Science-Based Approaches (SBAs) have a number of specific characteristics. First, the development and implementation of an SBA must be fully informed by rigorous research. Second, an SBA must use strategies accepted in the scientific community as thorough and reliable. Third, the evaluation of an SBA must have shown it to be effective in achieving positive and intended outcomes, thereby suggesting that the approach will achieve similar outcomes when applied to populations similar to the original target group. Programs that fit these criteria are often published in peer-reviewed journals, helping the reader to know that the evaluation was rigorous.

In particular, a science-based approach in teen pregnancy prevention is a curriculum and/or program that has been shown to:

1. Reduce the incidence of unwanted sexual health outcomes, such as pregnancies and sexually transmitted infections (STIs) among youth exposed to the program relative to a control or comparison group; and/or
2. Influence the sexual behavior of youth in a desired direction. For example, it might successfully: reduce the percent of youth who initiate sex by a certain age; reduce the incidence of unprotected sex among sexually active program participants; reduce the number of sexual partners among sexually active youth; increase the number of sexually active youth who consistently use condoms or contraception; and/or increase the number of sexually active youth who remain in a monogamous relationship. These changes must be measured in relation to a control or comparison group.

Talking points, like the ones listed here, can help program planners and advocates effectively educate and persuade organizations and decision makers to rely on science-based approaches and programs for teen pregnancy prevention. These talking points may not answer every question, but they can help make clear, coherent arguments for science-based programs and approaches.

The left column features critical talking points. The column on the right provides background information that may be useful in responding to questions or challenges.

**Basic Talking Points You Need to Know...**

1. Preventing teen pregnancy and sexually transmitted infections (STIs) among youth should be a priority for our community.

- The NCHS reports a 5 percent national increase between 2005 and 2007 in teenage birthrates in the U.S; from 40.5 to 42.5 births per 1,000 young women aged 15-19. Nearly half a million 15- to 19-year old women (445,045) gave birth in 2007.¹
- Among industrialized countries, the United States has among the highest rates of teen birth and STIs.
- Rates of teen pregnancy and sexually transmitted infections (STIs) are higher in the United States than in other developed countries. For example, in the United States:
  - the teen birth rate is over 9 times greater than in the Netherlands;
  - the HIV rate among teens is 4.5 times greater than in Germany;
  - the teen gonorrhea rate is 30 times higher than rates in the Netherlands.²
European youth initiate sex at about the same general age as do U.S. youth but they report fewer sexual partners and use protection more consistently. In many European countries, adults believe that teens have the right to complete, accurate information about their sexual health, that they deserve respect, and that they have the responsibility to protect themselves. Adults also believe that society has the responsibility to provide young people with the tools they need to safeguard their health.

2. ‘Abstinence-only’ programs are ineffective in changing behaviors related to teen pregnancy and/or STIs.

- For many years “abstinence-only programs” received federal funding and were popular with schools; however, evaluations and meta-analyses have reported no evidence that these programs are effective in changing teens’ sexual behaviors or in reducing the incidence of teen pregnancy or STIs. In fact, there is evidence that youth exposed to abstinence-only programs are less likely than their peers to protect themselves against STIs and teen pregnancy.

- One popular abstinence-only program, “Baby Think It Over,” uses expensive simulator dolls. However, evaluation has shown that it has no effect on teens’ sexual behaviors or sexual health outcomes.

- The federal government’s own evaluation of five of the “most promising” abstinence-only programs found that these programs had no effect – youth who received them were no more likely to abstain from sex and did not have fewer sexual partners than youth who were not in the programs.

- In a recent review commissioned by the National Campaign to Prevent Teen and Unplanned Pregnancy of all sex education programs that met a set of rigorous scientific standards, researcher Douglas Kirby, PhD, found that no abstinence-only program has shown with strong evidence that it positively affects sexual behavior among youth.

3. To find programs that are effective, communities should use three elements to guide the choice, adaptation, and use of prevention programs. These three elements are a) evaluated programs, b) research on risk and protective factors, and c) the community’s core values.

- Using these three factors as guidelines can help communities and organizations use their time and resources most effectively.

- The only sex education programs that have been proven through scientifically reliable research methods to reduce teen pregnancy or STI rates and/or sexual risk behaviors are those that emphasize both delaying sex and also using contraception.

- Core values that empower youth to make healthy choices include:
  - respecting young people;
  - acknowledging their right to accurate information and confidential health care; and
  - believing that youth can and will act responsibly when they also have the tools they need to make responsible decisions.

4. Experts have identified a number of effective, science-based programs that reduce sexual risk taking behaviors and/or improve teens’ sexual health outcomes (rates of pregnancy or STIs).

