ **Rationalization for Sex** - Acknowledge and address common rationalizations for sexual activity
4 ▸ **Independence from Norms** - Improve insight on and independence from negative peer and social norms

5 ▸ **Self-Efficacy** - Build personal competencies and self-efficacy to refuse sex
6 ▸ **Intention to Abstain** - Strengthen personal intention and commitment to avoid sexual activity
7 ▸ **Opportunity to Have Sex** - Identify and reduce the opportunities for sexual activity
8 ▸ **Future Goals** - Strengthen future goals and opportunities
9 ▸ **Partner with Parents** - Partner with parents

9 TARGETS FOR SEXUAL RISK-AVOIDANCE CURRICULA

TARGET ①

Enhance knowledge of a) physical development and sexual risks and b) personal relationships

The most commonly incorporated topics in sexual risk-avoidance programs are medical (health) and relationship information.[21] In addition, sexual risk-avoidance interventions and relationship programs often include goals related to planning for personal success, equipping for healthy relationships, and preparing for future marriage and parenting.[54]

Early sexual risk-avoidance programs, (similar to alcohol, drug and tobacco risk interventions) were focused on providing knowledge of negative outcomes, such as serious infections and poor pregnancy outcomes. The next generation of interventions began to address more of the factors that increased susceptibility to risk behaviors. Some newer curricula promote themes across lessons and topics, such as self-worth, planning for a successful future, character development, and self-sufficiency.[54] Themes should reinforce the program's risk

avoidance message and should be strong, clear, consistent, and focused on the target population.[10]

Topics should be age-appropriate as well as scientifically accurate. Many states, some national organizations (such as CDC) as well as other academic, educational, and medical organizations have developed age- or grade-appropriate topics that are relevant to the discussion of sexual risk avoidance. In order to assess common themes, the following guidelines were examined:

NATIONAL STANDARDS
↘ CDC Health Education Curriculum Assessment Tool (HECAT), Sexual Health Module
↘ National Health Education Standards
↘ National Science Education Standards

MEDICAL STANDARDS
↘ Medical Institute's Guidelines for Sexual Health Education (K-12)
↘ Scott & White Hospital (Texas A & M University Health Science Center, Teaching Hospital) Sex Education

Program, Scope and Sequence Standards

STATE STANDARDS
↘ Colorado State Comprehensive Health Education Standards
↘ Michigan Health Education Content Standards and Benchmarks
↘ Pennsylvania Department of Education State Health Standards

The grid on the following page provides a summary of the most common topics by grade level. Some standards focus primarily on physical development. However, most include healthy relationships, refusal skills, and STIs. Legal topics such as protections regarding sexual assault and coercion, child support, and sexual offender laws have been added in some standards. These existing standards can provide a framework for schools and programs as they develop, enhance or assess their sexual risk-avoidance or abstinence education programs. References for these published age-appropriate guidelines can be found in the appendix.

Review of Published Age-Appropriate Topics
Eight sets of health and science education standards were assessed to determine common themes for sexuality education.

	UNIVERSAL TOPICS Present in 6-8 Standards	COMMON TOPICS Present in 3-5 Standards
6TH-7TH GRADE*	↘ STIs and HIV/AIDS ↘ Other adolescent risk behaviors (alcohol, drugs, and tobacco) ↘ Decision making ↘ Refusal and negotiation skills ↘ Media and internet influences	↘ Introduction to pubertal development and reproductive anatomy ↘ Conception and pregnancy ↘ Values, beliefs, and attitudes ↘ Goal setting ↘ Commitment to abstain ↘ Connection to parents/family (relationships, influence, and support) ↘ Healthy and unhealthy relationships ↘ Effective communication ↘ Sexual exploitation, coercion, and assault ↘ Sexual harassment, personal violence, and date rape prevention
8TH GRADE	↘ STIs and HIV/AIDS ↘ Refusal and negotiation skills	↘ Introduction to pubertal development and reproductive anatomy ↘ Conception and pregnancy ↘ Contraception ↘ Other adolescent risk behaviors (alcohol, drugs, and tobacco) ↘ Values, beliefs, and attitudes ↘ Goal setting ↘ Decision making ↘ Commitment to abstain ↘ Connection to parents/family (relationships, influence, and support) ↘ Healthy and unhealthy relationships ↘ Effective communication ↘ Media and Internet influence ↘ Sexual exploitation, coercion, and assault ↘ Sexual harassment, personal violence, and date rape prevention
HIGH SCHOOL	↘ STIs and HIV/AIDS ↘ Other adolescent risk behaviors (alcohol, drugs, and tobacco) ↘ Decision making ↘ Goal setting ↘ Connection to parents (relationships, influence, and support) ↘ Connection to peers (relationships, influence, and support) ↘ Effective communication ↘ Media and Internet influence ↘ Sexual exploitation, coercion, and assault	↘ Pubertal development and reproductive anatomy ↘ Conception and pregnancy ↘ Contraception ↘ Values, beliefs, and attitudes ↘ Healthy and unhealthy relationships ↘ Refusal and negotiation skills ↘ Sexual harassment, personal violence, and date rape prevention ↘ Parental responsibilities and child support

* Guidelines assumed that the information builds upon each grade level. For example, 6th-7th grades start with a basic overview and there is a progression of information and detail through high school. In addition, some themes may also be addressed in science standards.

Scientific and Medical Accuracy

Since scientific inquiry is applied to a wide spectrum of medical, social science, health, and basic science fields, risk-avoidance programming may draw upon a wide variety of scientific resources that are consistent with the program's goals. The universal standard of health, medical, relationship, and science education should be to assure that information is accurate and up-to-date.

Scientific and medical accuracy refers to the appropriate use of available evidence-based, peer-reviewed findings and includes the following standards:

↘ Is consistent with high-quality, scientific studies that have been reviewed by a group of peer researchers or scientists;

↘ Acknowledges the primary source of the information (i.e., the original research), not simply secondary sources or organizational reviews;

↘ Is consistent with expert opinion when that opinion is based on extensive, replicable, high-quality research (as contrasted to general policy statements adopted by organizations);

↘ Avoids using the information to infer causality, general-izations, or outcomes not supported by the science;

↘ Relates appropriately to the target audience or age group (i.e., findings on adults are not assumed to represent potential adolescent findings);

↘ Uses language and examples that clearly and accurately describe the scientific findings and their relation to health, medical, personal, or social outcomes.

In addition to high-quality scientific journals, sources of information pertinent to risk-avoidance programs may include data from the National Institutes of Health, CDC, or other recognized sources. *Contraceptive Technology*[55] and *Infectious Disease Red Book*[56] are examples of industry-wide reference sources. Commonly available textbook information that is consistent from source to source is considered scientifically and medically accurate. Examples could include topics such as reproductive anatomy, pubertal changes, pregnancy, and descriptions of common STIs.

Applying scientifically accurate information can challenge both the curriculum developer and users. For example, data that were known about an STI at the time of writing and publication may be outdated within 5-10 years. Incidence rates, treatments, and outcomes can vary as improvements in management or data collection occur. This is especially true when the body of research is relatively new or limited in scope. Consequently, both the writers

and users of data in educational materials or activities should strive to clarify sources of information, provide updates on data as appropriate, and equip educators to secure additional information independently.

The concept of scientific accuracy is pertinent to all topics covered by the selected curriculum; however, it does not extend to topics beyond the scope of the desired course of study. For example, treatment options for pregnancy complications, condom use demonstrations, or medical management of STIs may be outside the scope of a risk-avoidance program.

The presentation of facts should reflect a balanced, objective statement of findings. Unqualified statements that either exaggerates or under-estimates risk can create inaccurate perceptions that may lead to poor health choices.

Emerging fields of research — whether in social sciences, education, medicine, or adolescent development — may not be fully understood due to a limited number of studies or new methods of research. As a general rule, if these newer fields are addressed, there should be clear statements or caveats regarding the novelty of the concepts and the limited availability of supportive research.

📇 CURRICULUM CONSIDERATIONS

1. Does the curriculum address appropriate topics for the age-group and target population?
2. Does the material presented maintain a clear and consistent risk avoidance approach regarding sexual activity and other risks?
3. Does the curriculum meet state and/or local health education standards?
4. Do the content areas of the proposed curriculum address the requirements of funding or regulatory agencies?
5. Does the curriculum personalize the potential negative impacts of sexual activity (such as pregnancy, STIs, emotional, social or relationship problems, etc)?
6. Are sources of scientific, medical, social science and health information either commonly available in multiple books and texts (e.g., anatomy, established physiology, development) or documented by site of original research or source?
7. Are further sources of information provided for teachers to obtain additional reliable data if appropriate?
8. Is the presentation of facts balanced and objective?

TARGET ②

Support personal attitudes and beliefs that value sexual risk avoidance

Attitudes and beliefs often determine how individuals assign importance to ideas, activities, and other people all of which consequently influences behavior.[19] Evaluative data suggests that programs are more successful when the curricula and personnel directly promote attitudes and beliefs that value the delay of sexual activity. Attitudes and beliefs are factors that predispose individuals and communities to adopt or modify values which can impact health behaviors.[57]

Beliefs are personal opinions that are accepted as true or real, important, beneficial, right or wrong, healthy or unhealthy.

Attitudes help individuals identify what knowledge is important to them or their environment, and often determine whether individuals will act on specific information.

Values are the accepted principles or standards of a person or group. When personal or societal values support choices, those choices have more meaning and are more likely to become enduring behaviors.

Since communities as well as individuals possess unique characteristics, it is important for programs and teachers to target messages to address the population's attitudes and beliefs.[58] Students should receive relevant information delivered in a compelling manner by a trusted messenger.

In order to strengthen the attitudes that value sexual risk avoidance, programs should present arguments that:
↘ Define desirable outcomes;
↘ Associate undesirable outcomes with known possible causes;
↘ Communicate in a manner that is familiar to the learner;
↘ Are relevant and important; and
↘ Present the information in a new and compelling manner as contrasted to arguments heard many times.[20,59]

Negative Consequences and Fear

When presenting desirable and undesirable outcomes, one method to solicit attitude change is to create an awareness of possible negative consequences. Creating concern or fear has been employed to create awareness in many public health campaigns and educational programs.

All educators have observed the use of mangled vehicles as an object lesson to discuss driving under the influence of alcohol or drugs. Likewise, images of lakes or rivers polluted with debris are triggers to discuss environmental health. Models of blackened, diseased lungs focus awareness of the damage caused by smoking. Despite the common use of negative information in health awareness programs, some observers have criticized the use of fear in sex education programming.

As noted by Douglas Kirby in *Reducing Adolescent Sexual Risk: A Theoretical Guide for Developing and Adapting Curriculum-Based Programs*:[20]

Use of Fear in Messages to Change Attitudes and Values

Although there has been some debate about the impact of fear in messages, there may be a growing consensus about its effects. If messages do not increase fear of possible negative consequences at all, then they may not be effective. If messages increase fear too much without providing a clear method of avoiding the feared outcome, then fear may cause people to ignore the message or to become paralyzed with inaction. What is most effective is a reasonable combination of fear arousal presented with clear achievable directions for how to avoid the negative outcome.[60]

Most curricula address negative consequences that may be associated with STIs, teen pregnancy, intimate partner violence or other issues. An appropriate use of fear associated with attitude change, combines accurate information with a clear message about the best ways to avoid undesirable outcomes. The inappropriate use of fear could occur if frightening outcomes were described without clearly depicting ways to avoid them. Likewise it is essential that the curriculum, program and personnel show sensitivity to those teens who may have already experienced negative outcomes that can be attributed to their situations and/or behaviors.

Social Standards and Values

Values often predict teen sexual activity. The single most common reason that young people give for not having sex is that it is against their values. Consequently, personal and social standards are important to any sexual risk-avoidance program. Social values or standards that are accepted in a community or society often are based on perceived personal as well as societal benefit. Several values are increasingly recognized as universal. Trustworthiness, respect, responsibility, caring, courage and other similar attributes are described in character education and frequently used in both secular and non-secular settings.

In many schools and communities, a substantial gap persists between desired social standards and the current status. In fact, sometimes values identify where we want to go, even if that destination may not be close to where we are. For example, even if a high school is experiencing a high drop-out rate, there is accepted value in promoting graduation as a goal.

The Youth Risk Behavior Survey (YRBS) is an effective tool to identify behaviors that create risks, such as adolescent sexual intercourse and teen alcohol and drug use.[61] Communities monitor the YRBS to identify

trends for specific risk behaviors and to respond by promoting standards and interventions that decrease those risks. Similarly, the Healthy People 2010 Initiative promotes health standards that can be monitored over time.[26] (See the side bar at the bottom of this page for examples.)

Communities that have a significant problem with early sexual activity, STIs, teen parenting, and sexual assault can benefit from information that promotes delay of sex and return to abstinence. Several studies indicate that sexually experienced teens are often receptive to this value, even if it is not the current community standard.[11, 41, 42, 62]

Some groups or individuals have expressed concern that identifying a standard or value for sexual behavior is judgmental or shame-based. This concern is contrasted to complaints that some forms of media and sex education are overly permissive and value-free, consequently lacking standards that protect the individual and society.

Demographic, epidemiologic, and research data are available regarding societal outcomes of behaviors often associated with teen sexual activity, especially teen and single parenting, intimate partner violence, and multiple sexual partners.[63,64,65] Curricula that identify the research-documented benefits of healthy relationships, faithful marriage and effective parenting are not moralistic. These lessons can offer insights and strategies, even to teens who have not experienced those benefits in their personal lives.[44] Curricula chosen for implementation should address standards and values in a fair, factual and direct manner.

One educational method to help learners recognize values and standards is to create cognitive dissonance. This term has been used to describe the anxiety that results from an inconsistency between an individual's recognized values and a chosen action or response.[66] For example, some adolescents may value honesty or faithfulness, yet select behaviors that are dissonant from that value. One method of influencing attitudes, values, and beliefs is to create a learning situation that allows students to recognize the importance of aligning core values with their day-to-day behaviors.

