

## Federally Funded Teen Pregnancy Prevention Programs: Not What They Claim to Be

### **FULL REPORT**

Congress has approved \$75,000,000 in 2010 funding to establish a federal *Teenage Pregnancy Prevention* initiative "for the purpose of replicating evidence-based programs that have been proven through rigorous evaluation to reduce teenage pregnancy, behavioral risks underlying teenage pregnancy, or other associated risk factors" (p. 3). Twenty-eight prevention programs have been certified as meeting these criteria, and have been federally endorsed and recommended for funding and widespread distribution. However, when the research on these programs is scrutinized according to recommended standards for program effectiveness<sup>a</sup> the evidence does not support the claim that they are "proven to be effective through rigorous evaluation" (p.4).

# I. <u>Most of the TPP programs have *not* been proven to be effective; there is inadequate evidence of program effectiveness</u>

The *TPP* Funding Opportunity Announcement (FOA) states that the 28 programs it recommends are "evidence-based programs that have been proven to be effective through rigorous evaluation" (p. 4, emphasis added). While an evidence-based" approach is laudable, a crucial issue is the quality of that evidence. The evidence of program effectiveness should meet two criteria: 1) the scientific methods used to verify a program's results must be of adequate quality to justify its designation as an "effective" program, and 2) the kind of results produced by the program must also be of adequate quality to justify the label of "effective." The list of 28 TPP programs contains major problems with both of these criteria. In many cases, the science behind the evidence does not meet recommended standards for effective programs or the results produced by the programs are not adequate indicators of effectiveness according to recommended standards. Because of this, there are many programs on the TPP list that do not warrant federal endorsement and funding, or widespread dissemination.

There are four problems with the evidence for the *TTP* programs. The first two are problems of inadequate *scientific methods*; the second two are problems of inadequate *program results*:

**1.** Evidence from just one study is inadequate scientific proof of program effectiveness. Yet for most of the TPP programs the evidence of effectiveness comes from only one study.

<u>Recommended Standard of Effectiveness</u>: *SPR's* Standards of Evidence requires at least two rigorous studies as evidence of a program's readiness for dissemination. *Blueprints for Violence Prevention* requires the same—an initial evaluation study and "at least one replication [study] with demonstrated effects"—in order to become a *Blueprints* model program. Their website states, "[Study] replication

-

<sup>&</sup>lt;sup>a</sup>The development of standards for what constitutes sufficient scientific evidence of program effectiveness has been undertaken by prominent national entities like *The Society for Prevention Research (SPR)*, *The What Works Clearinghouse*, *The National Registry of Evidence-based Programs and Practices*, *The Coalition for Evidence-based Policy*, and *Blueprints for Violence Prevention*. <sup>6</sup> A consensus has been proposed by *SPR's* Standards of Evidence Committee in their publication, "Standards of Evidence: Criteria for Efficacy, Effectiveness, and Dissemination." <sup>7</sup> These standards include criteria for both the quality of the *scientific methods* used to produce evidence of effectiveness and the quality of the program's *results*. These standards can be applied to programs designed to prevent teenage pregnancy and STDs, as well as to other programs designed to prevent the broader spectrum of social problems.

is an important element in establishing program effectiveness and understanding what works....Some programs are successful because of unique characteristics in the original site that may be difficult to duplicate in another site."

<u>TPP Evidence</u>: For at least 19 of the 28 TPP programs (68%), the "rigorous proof" of program effectiveness given in the *TPP Intervention Implementation Report (TPP-IIR)*<sup>2</sup> consists of the evidence *from only one study*; that is, there is no additional replication study named showing positive effects. Unfortunately, most of those who receive funding to implement these programs will not be required to conduct an evaluation study of the program to provide a replication of positive results because the programs are assumed to be effective.<sup>1</sup>

2. <u>No independent evaluator</u>. Evidence from an independent evaluator is recommended in order for a program to merit dissemination. Yet for nearly all of the TPP programs, the only evidence of effectiveness was from studies conducted by the program's authors or marketers.

Recommended Standard of Effectiveness: The *SPR*'s Standards of Evidence Committee states that when "implementers have a stake in the outcome... measuring the impacts of a preventive intervention requires methods and data collectors independent of the interveners" and that for a program to qualify "for broad dissemination, it is desirable...to have some effectiveness trials that do not involve the developer" (pp. 156 and 162). In other words, it is important that there is evidence of a program's effectiveness that has been produced by an independent evaluator—someone other than the program developer or implementer.