- Research has shown that programs that only produce changes in attitudes, beliefs, and/or knowledge have no long-term effect on sexual risk behaviors.

- A science-based program is one that has been proven to reduce risky sexual behavior and increase healthy sexual behavior among youth and/or to improve sexual health outcomes (rates of teen pregnancy and/or STIs).

- In its publication Science & Success, Advocates for Youth has identified 26 science-based programs in the United States, not one of which is “abstinence-only” or “abstinence-only-until-marriage”. With the exception of three youth development programs, all of these programs provide complete and accurate sexual health information. All 26 programs provide youth with opportunities to build skills and self-confidence. All 26 programs trust youth to make wise choices. When comparing program youth to control youth, among the 26 programs:
  - 14 helped youth delay or postpone their first sexual experience;
  - 14 increased sexually active youth’s use of condoms;
  - 9 increased their use of contraception;
1. Decreased the number of teen births or rates of teen pregnancy;
2. Increased use of contraception and delayed initiation of sex;
3. Decreased the teen pregnancy/teen birth rate and delayed initiation of sex; and
4. Reduced the incidence of STIs.\textsuperscript{9,10}

5. To be proven effective, programs must meet rigorous evaluation standards.

- Among other criteria, all the programs recognized by Advocates for Youth in \textit{Science \& Success} used at least a quasi-experimental evaluation design that assessed at least 100 youth in comparing those receiving the program with those not receiving it.\textsuperscript{9,10}
- Evaluators must have collected data from both treatment and comparison groups before and after the intervention and at least three months after the program.\textsuperscript{9,10}
- In some effective programs, evaluators continued to collect data for several years after the program.\textsuperscript{10}
- Evaluation must have found that the program positively affected sexual health outcomes and/or improved at least two sexual risk behaviors among program youth compared to non-program youth.\textsuperscript{9,10}

6. Several programs exist that are proven effective for diverse populations, ages, and locales.

- Assessing factors such as race, gender, age, sexual experience, sexual orientation, and geographic location can help a community identify an appropriate program for its teens.\textsuperscript{10}
- Each teen sub-group is equally important and deserves appropriately targeted services, especially when a sub-group experiences disproportionately higher rates of teen pregnancy or STIs.
- For instance, because teen pregnancy rates are higher among African-American and Latino teens,\textsuperscript{12} there may be a greater need for targeted programs. Specific programs have been found effective with urban Hispanics, urban and rural black youth, pregnant and parenting teens, sexually experienced teens, and sexually inexperienced teens.\textsuperscript{10}

7. Americans overwhelmingly support the use of programs that provide youth with comprehensive information about sexual health.

- A 2007 national poll conducted by an independent research firm found that 73 percent of adults and 56 percent of teens believe that young people need more information about delaying sex and about using contraception.\textsuperscript{13}
- A 2004 poll found that:
  - 95 percent of parents of junior high youth and 93% of parents of high school youth believed that schools should teach about birth control and other methods of preventing pregnancy;
  - 100 percent of junior high parents believed that schools should teach about STIs other than HIV and AIDS;
  - 99 percent of high school parents believed schools should teach about HIV and AIDS;
  - 98 percent of high school parents believe schools should teach about STIs other than HIV/AIDS.\textsuperscript{14}
- One independent study found that a majority of voters in nearly every demographic category (including Democrats, Republicans, and independents as well as Catholics and evangelical Christians) supported comprehensive sex education in schools.\textsuperscript{15}

8. Preventing teen pregnancy, STIs, and HIV costs far less than providing services and programs for teen parents and their children, and treatment of STIs and HIV/AIDS.

- Compared to spending on prevention, governments spend a disproportionate amount on treatment and care services related to negative sexual health outcomes.
  - In 2004, the federal government spent approximately $9.1 billion on services related to teen childbearing; $8.6 million of this was spent on birth-related care for teens ages 17 and younger.\textsuperscript{16}
  - Over half (52 percent) of all mothers on welfare had their first child as a teenager.\textsuperscript{17}
In 2000, the cost of treating STIs among 15- to 24-year-old youth was $6.5 billion.18

Between 1982 and 2007, federal and state governments spent over $1.5 billion on ‘abstinence-only’ programming.19 Yet these programs have not been shown to be effective at delaying sexual initiation or reducing sexual risk-taking.

When evaluating one teen pregnancy and STI prevention curriculum, researchers found that for every dollar invested in the program, $2.65 in total medical and social costs were saved.20 In 2005, Amaral and Foster estimated taxpayer money saved in teen pregnancies prevented by Family PACT, a teen pregnancy prevention program in California. They found that this program not been successful in helping young people prevent teen pregnancy, the subsequent births to teens would have cost over $1.1 billion after two years and $2.2 billion after five years.21

References

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