The Youth Risk Behavior Survey (YRBS) monitors a wide variety of health risk behaviors, including the following adolescent sexual health risks:[61]

↘ Students who have ever had sexual intercourse

↘ Students who have had sexual intercourse for the first time before age 13

↘ Students who have had sexual intercourse with four or more persons in their life

↘ Students who have had sexual intercourse with at least one person during the last 3 months

Examples of Healthy People 2010 Objectives[26]

9-9 Increase the proportion of adolescents who have never engaged in sexual intercourse.

9-7 Reduce pregnancies among adolescent females.

15-34 Reduce the rate of physical assault by current or former intimate partners.

15-35 Reduce the annual rate of rape or attempted rape.

1-3 Increase the proportion of persons appropriately counseled about health behaviors.

9-6 (Developmental) Increase male involvement in pregnancy prevention and family planning efforts.

CURRICULUM CONSIDERATIONS

1. Does the curriculum include exercises that help students recognize and evaluate attitudes in their school, home, community, and media?
2. Does the curriculum present information in a relevant and compelling manner that has the potential to change attitudes and beliefs?
3. Does the curriculum use fear of negative outcomes in an appropriate manner (i.e., showing how to avoid negative outcomes) to equip students to avoid risks?
4. Does the curriculum develop and display character traits that are consistent with universal values (i.e. trustworthiness, respect, responsibility, caring, courage, etc.)?
5. Does the curriculum help students value the avoidance of adolescent sexual activity?
6. Does the curriculum help students increase their value of commitment, marriage, and healthy family formation?
7. Does the curriculum provide a basis for students to identify and/or communicate their core beliefs regarding the meaning of sex in their personal, family, cultural, and spiritual lives?
8. Does the curriculum provide an opportunity for students to recognize any cognitive dissonance between core values and prevalent sexual attitudes, intentions, or behaviors?

TARGET ③

Acknowledge and address common rationalizations for sexual activity

Individuals may rationalize sexual behaviors based on reasons such as being in love, gifts or money spent, the hope that having sex will keep a boy- or girl-friend, taking precautions (safer sex or contraception), or the belief that having sex proves "I'm needed," "I'm popular," "I'm curious," "I am attractive." Teens may justify sexual experiences based upon these short-term perceptions. To counter them, curricula can help foster greater awareness of the disadvantages of these short-term choices and promote the importance of delaying sex.[67]

Previous sexual experience (voluntary or involuntary) can be used to justify continued sexual activity. Many teens express regret over early sexual experiences and may appreciate support and guidance to establish a paradigm for sexual risk avoidance in the future.[68,96] If adolescents have experienced an episode of serious alcohol intoxication or drug overdose, the best goal of intervention may be alcohol or drug

CURRICULUM CONSIDERATIONS

1. Does the curriculum help learners recognize common rationalizations that teens use to become sexually involved?
2. Do learning exercises or scenarios help students recognize that justifications for sexual activity fail to reduce potential adverse consequences?
3. Does the curriculum help students develop and practice skills to respond to common rationalizations for teen sex?
4. Does the curriculum assist sexually experienced youth to understand the reasons and develop skills to avoid continued sexual activity?

avoidance, not rationalization for future binges. Likewise, the assumption of continued sexual activity for sexually experienced teens may undermine personal value, especially for those who have felt exploited or coerced.

Effective curricula help learners comprehend that common justifications fail to modify potential adverse physical, personal and social outcomes.[69] If learners recognize common rationalizations regarding sexual activity, they are more likely to be equipped with insights when confronted with sexual pressure. Effective curricula can help youth delay initiation of sexual activity as well as equip sexually experienced teens to avoid continued sexual activity.[11, 41, 43]

TARGET ④

Improve perception of and independence from negative peer and social norms

Adolescents are influenced by peers. Many decisions and behaviors may be determined by their perception of the activities of their friends, their understanding of socially accepted conduct, and their desire to conform to perceived social norms.[70] Positive peer norms can provide support for teens to successfully avoid health-risk behaviors including early sexual activity.[71] Some perceptions may not be related to actual peer norms, but reflect media depictions of adolescents.[72,73]

Youth spend a very large and increasing proportion of their waking hours exposed to media messages and sources;[74] such exposure is associated with initiation of sexual activity and adolescent pregnancy.[73,75,76] Curricular lessons can help students improve their awareness of positive and negative peer pressure, including media depictions of peer sexual behavior.[77] This insight may provide a basis for independent thought and action.[20,78]

Independence or self-sufficiency is the ability and confidence to regulate oneself when responding to peer and social pressures. Many adolescents welcome the opportunity to develop independence, including personal skills of decision-making and behavior management. Successful programs should assist the learner in recognizing and developing the role of individual thought and action when confronted with sexual and other risk decisions.

CURRICULUM CONSIDERATIONS

1. Does the curriculum provide activities for students to consider positive and negative peer perceptions regarding sexual and other risk behaviors?
2. Does the curriculum provide an opportunity for students to consider positive and negative media perceptions regarding sexual and other risk behaviors?
3. Does the curriculum illustrate positive peer norms?
4. Does the curriculum promote the confidence and skill to resist negative pressure from peers?
5. Does the curriculum teach, demonstrate and practice the skills of independent decision-making related to avoiding sexual activity?

TARGET ⑤

Build personal competencies and self-efficacy to avoid sexual activity

Self-efficacy is the capacity to demonstrate self-respect and practice self-protective behaviors, even in difficult situations. Effective curricula help students recognize their personal worth and improve critical thinking, protective negotiation, and refusal skills when confronted with sexual decisions.[10,79] The ability to establish and maintain personal boundaries is part of the competency to avoid sexual activity, whether that means resisting sexual coercion or avoiding sexually charged situations. The personal competency to avoid sexual activity includes the ability to determine, explain, and defend why a person does what he or she does.[80]

Negotiation and refusal skills are essential for teens to avoid behavioral risks, including sex. These skills require training and practice. In some ways this training resembles the Basic Life Support training offered to health professionals and the public.[81] If students are provided multiple scenarios and examples that allow them to practice exercising these new abilities, they are more likely to employ the competency when the need arises.[10] Programs can help youth anticipate sexual challenges and identify ways to address and thwart those challenges.

TARGET ⑥

Strengthen personal intention and commitment to avoid sexual activity

Intentions are important precursors to both positive and negative behaviors.[82] The degree to which they affect behavior can depend on three primary factors: the strength of the intentions, the skills of the person to follow his or her intentions, and environmental support.[20]

A number of techniques have been used to strengthen commitment to a principle, behavior or relationship. For example, a driving contract between teens and their parents is now used frequently by families to clarify expectations, responsibilities, and behaviors.[83,84,85] Environmental pledges have been developed to encourage energy conservation and recycling of materials.[86,87] Behavioral researchers have used signed agreements pledging to answer questionnaires honestly, "a procedure that has been shown to yield more valid self-reports."[11] Commitments often represent strong personal intentions that have been incorporated into a more formal plan for certain behaviors.

CURRICULUM CONSIDERATIONS

1. Does the curriculum contain messages and activities that encourage self-protective competencies when confronted with sexual and other risks?
2. Does the curriculum promote critical thinking and decision-making skills that protect students and others physically, emotionally, and mentally?
3. Are learners given multiple opportunities to observe and practice negotiation and risk refusal skills?
4. Does the curriculum provide opportunities for learners to explain and defend their personal choices?
5. Are support systems such as parents, personal and family rules, schools, faith groups, and/or community organizations recognized as contributors to self-efficacy?
6. Are sexually experienced youth provided with appropriate information, skills, and support to avoid future or continued sexual activity?
7. Are previously sexually coerced/abused individuals provided with appropriate information and support to avoid sexual activity and seek assistance as needed?

Effective curricula may directly encourage personal intentions and commitments to delay sex, and help learners identify both the benefits and difficulties associated with that commitment. Programs should strive to help students make their intentions clear and concrete. Although definitive research is incomplete, several factors may increase personal commitment to delaying sex:

↘ A personal understanding of the risks of teen sex.
↘ A strong appreciation for the benefits of delaying sexual activity.
↘ A pact, commitment, or pledge shared with valued peers.
↘ Continuous support from valued adults.

Adolescents who make a commitment or pledge to abstain from sexual activity initiate sexual activity later than adolescents who do not make such a commitment, even taking into account differences in these two groups of adolescents prior to pledging.[88,89] Several curricula provide materials that encourage students to make a private or public commitment or pledge to wait for sex.

Sample Personal Commitment[90]

↘ Because I want to protect the stability of my future marriage…
↘ Because I want to have fun and not worry…
↘ Because I am smart and know how to set boundaries…
↘ Because I want to build my relationship in a healthy way…
↘ Because I don't want to compromise my values…
↘ Because I don't want to disappoint my parents…
↘ Because I don't want to be disappointed,

I, _____ pledge to myself and my friend,

_____ to not get involved in drug and

alcohol use, and in premarital sexual activity.

Signed _____ Date _____

CURRICULUM CONSIDERATIONS

1. Does the curriculum assist the learner in developing and/or strengthening intentions to wait for sexual activity?
2. Does the curriculum provide examples of the benefits of a strong personal commitment to avoid adolescent sex?
3. Does the curriculum promote and practice skills to act on personal intentions to delay sex?
4. Does the curriculum encourage a private and/or public commitment to avoid sexual activity?
5. Does the curriculum help learners identify possible challenges or threats to their intentions and identify personal strategies for resisting those threats?

TARGET (7)

Identify and reduce the opportunities for sexual activity

Teenagers who date early, often, and steadily are more likely to have an earlier sexual debut.[91,92,93] In addition, participating in unsupervised activities, and dating older partners, are consistently associated with higher rates of drug and alcohol use, sexual activity and dating violence.[94,95]

Curricula should acknowledge the role of high risk situations that place teens in vulnerable situations. Effective curricula identify these situations, promote insight for students, and address how to mitigate these factors.[11,96] Teens who have been sexually active may become more aware of vulnerable situations and develop personal strategies to avoid these opportunities for sex.

Some factors that may be protective for teens — such as family involvement, parental rules, curfews, dating guidelines, supervised activities, and community safety — are outside the direct impact of program scope. However, appropriate shared learning activities can raise student and parent awareness in order to address these factors.

Programs that collaborate with their school and community may identify specific strategies that reduce high-risk situations that are conducive to sexual activity, coercion, or abuse. Community safety standards, supervision and regulations for school and community activities, and offering safe and supervised recreational and volunteer activities may allow for teens to enjoy social interactions while reducing opportunities for sex.

CURRICULUM CONSIDERATIONS

1. Does the curriculum teach the learner to recognize and avoid high-risk situations (such as early and frequent dating, unsupervised parties, coercion, or exploitation by older individuals)?
2. Does the curriculum encourage support systems and guidelines (such as family rules, parent involvement, structured activities, volunteer and faith activities, etc.) to minimize opportunities associated with adolescent sexual activity?
3. Does the curriculum identify and reduce the opportunity for sexual activity by promoting the avoidance of drugs, alcohol, coercive behaviors, and violence?
4. Does the curriculum provide scenarios, examples or skills to assist learners in recognizing and refusing sexually vulnerable situations?

TARGET (8)

Strengthen future goals and opportunities

Hopes and plans for the future are powerful supports for healthy adolescent decisions.[97] Successful programs create an opportunity for students to identify viable, attractive options in their future plans and relationships.[21,98] Many students hope for a secure future marriage or life partnership characterized by trust, faithfulness, and mutual responsibility.[99]

Some learners have not carefully considered the possible negative impact of early or multiple sexual partners on future relationships.[93] Students with high educational aspirations and academic achievement are more likely to delay sex, while those with lower educational expectations become sexually active at a younger age.[100,101] Teens who perceive limited life/career options may view early parenting less negatively or even as an alternate life course.[25,102]

The connections between youth sexual decisions, future sexual health, possible marriage and parenting, and/or personal and career goals are frequently emphasized in effective programs.[11] Such programs

promote student awareness and agreement that adolescent sexual activity and its consequences can create barriers to future goals and opportunities.

<div style="border:1px solid #6a1b6a; padding:10px;">

📧 CURRICULUM CONSIDERATIONS

1. Does the curriculum provide exercises that allow the learner to describe his or her future life?
2. Are there lessons that reinforce the potential for positive future opportunities (such as: personal health, career opportunities, supporting friendships, strong family ties and/or fulfilling marriage, etc.)?
3. Does the curriculum help learners create connections between sexual risks and future outcomes?
4. Are learners encouraged to identify personal attributes they may desire for themselves and/or a future spouse or partner?

</div>

TARGET ⑨

Partner with parents

Parents[*] should build strong relationships with their children and talk to their children about sex, early and often.[103] Parents are the first and best resource for helping youth make sound decisions. Some studies have looked specifically at the impact of parental involvement on decisions regarding sexual activity.[10,104,105,106] Parental involvement is also key to reducing other risk behaviors, such as alcohol and drug use, which often affect adolescents' decisions about sexual activity.[107,108] Parents who develop a strong relationship with their children also have a positive impact on academic achievement.[109]

The need for parental involvement is further reinforced by youths' attitudes because most youth want to obtain important information about relationships, expectations, and sex from their parents.[68,110] Recent research based on the *Parents Speak Up!* campaign reveals that mothers and fathers are more likely to talk to their children about sex and about delaying sexual activity when provided with direction and information.[111] Shared parent-child time, activities and communication forge the connections that have been shown to be protective against risky behaviors.[112]

Significant volumes of research provide evidence of the important role parents play in their children's lives. Therefore, programs should find ways to include parents and caregivers in their programs.[112,113,114]

<div style="border:1px solid #6a1b6a; padding:10px;">

📧 CURRICULUM CONSIDERATIONS

1. Does the curriculum recognize the role that parents, family, and caregivers play in a student's attitudes, beliefs, and behavior?
2. Does the curriculum provide or identify resources to equip parents to talk with their children about important topics pertinent to relationships, sex, and substance use?
3. Does the curriculum provide materials or resources to offer a parent workshop or information session?
4. Does the curriculum provide homework assignments that can be completed through collaboration between the parent and child?