<u>TPP</u> Evidence: For 26 out of the 28 TPP programs (93%), the author of the evaluation study was also the program developer and/or marketer.<sup>2</sup> Only one of these programs had a replication study by an independent, third party evaluator.<sup>10</sup>

**3.** Evidence of Program Failure Ignored. Programs that attempt to reduce important sexual risk behaviors and do not succeed should not be called "proven to be effective." Yet nearly one-half (43%) of the "comprehensive" type of TPP programs actually demonstrated failure to produce positive effects on such outcomes.

<u>Recommended Standard of Effectiveness</u>: The SPR's Standards of Evidence Committee states that for important program outcomes, the "results must be reported for every measured outcome, regardless of whether they are positive, non-significant or negative... *not merely those showing positive effects*" and that "reporting only statistically significant results is misleading." Furthermore, "Efficacy can be claimed only... with a consistent pattern of statistically significant positive effects." And, "For an efficacy claim, there must be no serious negative (iatrogenic) effects on important outcomes." (p. 161, emphasis added).

### *TPP* Evidence:

a. Two replication studies of the *TPP*'s *CAS Carrera* program model found no positive effects and some statistically significant *negative effects*: one found an increase in teen pregnancy for program participants, and the other reported an increase in both sexual initiation and pregnancy for girls in the program. These negative results were not disclosed in the *TPP Intervention Implementation Report (TPP-IIR)*. This report also did not mention that the sole study it cites as proof of the CAS-Carrera program's effectiveness found that although it decreased initiation and pregnancy for girls, the program failed to increase condom use for

boys or girls and had no effects on sexual risk behavior for boys, after three years of program participation. The effects on girls were "at the 3-year follow-up (from program start)," which *suggests* a long-lasting effect, but they were actually measured *at the end of a 3-year program*, providing no evidence that they lasted beyond the program's end.

- b. The *TPP-IIR* did not report the failure of many *comprehensive* programs on the *TPP* list—programs whose goals are to improve both rates of teen abstinence *and* condom use—to produce improvement on these major outcomes. Instead, the *TPP-IIR* often cited improvement on minor outcomes as evidence of these programs' effectiveness.
  - 1. <u>Promoting Health Among Teens/Comprehensive Intervention</u>—The program's main goals were to increase teen abstinence and consistent condom use. Its one evaluation study did not show significant improvement on *either* of these primary outcomes, but it reduced "number of partners in the past 3 months," a secondary outcome. <sup>14</sup> This was reported in the *TPP-IIR* as proof of the program's effectiveness, while its lack of effectiveness at improving the main, and more protective outcomes of abstinence and consistent condom use, was not disclosed. <sup>2</sup>
  - 2. <u>Safer Sex</u>—The program was designed "to reduce the incidence of STDs and improve condom use among high-risk female adolescents." However, the *TPP-IIR* did not report the program's failure to achieve either of these goals (even when condom use was measured 3 different ways). The program reduced "number of partners" 6 months after the program *but not after 12 months* (again, not reported), yet this lesser 6-month effect was cited as proof of the program's effectiveness.<sup>2,3</sup>
  - 3. <u>Making Proud Choices</u>—The program's main goals were to "promote skills supportive of abstinence and safer-sex practices," including consistent condom use (CCU).<sup>2</sup> Its one evaluation study did not show significant improvement in teen abstinence for any time period, and showed CCU had increased at 3 months after the program but not at 6 or 12 months.<sup>15</sup> The *TPP Intervention Implementation Report* did not report these failures. A reduction in the outcome of "unprotected sex" for a *subgroup* of the population 3 months after the program *but not 6 or 12 months after the program* (not reported) was cited as proof of program effectiveness, while the failure to achieve sustained effects on two of the program's primary behavioral outcomes was ignored.<sup>2</sup>
  - 4. <u>Draw the Line / Respect the Line</u>—The main goals were to reduce the number of teens who initiate sex and to increase condom use by the sexually active. After receiving the program in 3 successive years (a large "dose"), condom use by sexually active teens did not increase (which was not reported in the *TPP-IIR*<sup>2</sup>) and sexual initiation was reduced only for boys, not girls. Yet this curriculum made the *TPP* list of programs that "have been proven to be effective."
  - 5. <u>All4You</u>—The *TPP-IIR* did not report that the program failed to increase rates of teen abstinence or contraceptive use, and that the increase in condom use and decrease in frequency of sex that was measured 6 months after the program had disappeared 12 months after the program.<sup>2,17</sup> These short-term effects were reported as proof of program effectiveness.
  - 6. <u>Aban Aya</u>—Participants received 16 to 21 lessons per year in school classrooms, grades 5 through 8—a very large program dose. The classroom-only version of the program had no significant positive effects, and the classroom-plus-community component reduced frequency of sex for boys but *had no significant effects on the girls in the program*. These failures were not reported in the *TPP* documentation. Furthermore, the effect on boys was stated as "at three-year follow-up (from program start)," which *suggests* a long-term sustained effect, when it was actually measured at the end of a 3-year program, at most 8 months after the end of this long-running program, providing no evidence of a long-term sustained impact.
- c. <u>In total</u>, 43% (11/25) of the "comprehensive" programs—those that attempted to improve rates of teen abstinence <u>and</u> condom/contraceptive use—demonstrated a failure to find any effect on one of these protective behaviors (either failed to increase teen condom/contraceptive use or failed to increase teen abstinence or both). Six of the 7 *TPP* programs that measured pregnancy as an outcome did not show a sustained effect, nor did one-third (2/6) of the programs measuring impact on STDs.
- d. These failures of *TPP* programs to find long-term impact on major protective outcomes were not reported in the *TPP Intervention Implementation Report*, apparently not considered information that policy-makers should know.