</div>

---

* From this point forward the term "parents" includes biological, adopted, foster, or step-parents as well as guardians, caretakers, and caregivers.

PART III – QUALITY IMPROVEMENT:
The "What's Working?" Assessment

How can a program determine What's Working? Programs need to know at least three things to assess program results:

- ↘ Has the program been implemented as designed?
- ↘ Did the students change knowledge, attitudes or behaviors after the program?
- ↘ What improvements should be made in the program?

Achieving results in adolescent learning can be a challenge. Whether the behaviors in question involve completing homework, choosing healthy foods or refusing cigarettes, youth behaviors are difficult to change. These difficulties may be attributed to pubertal transitions, hormones, peer input, brain development, family patterns, media pressures, or community environment. The goal of avoiding sexual risks may present even more challenges, and requires educators to:

- ↘ Increase knowledge and enhance attitudes, values and skills regarding sexual behaviors;
- ↘ Develop or strengthen the intention to delay sex;
- ↘ Provide activities to support these intentions by family, society, and peers; and

- ↘ Equip learners to maintain these intentions, skills and behaviors for many years to lead to positive future adolescent outcomes.[10]

It is important to remember that effectiveness may not be guaranteed by the statistical significance of single variables. In addition, evaluations may not demonstrate the individual impact of teacher selection, curricular content or community involvement.

DEFINITION
Monitoring - the assessment of whether an intervention was implemented and is operating as designed and is reaching its intended target population.[115]

MONITOR PROGRAM IMPLEMENTATION TO IMPROVE EFFECTIVENESS
Has the program been implemented as designed?

Program monitoring often includes data to describe whether an intervention was implemented and operated as designed for its target population.[115] For example, if a curriculum was intended for 10 class sessions and implemented for only 3, or implemented by untrained personnel, program effectiveness may be significantly diminished. Tracking fidelity to curricular content, teacher training and preparation, and suggested educational methods can help identify opportunities for program improvement.[10]

MONITOR LEARNERS TO DETERMINE EFFECTIVENESS
Did the students change knowledge, attitudes or behaviors after the program?

Programs and/or curricula should provide tools to monitor the participants' learning.[115] Pre- and post-tests assess changes in knowledge and attitudes, as well as intentions, skills, and some behaviors. The results of pre- and post-questionnaires are more easily understood if the questions and responses have been observed and analyzed for larger groups of students and identified by

target populations, ages or ethnic groups. Some validated pre-and post-tests have been developed for federally funded programs and are available on the Web at: www.hhs.gov/opa/familylife/core_instruments/index.html

Other measures relevant to sexual risk avoidance programs also have been developed and evaluated.[116,117,118,119,120] Use of standardized curricular or federally funded pre- and post- tests may allow your organization to compare learner performance with other demographically similar student groups.

Because school curricula must meet local community needs and conform to the curriculum and testing requirements of the state or school district, users are encouraged to assure that monitoring tools appropriately address student and community needs and requirements.

PROGRAM REVIEW AND QUALITY IMPROVEMENT:
What improvements should be made in the program?

The effectiveness of programs can be appraised by the local school or organization through review of learner outcomes, assessments of program fidelity and examination of community needs and health trends (i.e. teen pregnancy rates or incidence of STI's). This review may identify the need for additional classroom time, enriched teacher training, or supplemental resources. Program review and curriculum analysis are essential to quality improvement and enhanced outcomes. Processes for review should be determined prior to program implementation to assure that necessary data are collected.

Even designers of successful programs may not know whether they have met their long-term goals, since youth generally receive interventions in the preadolescent or early adolescent period with time-limited follow up (sometimes a year or 2, but rarely beyond that.)[10] Evaluations usually assess short-term knowledge or attitude outcomes, but are unable to track youth into adulthood. Consequently, long-term results may be real, but difficult to document.[10]

CURRICULUM CONSIDERATIONS

1. Does the curriculum include valid and reliable pre- and post-testing instruments?
2. Are additional sources of data suggested in order to support program monitoring of important outcomes?

THINK ABOUT YOUR PROGRAM

↘ Is there a data collection method in place to measure what changes in knowledge, attitudes, intentions, and/or behaviors are observed in program participants?
↘ Is there a data collection method in place to measure what components of the intervention are used and who is receiving the intervention?
↘ Is there a process in place to review learner outcomes and program implementation to identify opportunities to improve effectiveness?

PART IV – COMMUNITY: The "Where" for Activities That Support Teens

The limited hours of instruction available to youth within health education programs may be more effective if the information they receive is valued and practiced in their community environment that surrounds them outside the program. Consequently, many programs are identifying ways to encourage parents/guardians, community groups, the media, faith-based organizations, and the medical community to become involved.[121] These community saturation models often provide both information and activities to create a more cohesive, supportive environment for youth to avoid sex and other risk behaviors.[122,123]

CDC's Division of Adolescent and School Health promotes the involvement of community members and groups through the School Health Council (SHC).[125] The SHC is used by many school systems to provide community input for program selection or development and to strengthen the coordination of community activities and resources.

Parents/Guardians

As noted earlier, parents are the first and best resources for helping youth make sound decisions. Ongoing studies are demonstrating that parents are more likely to talk with their teen about waiting to have sex if the parent is given both encouragement and information.[112,113] *The Parents Speak Up* national campaign involved public service announcements (PSAs), general information about adolescence, as well as a Web site www.4parents. gov with factual information, insights and communication techniques. One study found this mass media campaign to be effective in encouraging parents to initiate conversations with their children about sex.[111]

Community involvement targeting parents may be sponsored by the sexual risk-avoidance program itself or through other related partner organizations or activities, such as parent/teacher organizations, parenting courses, marriage and relationship education, and joint parent and child activities. Events like "Father and Daughter Dance Night" or parent and child neighborhood park clean-up may encourage communication and connections that have been shown to decrease risk behaviors.[125]

THINK ABOUT YOUR PROGRAM

↘ Are there media resources (PSAs, websites, etc.) for parents?
↘ Are parents in the community involved in addressing different community issues (youth sexual behavior, drug and alcohol use, violence, etc)?
↘ Are parent workshops offered in order to provide encouragement and information to parents?
↘ Are additional events (parents/teacher groups, parenting courses, marriage and relationship education, etc) offered for parents?
↘ Can partnerships be developed with organizations in the community that reach out to parents?
↘ Are different activities available that enhance and promote connectedness, communication, increased involvement between parents and their youth, as well as increased supervision and monitoring by parents of their youth?

Simple family changes, such as eating meals together at least five to seven times each week with the television and other distractions removed, have been associated with better communication, higher academic performance, reduced risks, and better nutritional patterns.[126,127] Many agencies in the community can provide information on these important messages.

Media

The amount of time young people spend with entertainment media has risen dramatically in recent years, with technology allowing continuous 24-hour access.[74] Media has become an important part of our personal lives, communities, and society overall.

Many media outlets (such as radio, TV, print ads, and billboards) participate in PSAs that target health or safety issues. The *Not Me, Not Now* media campaign is one example of a media campaign to promote sexual risk avoidance for youth, with encouraging results. This community initiative, which used a mass communications approach (including billboards, an extensive media campaign, and an educational series presented in school and community settings) has been associated with trends

in delaying sexual activity, preventing pregnancy, and influencing attitudes.[122]

Several resources are available to equip community media to collaborate with programs. Some curricula may provide press releases or billboard resources that can be adapted to local needs and initiatives. Program trainers, teachers or students may be available for local radio or TV interviews. Low-cost and free TV or radio public service announcements may be available through youth programs, county agencies or health departments.

Some schools may have journalism departments that may wish to develop news articles for community blogs, parent newsletters, or local newspapers. These information sources can provide information about teen

risks, the importance of parent-child communication, and community support for delaying sex, as well as program goals and activities.

Other media outlets teens are constantly accessing include popular movies, sports, texting, and social networking. The new trend is media multitasking, allowing teens to consume unprecedented amounts of media.[74] These media sources have an impact on teens' current attitudes. New media methods of promoting healthy teen behaviors should be considered and developed to promote the delay of sexual activity.[72,75,77]

Community Organizations

Many community organizations are concerned about the risks youth face and their future well-being and productivity.[128,129,130]

Local groups may be concerned about sexual risks and behaviors, but feel unprepared to address the issues directly. Community youth programs may benefit from the opportunity to participate in staff training or in-service activities. This opportunity could provide a foundation for understanding the rationale for promoting sexual risk avoidance as well as creating additional support and information to community youth to meet program goals.

Volunteer activities have been found to decrease the rates of adolescent sexual activity.[131,132] These activities may allow teens to develop responsibility and demonstrate compassion that may strengthen personal worth and relationships. Mentoring is one form of volunteerism that can be used effectively both in and out of school settings.[133,134] It is important to assure that the students and adults providing mentoring in sexuality education programs consistently demonstrate both appropriate messages and lifestyles to support the goal of teen sexual risk avoidance.[135]

Community service and civic organizations often have programs designed to nurture young leaders and enhance their personal and professional abilities. A letter informing community leaders

of the program goals may help to create opportunities to collaborate through these types of resources or activities.

Individually, coaches, teachers and school counselors can have a tremendous influence on a young person's life. The involvement and guidance of a trusted adult may substantially sway the choices and directions of an adolescent.[135]

Local law enforcement has a unique interest in youth risk interventions. Police, public attorneys, protective services and local judicial systems recognize many of the adverse outcomes associated with youth sexual assault, teen parenting, child abuse and sexual exploitation.[23] Local law enforcement personnel may inform program teachers and trainers of local needs, regulations and resources.

Public safety and legal professionals may volunteer in local programs to address relevant topics.

Community Health Resources

One of the most trusted and confidential relationships enjoyed by teens is with their health providers. Nurses, physicians and mental health professionals who recognize the importance of delaying sex or returning to an abstinent lifestyle may influence both current and future teen behavior.[136]

The school nurse and school counselor often provide important links among students, families, and community-based services. Opportunities to involve these school personnel in preparation for sexual risk-avoidance programs should

THINK ABOUT YOUR PROGRAM

↘ Does the community promote neighborhood involvement and improvement activities such as neighborhood watch, block parties, neighborhood clean-up events or other local gatherings and get-togethers?

↘ Would leaders from youth sports, youth services clubs or after-school activity programs benefit from training on risk-avoidance education?

↘ Are there volunteering options for youth?

↘ Is there a mentoring program in place? If not, can one be started?

↘ Do you have the support of local government officials and different agencies within the community?

↘ Are there community resources in place capable of responding to teen pregnancy, sexual assault, or other youth risks?

be maximized in order to understand student needs more fully and assure that messaging is consistent.

Other community medical personnel include local primary care physicians and health care providers, public health personnel, appropriate health care specialists, and local hospitals. Medical professionals talk to teens individually about primary prevention in areas of drugs, alcohol, and seat belt use. As a result, some health care providers are comfortable with providing risk avoidance messages and are willing to be trained in program content. They can assist with sexual risk avoidance programs by speaking in schools or organizations. Many more medical providers are willing to attend continuing education programs that discuss youth risks and the importance of supporting sexual risk avoidance.

Mental health providers in the community are often involved with families that deal with precursors or consequences of sexual risk behaviors. The community's ability to address sexual abuse or exploitation, difficult family dynamics, and other mental health concerns is vital to student and community outcomes.

Faith-Based Organizations

Faith-based organizations have a role to play in promoting positive health behaviors.[42]

Personal involvement and commitment in one's faith is associated with one's ability to abstain from risky behaviors, such as pre-marital sexual behavior or drug use.[104,137,138,139]

For many youth, their place of worship is also a source for social and personal development. That personal development can be encouraged through a sexual risk avoidance program consistent with the faith of the learners. One program provided in a church setting effectively modified knowledge and attitudes in minority youth, especially for youth who were sexually experienced.[42] Providing information to local clergy and faith-based organizations may allow for coordinated efforts to provide a cohesive message supporting delay of sexual activity.

Conclusion

Adolescents benefit from the consistent support of multiple

members of the community sharing a vision for healthy choices, healthy relationships and healthy futures.[140,141] It is optimal for the school, family, faith and medical communities to work together to give the consistent message that sex is a valuable part of life that is worth the wait.

Summary

At its best, sexuality education and relationship education is much more than a brief overview of anatomy, physiology, and the consequences of early sexual debut. It is a thoughtful and progressive discussion of facts, presented in a relevant and motivating manner that equips youth with the necessary insights and skills to avoid sexual intercourse. Ideally, this discussion provides support and direction that can prepare students for healthy futures and relationships.

Sexuality education is not the designated task of schools or community-based programs alone. It is a family and community responsibility to support pre-teens and teens through the pressures of adolescence. However, the school or program is responsible for determining goals, selecting an appropriate curriculum, assuring quality implementation, conducting student and program monitoring as well as assessing opportunities for improvement.

In conclusion, the SMARTool (both the descriptive document and the associated Scoring Grid) should be used to:

↘ identify community and program needs, goals and implementation processes;

↘ select a curriculum that corresponds to the program's target population and goals;

↘ assure that the targeted factors affecting youth sexual behavior are included in the program content;

↘ encourage the use of a wide range of effective education methods for teaching;

↘ prompt the creative engagement of the community to support youth risk avoidance; and

↘ use effective monitoring processes to assure efficient program implementation, effective and specific learner outcomes, as well as continuous program improvement.

The resources in the appendix that follows include the Curriculum Considerations, Scoring Grid, the Think About Your Program Checklist, and additional reference information.

For additional information and resources, please visit www.myrelationshipcenter.org

ENDNOTES

1   Latvala, A., Tuulio-Henriksson, A., Perala, J., Saarni, S.I., Aro, H., Korhonen, T., Koskinen, S., Lonnqvist, K., Kaprio, J., Suvisaari, J. (2009). Prevalence and correlates of alcohol and other substance use disorders in young adulthood: A population-based study. *BMC Psychiatry, 9*, 73.

2   DeWit, D.J., Hance, J., Offord, D.R., Ogborne, A. (2000). The influence of early and frequent use of marijuana on the risk of desistance of and progression to marijuana-related harm. *Preventative Medicine, 31*, 455-464.

3   Young, S. Y.N., Hansen, C. J., Gibson, R. L. Ryan, M.A.K. (2006). Risky alcohol use, age at onset of drinking, and adverse childhood experiences in young men entering the US Marine Corps. *Archives of Pediatric Adolescent Medicine. 160*, 1207-1214.

4   Forhan, S.E., Gottlieb, S.L., Sternberg, M.R., Xu, F., Datta, S.D., McQuillen, G.M. Berman, S.M., Markowitz, L.E., (2009). Prevalence of sexually transmitted infections among female adolescents aged 14 to 19 in the United States. *Pediatrics, 124(6)*, 1505-12.

5   Teachman, J. (2003). Premarital sex, premarital cohabitation, and the risk of subsequent marital dissolution among women. *Journal of Marriage and the Family, 65*, 444-455.

6   Kirby, D., Rolleri, L., Wilson, M.M. (2007). *Tool to assess the characteristics of effective sex and STD/HIV education programs*. Washington, D.C.: Healthy Teen Network.

7   CDC-DASH (2006). Funding Announcement 601. Retrieved at www.cdc.gov/healthyyouth/partners/ngo/pdf/RFA-DP06-601.pdf.

8   Centers for Disease Control and Prevention. *Health Education Curriculum Analysis Tool*. Atlanta: CDC; 2007.

9   Shadish. W.R., Cook, T.D., Campbell, D.T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. Wadsworth Publishing.

10   Kirby, D. (2007). *Emerging answers 2007: Research findings on programs to reduce teen pregnancy and sexually transmitted diseases*. Washington, DC: National Campaign to Prevent Teen and Unplanned Pregnancy.

11   Jemmott, J. B., Jemmott, L.S., Fong, G. T. (2010). Efficacy of a Theory-Based Abstinence-Only Intervention Over 24 Months. a Randomized Controlled Trial with Youth Adolescents. *Archives Pediatrics and Adolescent Medicine, 164(2)*. 152-159.

12   Weed, S., Ericksen, I.H., Lewis, A., Grant G.E., Wibberly, K.H. (2008). An abstinence program's impact on cognitive mediators and sexual initiation. *American Journal Health Behaviors, 32(1)*, 60-73.

13   Lerner, R. (2004). Can abstinence work? An analysis of the Best Friends program. *Adolescent & Family Health*, *3(4)*, 185-192.

14   Rue, L. A., Rogers, J., Kinder, E. & Bruce, D. (2009). Summative Evaluation: Abstinence education program. – Impact Evaluation submitted to Department of Health and Human Services, Grant #90AE0219. Submitting for publication.

15   U.S. Department of Health and Human Services Administration for Children and Families. (2007). *Promising practices for providing abstinence education to high-risk youth: Perspectives from the field*. Washington, DC.

16   U.S. Department of Health and Human Services Administration for Children and Families. (2007). *Promising practices for providing abstinence education to high-risk youth: Project results and findings*. Washington, DC.

17   Metz, A.J.R., Espiritu, R., Moore, K.A., (2007). *What is evidence-based practice?* Washington, DC: Child Trends Research-to-Results Brief.

18   Salabarria-Pena, Y, Apt, B. S. & Walsh, C.M. (2007). *Practical use of program evaluation among sexually transmitted disease (STD) programs*. Atlanta, GA: Centers for Disease Control and Prevention.

19   Kirby, D., Lepore, G., Ryan, J. (2005). *Sexual risk and protective factors: Factors affecting teen sexual behavior, pregnancy, childbearing and sexually transmitted diseases: Which are important? Which can you change?* Washington, DC: National Campaign to Prevent Teen and Unplanned Pregnancy.

20   Kirby, D., Coyle, K, Rolleri, L.A., Robin, L. (2009). *Reducing adolescent sexual risk: A theoretical guide for developing and adapting curriculum-based programs*. (unpublished draft) Scotts Valley, CA: ETR Associates.

21   Metz, A.J.R., Bandy, T., Burkhauser, M. (2009). *Staff selection: What's important for out-of-school time programs?* Washington, DC.: Child Trends.

22   Freudenberg, N., Regulis, J. (2007). Reframing school dropout as a public health issue. *Preventing Chronic Disease, 4(4)*, 1-11.

23   Finkelhor, D., Ormrod, R., Chaffin, M. (2009). Juveniles who commit sex offenses against minors. *Juvenile Justice Bulletin*.

24   Plotnick, R.D. (2004). *Teen expectations and desires about family formation in the United States*. Center for Analysis of Social Exclusion, London School of Economics.

25   Merrick, E.N. (1995). Adolescent childbearing as a career "choice": Perspective from an ecological context. *Journal of Counseling and Development*, 73, 288-295.

26   U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With Understanding and Improving Health and Objectives for Improving Health. 2 vols. Washington, DC: U.S. Government Printing Office, November 2000. www.healthypeople.gov.

27   Dinh-Zarr, T.B., Sleet, D.A., Shults, R.A., Zaza, S., Elder, R.W., Nichols, J.L., Thompson, J.L., Sosin, D.M., Task Force on Community Preventive Services. (2001). Reviews of evidence regarding interventions to increase the use of safety belts. *American Journal of Preventive Medicine, 21 (4 Suppl)*, 48-65.

28   Rubie-Davies, C., Hattie, J., Hamilton, R. (2006). Expecting the best for students: Teacher expectations and academic outcomes. *British Journal of Educational Psychology, 76*, 429-444.

29   Kierein, N.M., Gold, M.A. (2000). Pygmalion in work organizations: A meta-analysis. *Journal of Organizational Behavior, 21*, 913-928.

30   Buchanan, C.M., Hughes, J.L. (2009). Construction of social reality during early adolescence: Can expecting storm and stress increase real or perceived storm and stress? *Journal of Research on Adolescence, 19*, 261-285.

31   Martin, S., Rector, R., Pardue, M.G. (2004). *Comprehensive sex education vs. authentic abstinence: A study of competing curricula*. Washington, D.C.: Heritage Foundation.

32   Kirby, D. (2004). *BDI Logic Models: A useful tool for developing, strengthening, and evaluating programs to reduce adolescent sexual risk-taking, pregnancy, HIV, and other STDs*. Scotts Valley, CA: ETR Associates.

33   Taylor-Powell, E., Henert, E. (2008) *Developing a logic model: Teaching and training guide*. Madison, WI: University of

Wisconsin-Extension, Cooperative Extension, Program Development and Evaluation.

34   Lerner, R. (2004). Can abstinence work? An analysis of the Best Friends program. *Adolescent & Family Health*, *3(4)*, 185-192.

35   Philliber, S., Kaye, J.W., Herrling, S.N., West, E., (2002). Preventing Pregnancy and Improving Health Care Access Among Teenagers: an Evaluation of the Children's Aid Society-Carrera Program. *Perspectives on Sexual and Reproductive Health, 34*, 244-251.

36   McBride, D., Glenapp, A. (2000). Using randomized designs to evaluate client-centered programs to prevent adolescent pregnancy. *Family Planning Perspectives, 32(5)*, 227-235.

37   Robin, L., Dittus, P., Whitaker, D., Crosby, R., Ethier, K., Mezoff, J., Miller, K., Pappas-Deluca, K. (2004). Behavioral interventions to reduce incidence of HIV, STD, and pregnancy among adolescents: a decade in review, *Journal of Adolescent Health, 34*, 3-6.

38   Frost, J. J., Forrest, J.D. (1995). Understanding the impact of effective teenage pregnancy prevention programs. *Family Planning Perspectives*, 27, 188-195.

39   Moore, K.A., Sugland, B.W. (1997). Using behavioral theories to design abstinence programs. *Children and Youth Services Review*, 19, 485-500.

40   Lieberman, L. D., Gray, H., Wier, M., Fiorentino, R, Maloney, P. (2000). Long-term outcomes of an abstinence-based, small-group pregnancy prevention program in New York City schools. *Family Planning Perspective, 32 (5)*, 237-45.

41   Borawski, E.A., Trapl, E.S., Loveg-reen, L.D., Colebianchi, N., Block, T. (2005). Effectiveness of abstinence-only intervention in middle school teens. *American Journal of Health Behavior, 29*, 423-434.

42   Sherr, M. E., Dyer, P. (2009). A Preliminary Evaluation of Comprehensive Abstinence-Based Program for Minority Church Youth: Implications for Youth Ministers. *The Journal of Youth Ministry, 8(1),* 39-50.

43   Denny, G, Young, M. (2006). An evaluation of an abstinence-only sex education curriculum: An 18 month follow-up. *Journal of School Health, 76*, 414-422.

44   Kirby, D., Laris, B.A., Rolleri, L. (2006). *Sex and HIV programs for youth: Their impact and important characteristics.* Washington, DC: Healthy Teen Network.

45   Bell, S.G., Newcomer, S.F., Bachrach, C., Borawski, E., Jemmott, J.B., 3ʳᵈ, Morrison, D., Stanton, B.,

46   Metz, A.J.R., Bandy, T., Burkhauser, M. (2009). *Staff selection: What's important for out-of-school time programs?* Washington, D.C.: Child Trends.

47   Centers for Disease Control and Prevention, HIV Prevention Research Synthesis Project. (1999). *Compendium of HIV prevention interventions with evidence of effectiveness.* Atlanta, GA: Centers for Disease Control and Prevention.

48   Mathematica Policy Research (2002). *The evaluation of abstinence education programs funded under Title V Section 510: interim report.* Prepared for the Office of the Assistant Secretary for Planning and Evaluation, US Department of Health and Human Services, Washington, D.C.

49   Blum, R., McNeely, C., Rinehart, P. (2002). *Improving the Odds: The Untapped Power of Schools to Improve the Health of Teens.* Princeton, NJ: Robert Wood Johnson Foundation.

50   Hawkins, J., Catalano, R.F., Kosterman, R., Abbott, R., Hill, K. (1999). Preventing Adolescent Health-Risk Behaviors by Strengthening Protection During Childhood. *Archives of Pediatrics & Adolescent Medicine, 153*, 226-234.

51   Weed, S.E., Erickson, I.H. (2009). *Psycho-social mediators and teen sexual behavior.* Salt Lake City, UT: Institute for Research and Evaluation.

52   Whitehead, B.D., Pearson, M. (2006). *Making a love connection: Teen relationships, pregnancy, and marriage.* Washington, D.C.: National Campaign to Prevent Teen and Unplanned Pregnancy.

53   Jonassen, D. (1999). Designing constructivist learning environments. In C. M. Reigeluth (Ed.), *Instructional design theories and models: A new paradigm of instructional theory* (Vol. II) (pp. 215-239). Mahwah, NJ: Lawrence Erlbaum Associates.

54   Institute for Research and Evalua-tion, personal communication, Janu-ary-February 2010.

55   Hatcher, R.A., Trussell, J., Nelson, A.L., Cates, Jr, W., Stewart, F. *Contraceptive technology*, 19ᵗʰ Ed. PDR Network, LLC. www.contraceptivetechnology.org/.

56   American Academy of Pediatrics, Committee on Infectious Diseases, Pickering, L.K., Baker, C.J., Kimberlin, D.W., Long, S.S. (2009). *Red Book: 2009 report of the*

Committee on Infectious Diseases. American Academy of Pediatrics.

57   Green, L.W., & Kreuter, M.W. (1999). *Health promotion planning: An educational and ecological approach* (3rd ed.). Mountain View, CA: Mayfield.

58   Kreuter, M & Skinner, C.S. (2000) Tailoring: What's in a name? *Health Education Research, 15*, 1-4.

59   Petty, R. E., & Wegener, D. T. (1998). Attitude change: Multiple roles for persuasion variables. In D. T. Gilbert, S. T. Fiske & G. Lindzey (Eds.), *The Handbook of Social Psychology* (Vol. 4th, pp. 323-390). Boston, MA: McGraw-Hill.

60   Witte, K.,Allen, M. (2000). A meta-analysis of fear appeals: Implica-tions for effective public health campaigns. *Health Education & Behavior, 27(5),* 591-615.

61   CDC (2008). *2007 National Youth Risk Behavior Survey Overview.* Atlanta, GA.

62   Paradise, J.E., Cote, J., Minsky, S., Lourenco, A., Howland, J. (2001). Personal values and sexual decision-making among virginal and sexually experienced urban girls. *Journal of Adolescent Health. 28*, 404-409.

63   Hoffman, S.D. (2008). Consequences of teen childbearing for mothers: Updated estimates of the consequences of teen childbearing for mothers. In S. D. Hoffman, & R. A. Maynard (Eds.), *Kids having kids: Economic costs & social consequences of teen pregnancy* (2nd ed., pp. 74-92). Washington, DC: The Urban Institute Press.

64   Suellentrop, K. (2008). *Science says #36: Teen sexual behavior.* Washington, D.C.: National Campaign to Prevent Teen and Unplanned Pregnancy.

65   Perper, K., Peterson, K., Manlove, J. (2010). *Diploma attainment among teen mothers.* Washington, D.C.: Child Trends.

66   Festinger, L, Carlsmith, J.M. (1959). Cognitive consequences of forced compliance. *Journal of Abnormal and Social psychology, 58*, 203-210.