- **4.** <u>Lack of Evidence of Program Success.</u> For about one-half (46%) of the TPP programs, the positive results they did produce did not meet recommended standards for program effectiveness, e.g., only short-term effects, effects on less protective outcomes, only subgroup effects, or non-generalizable effects.
  - A. Lack of evidence for the most protective outcomes: Abstinence, consistent condom use, STDs, pregnancy.

Recommended Standard of Effectiveness: Regarding abstinence, the U.S. Department of Health and Human Services has said, "The protective behaviors of [most] interest are completely abstaining from sexual intercourse during adolescence (primary abstinence), and reverting to abstinence for long periods of time after having had intercourse in the past (secondary abstinence)." As for condom use, according to the CDC, "To achieve the maximum protective effect, condoms must be used both consistently and correctly. Inconsistent use can lead to STD acquisition because transmission can occur with a single act of intercourse with an infected partner." Some studies have also found that non-consistent condom use has provided inadequate STD protection or resulted in higher rates of STDs. Consistent condom use means use every time sexual intercourse occurs.

### **TPP Evidence:**

- 1. Only 8 of the 28 programs (29%) showed a one-year increase in rates of teen abstinence.<sup>2</sup>
- 2. Only one of the *TPP* programs demonstrated a reduction in teen pregnancy lasting one year.<sup>2</sup>
- 3. Only 4 programs demonstrated a decrease in teen STD rates for at least one year.
- 4. Only 2 of the *TPP* programs demonstrated the ability to produce a long-term increase (i.e., lasting at least one year after the program) in rates of teen *consistent condom use*. Neither of these programs occurred in a school classroom. Many *TPP* programs did not measure this outcome.
- 5. Only 3 of the *TPP* programs demonstrated the ability to increase teen rates of *consistent condom use* for any time period.

(Note: Only 11 (39%) of the *TPP* programs demonstrated a one-year increase in teen condom use as measured by frequency, consistent use, or use at last intercourse. <sup>2</sup>)

### B. Lack of Long-term Effects

Recommended Standard of Effectiveness: SPR's Standards of Evidence Committee states that "there must be a report of significant effects for at least one long-term follow-up at an appropriate interval beyond the end of the intervention" (p. 161). According to Blueprints for Violence Prevention, "...it is also important to demonstrate that these program effects endure beyond treatment... Designation as a Blueprints program requires a sustained effect at least one year beyond treatment." The TPP Funding Announcement designates a short-term outcome as one that lasts up to 6 months and a long-term outcome as one that is sustained for at least one year after the program (p.40). In the Indian Indian

### *TPP* Evidence:

1. Only 11 of the 28 TPP programs (39%) demonstrated a long-term improvement (i.e., lasting at least one-year after the program) for the targeted teen population on at least one of four important protective outcomes—abstinence, consistent condom use, pregnancy, or STDs.<sup>b</sup>

<sup>&</sup>lt;sup>b</sup> It should be noted that not every *TPP* program measured each of these outcomes, or measured program effects for a one-year time interval, so it is not known whether such effects would have been achieved if measured. Nonetheless, the *TPP* claim is that these 28 programs are "evidence-based." However, the *lack* of documented long-term effects for the target population on these important outcomes constitutes a serious *lack of evidence* of program effectiveness which contradicts this claim.