67   Sulak, P.J., Herbelin, S.J., Fix, D.D., Kuehl, T.J. (2006). Impact of an adolescent sex education program that was implemented by an academic medical center. *American Journal of Obstetrics and Gynecology, 195*, 78-84.

68   Albert, B. (2007). *With one voice 2007: America's adults and teens sound off about teen pregnancy. A periodic national survey.* Washington, D.C.: National Campaign to Prevent Teen and Unplanned Pregnancy.

69   Loewenson, P.R., Ireland, M.,

Resnick, M.D. (2004). Primary and secondary abstinence in high school students. *Journal of Adolescent Health, 34*, 209-215.

70 Gardner, M., Steinberg, L. (2005). Peer influence on risk taking, risk preference, and risky decision making in adolescence and adulthood: An experimental study. *Developmental Psychology, 41*, 625-635.

71 Trenholm, C., Devaney, B., Fortson, K., Quay, L., Wheeler, J., Clark, M. (2007). *Impacts of four Title V, Section 510 abstinence education programs. Final report.* Princeton, N.J.: Mathematica Policy Research, Inc.

72 Brown, J. (Ed). (2008*). Managing the Media Monster: The Influence of Media (From Television to Text Messages) on Teen Sexual Behavior and Attitudes.* Washington, DC: National Campaign to Prevent Teen and Unplanned Pregnancy.

73 Collins, R.L., Elliot, M.N., Berry, S.H., Kanouse, D.K., Hunter, S.B., Miu, A. (2004). Watching sex on television predicts adolescent initiation of sexual behavior. *Pediatrics, 114 (3)*, 280-289.

74 Kaiser Family Foundation. (2010). *Generation M2: Media in the lives of 8 to 18-year-olds.* Washington, DC: Kaiser Family Foundation.

75 L'Engle, K.L., Brown, J.D., Kenneavy, K. (2006). The mass media are an important context for adolescents' sexual behavior. *Journal of Adolescent Health*, 38, 186-192.

76 Chandra, A., Martino, S.C., Collins, R.L., Elliott, M.N., Berry, S.H. Kanouse, D.E., Miu, A. (2008). Does watching sex on television predict teen pregnancy? Findings from a national longitudinal survey of youth. *Pediatrics, 122*, 1047-1054.

77 Pinkleton, B.E., Austin, E.W., Cohen, M., Chen, Y.C., Fitzgerald, E. (2008) Effects of a peer-led media literacy curriculum on adolescents' knowledge and attitudes toward sexual behavior and media portrayals of sex. *Health Communications. 23*, 462-472.

78 Heubeck, E. (2009). Teen peer pressure: Raising a peer pressure-proof child. WebMD. www.webmd.com/parenting/teen-abuse-cough-medicine-9/peer-pressure.

79 Wang, R.H., Cheng, C.P., Chou, F.H. (2009) Predictors of sexual abstinence behaviour in Taiwanese adolescents: A longitudinal application of the transtheoretical model. *Journal of Clinical Nursing*, *18(7)*, 1010-1017.

80 Carvajal, S.C., Parcel, G.S., Basen-Enquist, K., Banspach, S.W., Coyle, K.K., Kirby, D., Chan, W. (1999). Psychosocial predictors of delay of first sexual intercourse by adolescents. *Health Psychology, 18*, 443-452.

81 Eisenburger, P., Safar, P. (1999). Life supporting first aid training of the public- Review and recommendations. *Resuscitation, 41(1)*, 3-18.

82 Montano, D.E., Kasprzyk, D. (2008). Theory of reasoned action, theory of planned behavior, and the integrated behavioral model. In. Glanz, K, Rimer, B.K., & Viswanath, K. (Eds.) *Health Behavior and Health Education: Theory, Research, and Practice*, 4th Ed. Jossey-Bass, pp. 67-95.

83 Wisely, D. *A model contract: parenting the teen driver.* Accessed at sites.google.com/site/parentingteendriverd2/

84 Safe Teen Driver (2007). *Driving contracts help teen's safety.* Accessed at www.safeteendriver.org/drivingcontracts.htm.

85 Allstate Teen Driving Contract. www.allstateteendriver.com/contract.

86 Earth Day pledge. earth911.com/earthday/pledge/.

87 National Recycling Coalition Recycling Pledge. www.nrc-recycle.org/takethepledge.aspx.

88 Martino. S.C., Elliott, M.N., Collins, R.L., Kanouse, D.E., Berry, S.H. Virginity pledges among the willing: Delays in first intercourse and consistency of condom use. *Journal of Adolescent Health, 43(4)*, 341-348.

89 Bersamin, M.M., Walker, S., Waiters, E.D., Fisher, D.A., Grube, J.W., 2005. Promising to wait: Virginity pledges and adolescent sexual behavior. *Journal of Adolescent Health, 36(5)*, 428-436.

90 Mackenzie, J. (2003). *WAIT Training* (2nd ed). Colorado: The Center for Relationship Education.

91 Miller, S., Lansford, J.E., Costanzo,, P, Malone, P.S., Golanka, M., Killeya-Jones, L.A. (2009). Early adolescent romantic partner status, peer standing, and problem behaviors. *Journal of Early Adolescence, 29(6)*, 839-861.

92 Marin, B.V., Kirby, D.B., Hudes, E.S., Coyle, K.K., Gomez, C.A. (2006). Boyfriends, girlfriends, and teenagers' risk of sexual involvement. *Perspectives on Sexual and Reproductive Health, 38(2)*, 76-83.

93 Brown, A.B., Brown, S., Flanigan, C. (Eds.) (2003). *14 and Younger: The Sexual Behavior of Young Adolescents (Summary)*. Washington, D.C.: National Campaign to Prevent Teen and Unplanned Pregnancy.

94 Schelar, E., Ryan, S., Manlove, J. (2008). *Long-term consequences for teens with older sexual partners.* Washington, D.C.: Child Trends.

95 Manlove, J.S., Ryan, S., Franzetta, K. (2007). Risk and protective factors associated with the transition to a first sexual relationship with an older partner. *Journal of Adolescent Health, 40(2)*, 135-143.

96 Haglund, K. (2008). Reducing sexual risk with practice of periodic secondary abstinence. *Journal of Obstetric, Gynecological, and Neonatal Nursing, 37*, 647-656.

97 Ginsburg, K.R., Alexander, P.M., Hunt, J., Sullivan, M., Zhoa, H., Cnaan, A. (2002). Enhancing their likelihood for a positive future: The perspective of inner-city youth. *Pediatrics, 109*, 1136-1142.

98 Driscoll, A.K., Brockman, M.S., Gregory, P., Alvarado, D., Bersamin, M.M., Johns, M., Lee, F., Liesch, D., Moncloa, F., Russell, S.T., Sousa, C. (2003). In their own words: Pregnancy prevention needs of Latino teen mothers, *California Journal of Health Promotion, 1(2)*, 118-129.

99 Wood, R.G., Avellar, S., Goesling, B. (2008). *Pathways to adulthood and marriage: Teenagers' attitudes, expectations, and relationship patterns.* Mathematica Policy Research, Inc report submitted to the U.S. Department of Health and Human Services Office of the Assistant Secretary for Planning and Evaluation.

100 Schvaneveldt, P.L., Miller, B.C., Berry, E.H., Lee, T.R. (2001). Academic goals, achievement, and age at first sexual intercourse: Longitudinal bidirectional influences. *Adolescences, 36*, 767-787.

101 Unger, J.B., Molina, G.B., Teran, L. (2000). Perceived consequences of teenage childbearing among adolescent girls in an urban sample. *Journal of Adolescent Health, 26*, 205-212.

102 Young, T., Turner, J, Denny, G., Young, M. (2004). Examining external and internal poverty as antecedents of teen pregnancy. *American Journal of Health Behavior, 28,* 361-373.

103 National Campaign to Prevent Teen and Unplanned Pregnancy (2003). *Parent power: What parents need to know and do to help prevent teen pregnancy.* Washington, DC.

104 Manlove, J., Logan, C., Moore, K.A., Ikramullah, E. (2008). Pathways from family religiosity to adolescent sexual activity and contraceptive use. *Perspectives on Sexual and Reproductive Health, 40(2)*, 105-117.

105 Jaccard, J., Dittus, P. (2000). Adolescent Perceptions of Maternal Ap-

proval of Birth Control and Sexual Risk Behavior. *American Journal of Public Health*, *90*, 1426-1430.

106   Resnick, M., Bearman, P., Blum, R., Bauman, K., Harris, K., Jones, J., Tabor, J., Beauhring, T., Sieving, R., Shew, M., Ireland, M., Bearinger, L., Udry, J. (1997). Protecting adolescents from harm, findings from the National Longitudinal Study on Adolescent Health. *Journal of the American Medical Association*, *278*, 823-832

107   Kelly, K., Cornello, M., Hunn, L. (2002). Parent-Child Communication, Perceived Sanctions Against Drug Use, and Youth Drug Involvement. *Adolescence*, *37*, 775-787.

108   Sargent, J., Dalton, M. (2001). Does Parental Disapproval of Smoking Prevent Adolescents From Becoming Established Smokers? *Pediatrics*, *10*8, 1256-1262.

109   Sui-Chu, E., Willms, J. (1996). Effects of Parental Involvement on Eighth-Grade Achievement. *Sociology of Education*, *69*, 126-141.

110   The National Campaign to Prevent Teen and Unplanned Pregnancy (2004). *Key Findings from This is My Reality: The Price of Sex.* Washington, DC.

111   Evans, W.D., Davis, K.C., Ashley, O.S., Blitstein, J., Koo, H., Zhang, Y. (2009). Efficacy of abstinence promotion media message: Findings from an online randomized trial. *Journal of Adolescent Health*, *45*, 409-416.

112   Lezin, N., Rolleri, L.A., Bean, S., Taylor, J. (2004). *Parent-child connectedness: Implications for research, interventions, and positive impacts on adolescent health.* Santa Cruz, CA: ETR Associates.

113   Ashley, O.S. (2007). *An assessment of parent involvement strategies in programs serving adolescents.* Research Triangle Park, NC: RTI International.

114   Miller-Heyl, J., Podunovich, R. A., MacPhee, D. (2005, April). *The dare to be you "Care to Wait" Program: A multi-level, family-based abstinence education research project.* Paper presented at the Strengthening Abstinence Education Programs Through Scientific Evaluations conference, Baltimore.

115   W.K.Kellogg Foundation. (1998). *W.K.Kellogg Foundation Evaluation Handbook.*

116   Hulton, L.J. (2001). The application of the transtheoretical model of change to adolescent sexual decision-making. *Issues in Comprehensive Pediatric Nursing*, *24*, 95-115.

117   Nagy, S., Watts, G.F., Nagy, M.C. (2003). Scales measuring psychosocial antecedents of coital initiation among adolescents in a rural southern state. *Psychological Reports, 92*, 981-990.

118   Scales, P.C. (1999). Reducing risks and building developmental assets: Essential actions for promoting adolescent health. *Journal of School Health, 69*, 113-119.

119   Oman, R.F., Vesely, S.K., McLeroy, K.R., Harris-Wyatt, V., Aspy, C.B. Rodine, S. Marshall, L. (2002). Reliability and validity of the Youth Asset Survey (YAS). *Journal of Adolescent Health, 31*, 247-255.

120   Norris, A.E., Clark, L.F., Magnus, S. (2003). Sexual abstinence and the Sexual Abstinence Behavior Scale. *Journal of Pediatric Health Care, 17*, 140-144.

121   Upchurch, D.M., Aneschensel, C.S., Sucoff, C.A., Levy-Storms, L. (1999). Neighborhood and family contexts of adolescent sexual activity. *Journal of Marriage and the Family, 61*, 920-933.

122   Doniger, A., Adams, E., Utter, C., Riley, (2001). Impact evaluation of the "Not Me, Not Now" abstinence-oriented, adolescent pregnancy prevention communications program: Monroe county, NY. *Journal of Health Communications, 6*, 45-60.

123   Search Institute (2004). Tapping the power of community: Building assets to strengthen substance abuse prevention. *Insights & Evidence, 2(1)*, 1-14.

124   Missouri Coordinated School Health Coalition (20080. *School health advisory council guide.* Columbia, Missouri: Coordinated School Health Coalition.

125   www.parentinvolvementmatters. org/resources/programs.htm.

126   Fulkerson, J.A., Story, M., Mellin, A., Leffert, N., Neumark-Szlainer, D, French, S.A. (2006). Family dinner meal frequency and adolescent development: Relationships with developmental assets and high-risk behaviors. *Journal of Adolescent Health*, 39, 337-345.

127   Neumark-Szlainer, D., Eisenberg, M.E., Fulkerson, J.A., Story, M., Larson, N.I. (2008). Family meals and disordered eating in adolescents: Longitudinal findings from Project EAT. *Archives of Pediatrics and Adolescent Medicine, 162*, 17-22.

128   Search Institute. www.search-institute.org/.

129   Institute for Youth Development. www.youthdevelopment.org/ default.asp.

130   Big Brothers Big Sisters of America. www.bbbs.org/.

131   Kuperminc, G.P., Holditch, P.T., & Allen, J.P. (2001). Volunteering and community service in adolescence. *Adolescent Medicine: State of the art reviews, 12*, 445-457.

132   O'Donnell, L., Stueve, A., San Doval, A., Duran, R., Haber, D., Atnafou, R., Johnson, N., Grant, U., Murray, H., Juhn, G.,Tang, J., Piessens, P. (1999). The effectiveness of the Reach for Health community youth service learning program for reducing early and unprotected sex among urban middle school students. *American Journal of Public Health, 23*, 254-263.

133   www.mentoring.org/.

134   Herrera, C., Grossman, J.B., Kauh, T.J., Feldman, A.F., McMaken, J. *Making a difference in schools: The Big Brothers Big Sisters school-based mentoring impact study.* Pennsylvania, PA: Public/ Private Ventures.

135   Herrera, C., Kauh, T.J., Cooney, S.M., Grossman, J.B., McMaken, J. (2008). *High school students as mentors: Findings from the Big Brothers Big Sisters school-based mentoring impact study.* Philadelphia, PA: Public/ Private Ventures.

136   Golden, A. (2004). *Strategies for Adolescent Guidance Education.* Presentation to Community Based Abstinence Education SPRANS and Title V State Section 510 abstinence grantees. www.youthdevelopment. org/download/Golden_ Presentation.ppt.

137   Rotosky, S., Regnerus, M., Wright, C., Laurie, M. (2003) Coital Debut: The Role of Religiosity and Sex Attitudes in the Add Health Survey. *Journal of Sex Research,40*, 358-367.

138   Miller, L., Gur, M. (2002). Religiousness and Sexual Responsibility in Adolescent Girls. *Journal of Adolescent Health, 31*, 401-406.

139   Lammers, C., Ireland, M, Resnick, M, Blum, R. (2000). Influences on adolescents' decision to postpone onset of sexual intercourse: A survival analysis of virginity among adolescents aged 13 to 18 years. *Journal of Adolescent Health, 26(1)*, 42-48.

140   Moore, K.A., Zaff, J.F. (2002). *Building a better teenager: A summary of "What Works" in adolescent development.* Child Trends Research Brief. Washington, D.C.: Child Trends.

141   Baumer, E.P., South, S.J. (2001). Community effects on youth sexual activity. *Journal of Marriage and Family, 33*, 319-329.

SCORING GRID

How to Use This Grid

The SMARTool provides guidance on both programs and curricula. Sidebars entitled 🔲 **Think About Your Program** prompt considerations of important planning, implementation, or evaluation needs within your organization or community. 🔲 **Curriculum Considerations** are found at the conclusion of each part describing important curriculum components.

This Scoring Grid is designed to help organizations use the SMARTool's information about sexual risk-avoidance programs and curricula to identify a sexuality education curriculum that best fits their organization's and community's needs and goals. To make the comparison and selection process easier, the Scoring Grid includes questions that correspond to each part of the SMARTool, as well as options for comments, concerns, and summary scores.

As the questions and scores are completed for each curriculum under consideration, they can help a group of reviewers discuss their reactions to the curricula being compared, their ratings of each curriculum's strengths and weaknesses, and

Name of Curriculum:

_____

Name of Reviewer:

_____

their overall sense of which curriculum would provide the best match for an organization and community.

The questions and scores are intended as prompts for full, systematic discussions of different curricula. Depending on the organization and community, some questions may seem more relevant than others; some may indicate a need for further discussion, inquiry, or research. The Scoring Grid may identify a clear choice of curriculum or point to a need for more research and analysis. It may also inform a sound decision about the best fit between a particular curriculum and an organization's and community's needs.

When several curricula are being considered, each one should be assessed for alignment with that section's content.

Suggested steps for review include the following:

↘ Ideally, secure at least three reviewers for each curriculum under review.

↘ Read each part of the SMARTool, with its associated checklists and questions.

↘ Read the proposed curriculum to gain familiarity with its educational goals, format, and content.

↘ Use the checklists and questions provided in the SMARTool Scoring Grid in the appendix to help gauge the degree to which each curriculum meets your organization's goals.

↘ Discuss reviewers' Scoring Grid ratings, scores, and conclusions to reach consensus on the relative strengths and weaknesses of each curriculum being considered.

↘ Once a curriculum has been selected, use the "Think About Your Program" checklist to identify community activities that could augment program effectiveness as the curriculum and program are implemented.

CURRICULUM CONSIDERATIONS

Part I – PLANNING: The "Why, When and Who" for Sexual Risk Avoidance Programs

Time and Intensity: (page 12)

1. Is the curriculum consistent with your organizational goals?
   ☐ Yes   ☐ No   ☐ Not Sure

2. Has the curriculum under consideration been formally evaluated and shown to have affected behavior change on some or all of the targets evaluated?
   ☐ Yes   ☐ No   ☐ Not Sure

3. Does the curriculum use promising approaches reflecting evaluated interventions or curricular content?
   ☐ Yes   ☐ No   ☐ Not Sure

4. Does the curriculum demonstrate a sound model of changing knowledge, attitudes, skills, intentions, and behavior consistent with accepted behavioral and educational theories?
   ☐ Yes   ☐ No   ☐ Not Sure

5. Does the curriculum address specific steps needed to meet those goals? (Note: Consider using a logic model to assess the relationship between steps and goals.)
   ☐ Yes   ☐ No   ☐ Not Sure

6. Does the curriculum offer adequate dosage — for example, multiple sessions per grade, and sessions for multiple grade levels?
   ☐ Yes   ☐ No   ☐ Not Sure

7. Do high-risk populations have an opportunity for more intensive interventions or lesson sessions?
   ☐ Yes   ☐ No   ☐ Not Sure

8. Does the curriculum integrate with and supplement other health or character-based education in the school or organization?
   ☐ Yes   ☐ No   ☐ Not Sure

Flexibility and Sustainability (page 12)

9. Is the curriculum flexible enough to address learner needs across varied demographic student groups?
   ☐ Yes   ☐ No   ☐ Not Sure

10. Is the curriculum flexible enough to meet or complement program needs, based on coordination with existing health education requirements and time constraints?
   ☐ Yes   ☐ No   ☐ Not Sure

NOTES:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Staff Selection and Training (pages 12-13)

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

11. Does the curriculum provide guidance for identifying teaching staff who are comfortable with and supportive of the sexual risk avoidance message?
    ☐ Yes   ☐ No   ☐ Not Sure

12. Does the curriculum developer provide teacher training through workshops, conferences, or other venues to improve knowledge and skills?
    ☐ Yes   ☐ No   ☐ Not Sure

13. Are materials available to provide in-service training for all organization personnel?
    ☐ Yes   ☐ No   ☐ Not Sure

14. Are content updates and curricular experts available to assure continuous improvement?
    ☐ Yes   ☐ No   ☐ Not Sure

15. Are teacher materials, supplemental resources, and lesson plans easy to use and appropriate for effective lessons?
    ☐ Yes   ☐ No   ☐ Not Sure

PART I SUMMARY

 # Yes: _____

 # No: _____

 # Not Sure: _____

Concerns or Red Flags:

_____

_____

_____

Questions/More Information Needed:

_____

_____

_____

_____

PART II - CURRICULUM: The "What and How" Targets for Sexual Risk Avoidance Programs

Target #1: Enhance the knowledge of a) physical development, sexual risks, and b) healthy relationships (pages 16-18)

1. Does the curriculum address appropriate topics for the age group and target population?
   - ☐ Yes   ☐ No   ☐ Not Sure

2. Does the material presented maintain a clear and consistent risk avoidance approach regarding sexual involvement and other risks?
   - ☐ Yes   ☐ No   ☐ Not Sure

3. Do the content areas of the proposed curriculum address the requirements of funding or regulatory agencies?
   - ☐ Yes   ☐ No   ☐ Not Sure

4. Does the curriculum meet state and/or local health education standards?
   - ☐ Yes   ☐ No   ☐ Not Sure

5. Does the curriculum personalize the potential negative impacts of sexual involvement (such as pregnancy, STIs, emotional, social, or relationship problems, etc.)?
   - ☐ Yes   ☐ No   ☐ Not Sure

6. Are sources of scientific, medical, social science, and health information either commonly available in multiple books and texts (i.e., anatomy, established physiology, development) or documented by site of original research or source?
   - ☐ Yes   ☐ No   ☐ Not Sure

7. Are further sources of information provided for teachers to obtain additional reliable data, if appropriate?
   - ☐ Yes   ☐ No   ☐ Not Sure

8. Is the presentation of facts balanced and objective?
   - ☐ Yes   ☐ No   ☐ Not Sure

TARGET 1 SUMMARY

Strong Examples:

_____

_____

_____

NOTES:

SYSTEMATIC METHOD FOR ASSESSING RISK-AVOIDANCE TOOL (SMARTool)

TARGET 1 SUMMARY

Concerns or Red Flags:

_____

_____

_____

_____

Questions:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Rating: Overall, to what extent does the curriculum enhance the knowledge of three key topics: physical development, sexual risks and healthy relationships?

☐ Strongly enhances knowledge in all three areas

☐ Generally enhances knowledge (with a few exceptions, or not equally across all three areas)

☐ Somewhat enhances knowledge (quite a few exceptions across all three areas)

☐ Does not focus on enhancing knowledge in these three areas

Target #2: Support personal attitudes and beliefs that value sexual risk avoidance (pages 19-21)

1. Does the curriculum include exercises that help students recognize attitudes in their school, home, community, and media?
    ☐ Yes ☐ No ☐ Not Sure

2. Does the curriculum present information in a relevant and compelling manner that has the potential to change attitudes and beliefs?
    ☐ Yes ☐ No ☐ Not Sure

3. Does the curriculum use fear of negative outcomes in an appropriate manner to equip students to avoid risks?
    ☐ Yes ☐ No ☐ Not Sure

4. Does the curriculum develop and display character traits that are consistent with universal values (i.e., trustworthiness, respect, responsibility, caring, courage, etc.)?
    ☐ Yes ☐ No ☐ Not Sure

5. Does the curriculum help students value the avoidance of adolescent sexual involvement?
    ☐ Yes ☐ No ☐ Not Sure

6. Does the curriculum help students increase their value of commitment, marriage, and future family formation?
    ☐ Yes ☐ No ☐ Not Sure

7. Does the curriculum provide a basis for students to identify and/or communicate their core beliefs regarding the meaning of sex in their personal, family, cultural and spiritual lives?
    ☐ Yes ☐ No ☐ Not Sure

8. Does the curriculum provide an opportunity for students to recognize any cognitive dissonance between core values and personal attitudes?
    ☐ Yes ☐ No ☐ Not Sure

TARGET 2 SUMMARY

Strong Examples:

_____

_____

_____

_____

NOTES:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

SYSTEMATIC METHOD FOR ASSESSING RISK-AVOIDANCE TOOL (SMARTool)

TARGET 2 SUMMARY

Concerns or Red Flags:

_____

_____

_____

_____

Questions:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Rating: Overall, to what extent does the curriculum support personal attitudes and beliefs that value sexual risk avoidance?

☐ Strongly supports (many examples; strong messages)

☐ Generally supports (overall support, with a few minor exceptions)

☐ Somewhat supports (mixed; areas of both strength and weakness)

☐ Does not support (few strong examples; weak or diluted messages)

Target #3: Acknowledge and address common rationalizations for sexual involvement (page 22)

1. Does the curriculum help learners recognize common rationalizations that teens use to become sexually involved?
   ☐   Yes   ☐   No   ☐   Not Sure

2. Do learning exercises or scenarios help students recognize that justifications for sexual involvement fail to reduce potential adverse consequences?
   ☐   Yes   ☐   No   ☐   Not Sure

3. Does the curriculum help students develop and practice skills to respond to common rationalizations for teen sex?
   ☐   Yes   ☐   No   ☐   Not Sure

4. Does the curriculum assist sexually experienced youth to understand the reasons and develop skills to avoid continued sexual involvement?
   ☐   Yes   ☐   No   ☐   Not Sure

TARGET 3 SUMMARY

Strong Examples:

_____

_____

_____

_____

_____

Concerns or Red Flags:

_____

_____

_____

_____

_____

_____

NOTES:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

TARGET 3 SUMMARY

Questions:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Rating: Overall, to what extent does the curriculum acknowledge and address common rationalizations for sexual involvement?

☐ Strongly addresses rationalizations (clear, compelling examples)

☐ Generally addresses (several good examples, but could be stronger and clearer)

☐ Somewhat addresses (a few examples, but weak)

☐ Does not address

Target #4: Improve perception of and independence from negative peer and social norms (page 23)

1. Does the curriculum provide activities for students to consider positive and negative peer perceptions regarding sexual and other risk behaviors?
   ☐ Yes ☐ No ☐ Not Sure

2. Does the curriculum provide an opportunity for students to consider positive and negative media depictions regarding sexual and other risk behaviors?
   ☐ Yes ☐ No ☐ Not Sure

3. Does the curriculum illustrate positive peer norms?
   ☐ Yes ☐ No ☐ Not Sure

4. Does the curriculum promote the confidence and skill to resist negative pressure from peers?
   ☐ Yes ☐ No ☐ Not Sure

5. Does the curriculum teach, demonstrate, and practice the skills of independent decision-making related to avoiding sexual involvement?
   ☐ Yes ☐ No ☐ Not Sure

TARGET 4 SUMMARY

Strong Examples:

_____

_____

_____

_____

Concerns or Red Flags:

_____

_____

_____

_____

_____

NOTES:

SYSTEMATIC METHOD FOR ASSESSING RISK-AVOIDANCE TOOL (SMARTool)

TARGET 4 SUMMARY

Questions:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Rating: Overall, to what extent does the curriculum improve perception of and independence from negative peer and social norms?

☐ Strongly improves perception/independence (clear discussion of norms and strategies for independence)

☐ Generally improves perception/independence (good examples, but could be clearer/stronger)

☐ Somewhat improves (a few examples, but weak overall)

☐ Does not improve

Target #5: Build personal competencies and self-efficacy to avoid sexual activity (page 24)

1. Does the curriculum contain messages and activities that encourage self-protective competencies when confronted with sexual and other risks?
   ☐ Yes   ☐ No   ☐ Not Sure

2. Does the curriculum promote critical thinking and decision-making skills that protect themselves and others physically, emotionally, and mentally?
   ☐ Yes   ☐ No   ☐ Not Sure

3. Are learners given multiple opportunities to observe and practice negotiation and risk refusal skills?
   ☐ Yes   ☐ No   ☐ Not Sure

4. Does the curriculum provide opportunities for learners to explain and defend their personal choices?
   ☐ Yes   ☐ No   ☐ Not Sure

5. Are support systems such as parents, personal and family rules, schools, faith groups and/or community organizations recognized as contributory to self-efficacy?
   ☐ Yes   ☐ No   ☐ Not Sure

6. Are sexually experienced youth provided with appropriate information, skills, and support to avoid future or continued sexual involvement?
   ☐ Yes   ☐ No   ☐ Not Sure

7. Are previously sexually coerced/abused individuals provided with appropriate information and support to avoid sexual involvement and seek assistance as needed?
   ☐ Yes   ☐ No   ☐ Not Sure

TARGET 5 SUMMARY

Strong Examples:

_____

_____

_____

_____

_____

_____

NOTES:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

SYSTEMATIC METHOD FOR ASSESSING RISK-AVOIDANCE TOOL (SMARTool)

TARGET 5 SUMMARY

Concerns or Red Flags:

_____

_____

_____

_____

Questions:

_____

_____

_____

_____

_____

_____

_____

_____

Rating: Overall, to what extent does the curriculum build personal competencies and self-efficacy to refuse sex?

☐ Strongly builds competencies and self-efficacy (e.g., specific skill-building and strategies; opportunities for practice and feedback)

☐ Generally builds competencies and self-efficacy (skill-building addressed, but could be stronger and more specific)

☐ Somewhat builds (few or weak examples)

☐ Does not build (no skill-building)

Target #6: Strengthen personal intention and commitment to avoid sexual involvement (pages 24-25)

1. Does the curriculum assist the learner in developing and/or strengthening intentions to wait for sexual involvement?
   ☐ Yes   ☐ No   ☐ Not Sure

2. Does the curriculum provide examples of the benefits of a strong personal commitment to avoid adolescent sex?
   ☐ Yes   ☐ No   ☐ Not Sure

3. Does the curriculum promote and practice skills to act on personal intentions to delay sex?
   ☐ Yes   ☐ No   ☐ Not Sure

4. Does the curriculum encourage a private and/or public commitment to avoid sexual involvement?
   ☐ Yes   ☐ No   ☐ Not Sure

5. Does the curriculum help learners identify possible challenges or threats to their intentions and identify personal strategies for resisting those threats?
   ☐ Yes   ☐ No   ☐ Not Sure

TARGET 6 SUMMARY

Strong Examples:

_____

_____

_____

_____

Concerns or Red Flags:

_____

_____

_____

_____

_____

TARGET 6 SUMMARY

Questions:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Rating: Overall, to what extent does the curriculum strengthen personal intention and commitment to avoid sexual involvement?

☐ Strong emphasis on strengthening personal intention/ commitment (clear messages; specific tools)

☐ Generally strengthens intention/commitment (good messages and strategies; could be improved)

☐ Somewhat strengthens intention/commitment (some messages and strategies, but weak overall)

☐ Does not strengthen intention/commitment

Target #7: Identify and reduce the opportunities for sexual involvement (page 26)

1. Does the curriculum teach the learner to recognize and avoid high-risk situations (such as early and frequent dating, unsupervised parties, coercion, or exploitation by older individuals)?
   ☐ Yes ☐ No ☐ Not Sure

2. Does the curriculum encourage support systems and guidelines (such as family rules, parent involvement, structured activities, volunteer and faith activities, etc.) to minimize opportunities associated with adolescent sexual involvement?
   ☐ Yes ☐ No ☐ Not Sure

3. Does the curriculum identify and reduce the opportunity for sexual involvement by promoting the avoidance of drugs, alcohol, coercive behaviors, and violence?
   ☐ Yes ☐ No ☐ Not Sure

4. Does the curriculum provide scenarios, examples, or skills to assist learners in recognizing and refusing sexually vulnerable situations?
   ☐ Yes ☐ No ☐ Not Sure

TARGET 7 SUMMARY

Strong Examples:

_____

_____

_____

_____

Concerns or Red Flags:

_____

_____

_____

_____

NOTES:

TARGET 7 SUMMARY

Questions:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Rating: Overall, to what extent does the curriculum help identify and reduce the opportunities for sexual involvement?

☐ Extremely helpful in identifying and reducing opportunities (clear examples; reinforced messages; specific strategies)

☐ Generally helpful (good examples and strategies; could be stronger)

☐ Somewhat helpful (some examples, but weak overall)

☐ Not very helpful in identifying/reducing opportunities

Target #8: Strengthen future goals and opportunities
(pages 26-27)

1. Does the curriculum provide exercises to allow the learner to describe his or her future life?
   ☐ Yes ☐ No ☐ Not Sure

2. Are there lessons that reinforce the potential for positive future opportunities (such as personal health, career opportunities, supporting friendships, strong family ties, and/or fulfilling marriage, etc.)?
   ☐ Yes ☐ No ☐ Not Sure

3. Does the curriculum help learners create connections between sexual risks and future outcomes?
   ☐ Yes ☐ No ☐ Not Sure

4. Is the learner encouraged to identify personal attributes they may desire for themselves and/or a future spouse or partner?
   ☐ Yes ☐ No ☐ Not Sure

TARGET 8 SUMMARY

Strong Examples:

_____

_____

_____

_____

_____

Concerns or Red Flags:

_____

_____

_____

_____

_____

_____

NOTES:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

TARGET 8 SUMMARY

Questions:

Rating: Overall, to what extent does the curriculum help strengthen future goals and opportunities?

☐ Strong, clear emphasis on future goals and opportunities

☐ Generally emphasizes future goals and opportunities (good examples, but could be stronger or clearer)

☐ Somewhat emphasizes (some examples, but weak overall)

☐ Does not emphasize future goals and opportunities

Target #9: Partner with parents (page 27)

1. Does the curriculum recognize the role that parents, family, and caregivers play in a student's attitudes, beliefs and behaviors?
   ☐ Yes ☐ No ☐ Not Sure

2. Does the curriculum provide or identify resources to equip parents to talk with their children about important topics pertinent to relationships, sex, and substance use?
   ☐ Yes ☐ No ☐ Not Sure

3. Does the curriculum provide materials or resources to offer a parent workshop or information session?
   ☐ Yes ☐ No ☐ Not Sure

4. Does the curriculum provide homework assignments that can be completed through collaboration between the parent and child?
   ☐ Yes ☐ No ☐ Not Sure

TARGET 9 SUMMARY

Strong Examples:

_____

_____

_____

_____

_____

Concerns or Red Flags:

_____

_____

_____

_____

_____

NOTES:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

TARGET 9 SUMMARY

Questions:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Rating: Overall, to what extent does the curriculum encourage and equip the program to partner with parents?

☐ Strong encouragement/emphasis on partnering with parents

☐ Generally encourages/emphasizes partnering with parents

☐ Somewhat encourages/emphasizes partnering with parents

☐ Does not encourage, emphasize, or equip partnering with parents

Part III - QUALITY IMPROVEMENT:
The "What's Working" Assessment (pages 28-29)

1. Does the curriculum include valid and reliable pre- and post-testing instruments?
   ☐ Yes ☐ No ☐ Not Sure

2. Are additional sources of data suggested in order to support program monitoring of important outcomes?
   ☐ Yes ☐ No ☐ Not Sure

NOTES:

CURRICULUM SUMMARY	CURRICULUM
PART I	**Yes / No / Not Sure**
Is the curriculum consistent with your organizational goals and does it address the steps needed to meet those goals?	
Has the curriculum under consideration been formally evaluated and shown to have affected behavior change on some or all of the targets evaluated?	
Does the curriculum use promising approaches reflecting evaluated interventions or curricular content?	
Does the curriculum demonstrate a sound model of changing knowledge, attitudes, skills, intentions, and behavior consistent with accepted behavioral and educational theories?	
Does the curriculum offer adequate dosage, for example, multiple sessions per grade, and sessions for multiple grade levels?	
Do high risk populations have an opportunity for more intensive interventions or lesson sessions?	
Does the curriculum coordinate with other health or character-based education in the school or organization?	
Is the curriculum flexible and inclusive to address learner needs across varied demographic student groups?	
Is the curriculum flexible to meet or complement program needs based on coordination with existing health education requirements and time constraints?	
Does the curriculum provide guidance for identifying teaching staff who are comfortable with and supportive of the sexual risk avoidance message?	
Does the curriculum developer provide teacher training through workshops, conferences or other venues to improve knowledge and skills?	
Are materials available to in-service all organization personnel?	
Are content updates and curricular experts available to assure continuous improvement?	
Are teacher materials, supplemental resources and lesson plans easy to use and appropriate for effective lessons?	
PART II	**Strong / General / Somewhat / Not**
Target #1: Enhance the knowledge of a) physical development and sexual risks and b) healthy relationships	
Target #2: Support personal attitudes and beliefs that value sexual risk avoidance	
Target #3: Improve perception of and independence from negative peer and social norms	
Target #4: Build personal competencies and self-efficacy to refuse sex	
Target #5: Strengthen personal intention and commitment to avoid sexual involvement	
Target #6: Identify and reduce the opportunities for sexual involvement	
Target #7: Acknowledge and address common rationalizations for sexual involvement	
Target #8: Strengthen future goals and opportunities	
Target #9: Partner with parents	
PART III	**Yes / No / Not Sure**
Does the curriculum include valid and reliable pre- and post-testing instruments?	
Are additional sources of data suggested in order to support program monitoring of important outcomes?	

THINK ABOUT YOUR PROGRAM CHECKLIST

PROGRAM

PART I - PLANNING: The "Why, When and Who" for Sexual Risk Avoidance Programs (pages 10-13)

1. Who is the target audience?	Options	Answers / Comments
a) What is the grade level target?	↘ 6th & 7th grades ↘ 8th grade ↘ High school	
b) What language considerations do you need to be aware of in the target population?	↘ Languages spoken in the community ↘ Reading proficiency ↘ Health literacy ↘ English as a second language ↘ Other	
c) What past health education have the students received?	↘ Relationship education ↘ Health education ↘ Pubertal science ↘ Other	
d) What unique cultural factors influence the target audience?	Cultural attitudes regarding: ↘ Adolescent relationships ↘ Teen sex ↘ Teen pregnancies ↘ Other	
e) What family structure patterns make up the target audience?	↘ Single families ↘ Married families ↘ Cohabiting families ↘ Blended families ↘ Homeless families	
f) What baseline information regarding teen sexual behavior is available? *Note: this information may be available through the county health department, CDC, state-level Youth Risk Behavior Survey data, or additional state and federal health sites.*	↘ Teen fertility rates ↘ Teen birth rates ↘ Number of sexually active youth ↘ Rates of STIs ↘ Other	
2. What are the goals that the sexual risk avoidance program intends to achieve?		
3. What youth behaviors can help achieve those goals?		
4. What youth risk and protective factors affect those behaviors?		
5. What activities, interventions and interactions can improve these protective factors?		
6. What knowledge, attitude, intent and behavior changes are expected in youth during or after participation in the program?		

PART III - QUALITY IMPROVEMENT: The "What's Working?" Assessment (pages 28-29)

1. Is there a data collection method in place to measure what changes in knowledge, attitudes, intentions and/or behaviors are observed in program participants?	
2. Is there a data collection method in place to measure what components of the intervention are used and who is receiving the intervention?	
3. Is there a process in place to review learner outcomes and program implementation to identify opportunities to improve effectiveness?	

PART IV - COMMUNITY: The "Where" for Activities That Support Teens (pages 30-33)

Parents/Guardians (pages 30-31)	
1. Are there media resources (PSAs, websites, etc. for parents?)	
2. Are parents in the community involved in addressing different community issues (youth sexual behavior, drug and alcohol use, violence, etc)?	

SYSTEMATIC METHOD FOR ASSESSING RISK-AVOIDANCE TOOL (SMARTool)

3. Are parent workshops offered in order to provide encouragement and information to parents?	
4. Are additional events (parents/teacher groups, parenting courses, marriage and relationship education, etc) offered for parents?	
5. Can partnerships be developed with organizations in the community that reach out to parents?	
6. Are different activities available that enhance and promote connectedness, communication, increased involvement between parents and their youth as well as increased supervision and monitoring by parents of their youth?	
Media (page 31)	
1. What media resources are available in your community?	
2. How well do local media know the issues and youth needs that presently exist in the community?	
3. How willing are the local media to collaborate with organizations that encourage youth sexual risk avoidance?	
4. Does the community newspaper, radio or television run PSAs and/or sponsor activities that encourage healthy youth activities and behaviors?	
5. Are the media resources valued and pertinent to the target audience?	
6. Have new methods of social marketing and texting been implemented to reinforce delaying sexual activity?	
7. Have journalism departments been contacted in order to develop partnerships to promote the delay of youth sexual involvement?	
Community Organizations (pages 31-32)	
1. Does the community promote neighborhood involvement and improvement activities such as neighborhood watch, block parties, neighborhood clean-up events, or other local gatherings and get-togethers?	
2. Would leaders from youth sports, youth services clubs, or after-school activity programs benefit from training on risk-avoidance education?	
3. Are there volunteering options for youth?	
4. Is there a mentoring program in place? If not, can one be started?	
5. Do you have the support of local government officials and different agencies within the community?	
6. Are there community resources in place capable of responding to teen pregnancy, sexual assault, or other youth risks?	
Community Health Resources (pages 32-33)	
1. Are community health providers included in the development, selection, and implementation of the sexual risk-avoidance program?	
2. Are there partnerships with those who provide health services to encourage sexual risk avoidance?	
3. Are continuing education trainings available to health personnel to strengthen support to youth for delay of sexual involvement?	
4. Are relationships developed and maintained with school nurses?	
5. Are health providers trained to equip sexually active youth with the insights, skills and support to avoid future sexual activity?	
Faith-Based Organizations (page 33)	
1. Are religious leaders and lay leaders informed about your program and organizational goals? Do you use their expertise and influence?	
2. Are risk-avoidance materials and relevant data available for review by the faith community?	
3. Is the faith community engaged in activities to reduce adolescent health risk behaviors, such as sexual intercourse or teen pregnancy?	
4. Are faith based organizations willing to sponsor or host parenting education, health education as well as parent-child activities?	

APPENDIX

The SMARTool Development Process

The SMARTool was developed through a cooperative agreement between CDC's Division of Adolescent and School Health and The Center for Relationship Education (WAIT Training). The SMARTool document is the product of an extensive process of development, review, and fine-tuning that included the following major steps:

↘ Reviewed existing research in the areas of risk avoidance education for sexual involvement, substance use (drug, alcohol, and tobacco), violence, comprehensive sexuality education, abstinence education, community youth programming, parent involvement, and educational methodologies.

↘ Convened two Expert Panel meetings attended by experienced researchers, public policy personnel, physicians, educators, and youth program developers.

↘ Initiated development of the SMARTool to address both Expert Panel concerns as well as CDC goals.

↘ Continued refinement of the SMARTool document and resources in collaboration with the CDC-DASH project officer, two PhD experts in youth sexuality program evaluation, and a physician with expertise in public policy and health interventions.

↘ Conducted two formal input sessions in which the SMARTool was presented to a panel representative of prospective users to secure feedback regarding content, relevance and usability.

↘ Obtained document review by professionals with expertise in evaluation, adolescent mental health, education, adolescent health, and abstinence education.

↘ The SMARTool went through a CDC-DASH Review process to ensure alignment with CDC goals. It has been approved for dissemination.

SAMPLE LOGIC MODEL

A. Program Goal

↗ Prepare for healthy adult relationships, marriage and family formation in their future

↗ Reduce number of sexually active teens

↗ Reduce teen and non-marital pregnancies

↗ Reduce rates of STIs

↗ Reduce schools problems (academic and emotional difficulties, drop-out rates) associated with teens being sexually active

B. Behavioral Goal

Teens will:

↗ Demonstrate healthy family/peer relationships

↗ Demonstrate good health choices by avoiding health risks

↗ Abstain from sex

C. Factors Affecting Behaviors

Enhancing knowledge related to sexual development, personal relationships, and sexual risks

Supporting personal attitudes and beliefs that value sexual risk avoidance

Improving insight on and independence from negative peer and social norms

Building self-efficacy and personal competencies

Strengthening personal intention and commitment to avoid sexual involvement

Reducing opportunities for sexual involvement

Addressing rationalizations for sex

Strengthening for future goals and opportunities

Partnering with parents

D. Activities, Interventions and Interactions

Provide information on puberty, pregnancy, STIs, healthy relationships, role of substance use, etc.

Identify important personal and societal values supporting sexual risk avoidance and future faithful relationships, etc.

Analyze and discuss negative peer and social norms and develop independent responses, etc. through games and role-playing

Develop critical thinking skills, promote effective decision-making, and practice refusal skills

Help students identify and communicate their intention to avoid sexual involvement and develop commitment to wait for sex

Involve students in role-playing and discussion regarding situations in which teens may be pressured to have sex and how to avoid sex

Analyze rationalizations used by youth to be involved in sex and identify potential outcomes, etc.

Involve youth in planning for their 5-, 10- and 30-year future life plans regarding education, career, relationships, marriage, and family formation

Provide parent education and involvement to promote parent/child communication, connectedness, and closeness as well as time spent together

SAMPLE LOGIC MODEL

A. Program Goal

B. Behavioral Goal

C. Factors Affecting Behaviors

D. Activities, Interventions and Interactions

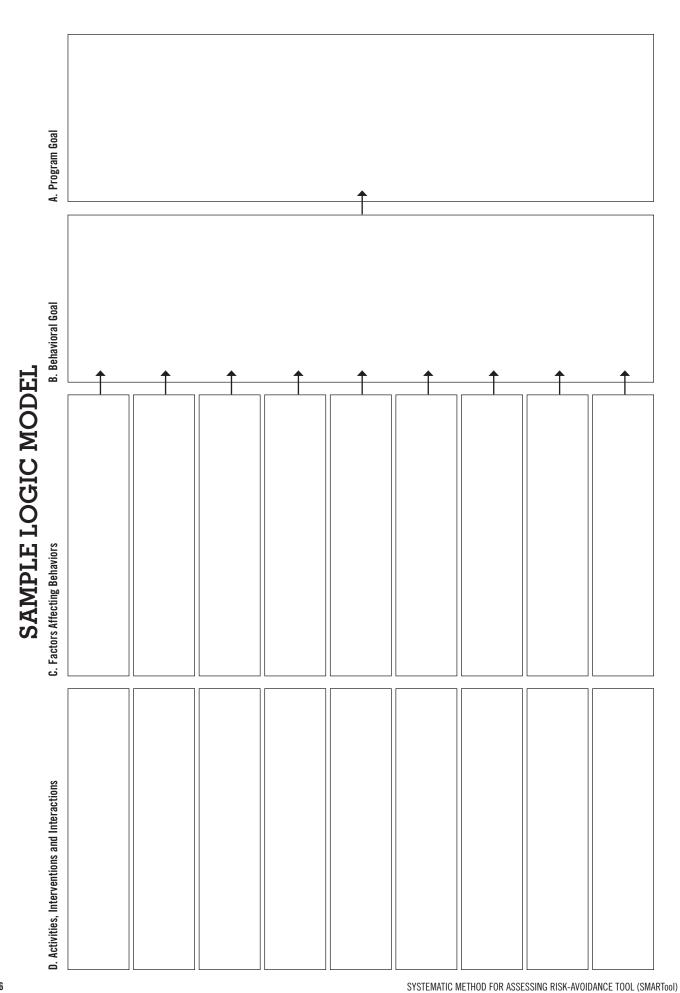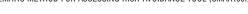SYSTEMATIC METHOD FOR ASSESSING RISK-AVOIDANCE TOOL (SMARTool)

REVIEW OF PUBLISHED AGE-APPROPRIATE TOPICS PROCESS

Many health and education entities as well as state and federal agencies have carefully considered appropriate topics for inclusion in grade-level curricula. In order to identify common themes, eight sets of standards or guidelines were selected for review. Each standard was carefully reviewed by an expert panel consisting of a health educator, a physician, and a research coordinator. Inter-rater reliability was high and agreement on topics was carefully assessed to avoid over- or under-interpretation of the language found in the standards.

All suggested topics were recorded and designated by category (health information, relationship education, decision-making and related skills, legal and protective information, etc.). After documenting the suggested topics by grade level, the results for each standard were aggregated to determine "Universal Topics" recommended by at least six of the eight standards, "Common Topics" recommended by three to five of the eight standards.

Although this preliminary review of topics provides important information for sexual risk-avoidance programs, it is not intended to dictate curricular content.

Target population needs, program goals, and other educational initiatives should be considered.

Age-Appropriate Topic Grid Resources

National Standards:
Centers for Disease Control and Prevention. *Health Education Curriculum Analysis Tool.* Atlanta: CDC; 2007.

Joint Committee on National Health Education Standards. (2007). National Health Education Standards: Achieving Excellence (2nd Ed). American Cancer Society.

National Committee on Science Education Standards and Assessment. (1996). National Science Education Standards. National Research Council.

Medical Standards:
Santa Maria, D., Thickstun, P. (2006). *Guidelines for Sexual Health Education K-12: Key topics and developmental messages.* Medical Institute for Sexual Health, Austin Texas.

Scott & White Hospital (Texas A & M University Health Science Center, Teaching Hospital) Sex Education Program: Worth the Wait © (2008).

State Standards:
Colorado Department of Education. (2009).

Comprehensive Health & Physical Education Standards.

Michigan Department of Education. (1998). Health Education Content Standards and Benchmarks.

Pennsylvania Department of Education. (2002). Academic Standards of Health, Safety and Physical Education.

EDUCATIONAL METHODS TO TARGET SPECIFIC FACTORS TABLE PROCESS

In order to understand the types of educational methods that are commonly used by youth sexual risk avoidance or abstinence curricula, the Institute for Research and Evaluation (IRE) was asked to select the curricula used by effective programs over the past 10 years, as determined by past and current evaluations conducted by IRE. Nine curricula comprised their convenience sample (i.e., readily available study material). The nine curricula identified had both available curricular materials and adequate evaluative data. Each curriculum was reviewed to determine whether the recommended target factors affecting youth sexual behavior were addressed. When these targets were identified, researchers assessed the educational methods that were recommended

by the curriculum to teach that target.

The data from this curriculum review were collected in a grid matrix that identified the nine target factors on the left-hand column, with possible educational methods identified across the top of the grid. Some methods of instruction, such as lecture, worksheets and discussion, were used frequently; however, these methods were often complemented by additional activities such as object lessons, games, and role-play. The data from each curriculum were aggregated to identify trends.

This preliminary assessment of curricula confirms that many curricula providers are using a variety of educational methods to teach each target. For example, to "build personal competencies and self-efficacy to refuse sex," seven of nine curricula used lecture, all nine used refusal skills and role play, six of nine used object lessons, and six of nine used discussion. Similar patterns were noted for many of the targets.

This review was conducted on a convenience sample of readily available curricula and positive evaluative results from a single evaluative source (IRE). The results do not represent the many other curricula that may have demonstrated effectiveness in evaluations conducted by other researchers. Further assessment of

educational methods based on other curricula may illustrate additional effective teaching interventions and trends.

EDUCATIONAL METHODS TARGETING SPECIFIC FACTORS TABLE RESOURCES

Duran, M. (1992). *Reasonable Reasons to Wait: the Keys to Character, a Character-Based Sexuality Curriculum*. Virginia: A Choice in Education

Franie, K., Ritterbush, D. D. (2006). *Think On Point (Formerly Why kNow)* (2nd ed.). Tennessee: On Point

Heritage Keepers. (1999). *Heritage Keepers Abstinence Education Teacher Manual and Handouts*. South Carolina: Heritage Community Services.

Grenfeld, J. (2009). (5th ed). *Foundations*. Washington: AWARE, Inc.

Let's Talk Healthy Relationships PowerPoint presentation, Let's Talk: Anchorage, Alaska: Let's Talk Alaska. (www. letstalkalaska.com).

Mackenzie, J. (2003). *WAIT Training* (2nd ed). Colorado: The Center for Relationship Education.

Panzer, R. (2009). *Relationship Intelligence Student Journal: A Course in Character and Relationships* (10th ed.). New Jersey: Center for Educational Media.

Russell, N., Papst, M. (Eds.). (2008). *Choosing the Best: Path*. Atlanta, Georgia: Choosing the Best Publishing, LLC.

Vissani, B. (Eds). (2005). *YES You Can… Experience True Freedom! Curriculum, Level 1*. New Jersey Physicians Advisory Group: Columbus Campus, St. Michael's Medical Center.

Definitions of Educational Methods[*]

↘ **Lecture** — Lecture is a systematic, teacher-centered instructional approach in which the teacher presents information to students. Lecture is also known as expository teaching or direct instruction.

↘ **Worksheet Exercise** — Worksheet activities are used to help students recall or apply learned information. Worksheets may be used as a closure activity to summarize information. Examples include fill-in-the blanks, short answer questions, crossword puzzles, and word searches.

↘ **Media** — Media resources are used to engage students in learning

through prepared visual and/or auditory formats. Examples include video, Web conferencing, podcasts, or music.

⬎ **Discussion Group/Problem-Solving** — Discussion is used as a learning method when students and teachers converse back and forth to share information, observations, opinions, or to develop concepts or resolve a problem. Discussion may include problem-solving, question-and-answer sessions, or debates and generally promotes the application of knowledge and critical thinking to address topics or problems.

⬎ **Negotiation and Refusal Skills/Role-Playing** — This cluster of educational methods provides a set of skills designed to help students recognize, analyze and avoid high-risk behaviors by strengthening personal competency. Examples may include saying "no," preparing and practicing responses, giving reasons not to participate, and leaving the situation. Role-playing

is most effective when it provides the opportunity for students to practice skill in a repetitive manner using varied scenarios.

⬎ **Games** — Games are group activities that reinforce learning through involving students as participants. Games sometimes allow learners to compete one-to-one or team-to-team to improve student recall and apply learned information.

⬎ **Drama/Skits** — Drama and skits are live performances by students, teachers, or mentors from a scripted source. Drama and skits can be used for modeling, sharing information, or stimulating discussion in order to provide a context for new information.

⬎ **Essay or Journal** — Journaling or essay development requires students to engage in writing activities. Students use journals to record personal reflections. In dialogue journals, the student participates in a written conversation with

the teacher or another student. An essay is a short written work in which the author expresses his or her analysis or point of view based on the assigned topic.

⬎ **Object Lessons** — An object lesson is the use of a physical activity, an image or object as the basis of a lesson. The object lesson is a practical representation of an abstract idea or principle that allows learners to understand or apply new knowledge.

⬎ **Stories/Testimonies** — Stories and testimonies are individual experiences shared to illustrate potential positive or negative outcomes that are relevant to the topic covered. Stories and testimonies may be shared in a recorded, written, or live format.

⬎ **Personal Commitments** — Students are given a formal or informal opportunity to express the personal intention to achieve a desired goal. Some entities offer a commitment form or pledge card.

---

*   Definitions adapted from: Cooper, J.D., Kiger, N.D. (2006). *Literacy: Helping Children Construct Meaning*. 6th ed. Boston: Houghton Mifflin Company. Cruickshank, D.R., Jenkins, D.B., Metcalf, K.K. (2009). *The Act of Teaching*.5th ed. New York: McGraw-Hill. Van de Walle, J.A., Karp, K.S., Bay-Williams, J.M. (2010). *Elementary and Middle School Mathematics: Teaching Developmentally*. 7th ed. Boston: Allyn & Bacon.