- 2. Only 3 of the 28 programs showed a long-term effect for the target population on at least one of these four protective outcomes *within a school classroom setting/population*.<sup>2</sup>
- 3. Only 12 of the 25 (48%) *comprehensive-type* programs on the *TPP* list demonstrated long-term improvement for the intended population on at least one of these four protective outcomes (teen abstinence, condom use, pregnancy, or STDs).<sup>2</sup>
- 4. Nearly one-half of the *TPP* programs (43%) did not show *any* positive long-term effects for the intended population of teens.<sup>2</sup>
- C. Non-generalizable effects: Effects found only for subgroups or atypical populations/settings.

# Recommended Standard of Effectiveness:

According to *SPR*, the fourth requirement for a claim of efficacy is "Generalizability of Findings" (p. 159). This is reflected in two concerns:

- 1. Effects should be broad-based, not limited to one subgroup of the study population. It is desirable that a prevention program demonstrate efficacy *across* the subgroups within the sample population, such as, "gender, ethnicity/race, risk levels." It is "possible that strong positive effects for one subgroup are accompanied by negative effects for another subgroup" (p. 159).
- 2. Effectiveness should not be assumed beyond the tested population and setting. "It needs to be clear how well the [study] sample does or does not represent the intended population....An intervention shown to be efficacious can claim to be so only for groups similar to the sample on which it was tested" (p. 159).

### TPP Evidence:

- 1. For one-fourth of the *TPP* programs (7 out of 28), a positive effect was demonstrated only for a subgroup of the intended/target population.<sup>2</sup>
- 2. Many programs were tested only within a very specific or unique population and/or setting, thus, there is a lack of evidence for generalizability beyond that population/ setting, calling into question the program's readiness for widespread national distribution, especially to adolescents in school classroom settings.
  - a. Only 3 of the 28 *TPP* programs demonstrated a long-term protective impact on the target population *within a school classroom setting and population.*<sup>2</sup>
  - b. Nineteen of the 28 programs (68%) were designed for and tested only on inner-city minority youth.<sup>2</sup> Their efficacy can only be assumed for similar populations.
  - c. Seven of the 28 were tested only within unique populations or settings: a juvenile detention facility (2), a residential drug treatment center (1), an alternative high school for troubled teens (1), a low-income housing project (1), children of HIV-infected parents (1), and a Marine Corps population in basic training (1). Without a replication study in a different setting/population, each of these programs can only be assumed to be effective for the same unique setting/population.
  - d. The *TPP Intervention Implementation Report* actually recommends that 9 of the 28 programs be used in populations or settings different from those for which they were tested, i.e., where there is not evidence of their effectiveness.<sup>2</sup>

### **Summary of TPP Evidence Problems**

There is a growing consensus in the field of prevention research that programs designated as effective should be those that have:

- a. demonstrated long-term effects (lasting at least one year after the program)
- **b.** for the intended population (not just a subgroup of the population)
- c. on important outcomes, that are
- d. generalizable to other settings/populations, and
- e. documented by more than one evaluation study, where
- f. at least one of the studies was produced by an independent evaluator—not the programs' authors, marketers, or implementers.

### Most of the *TPP* programs have not met these standards of effectiveness. For example:

- For nearly all of the TPP programs, the claim that they have been "proven to be effective" is supported by only one study conducted by the program's author. In addition to this...
- Only 39% of TPP programs demonstrated a long-term improvement for the intended/targeted population on *at least one* of four important protective outcomes—abstinence, consistent condom use, pregnancy, or STDs.
- Only 3 of the 28 programs showed a long-term effect for the target population on at least one of these outcomes *within a school classroom setting and population*.
- Only 2 *TPP* programs demonstrated the ability to increase adolescents' rate of *consistent* condom use for at least one year. Neither was a school-based program.
- Only 32% of the "comprehensive" type TPP programs were generalizable beyond their unique setting/population.

In sum, this lack of credible evidence of lasting and generalizable effects on major protective outcomes constitutes a serious lack of evidence and contradicts the TPP claim that these programs have been "proven to be effective." Notwithstanding this lack of proof, these programs have been federally endorsed, awarded federal funding, and recommended for widespread distribution.

# II. The content of most TPP programs is problematic: It is often sexually explicit and there is little emphasis on abstinence

### 1. The majority of *TPP* programs teach teens how to apply and use condoms.

Eighteen of the 28 TPP programs teach condom use skills, usually including simulated condom application demonstrations and practice by students, which often occurs in a mixed-gender classroom. For at least 8 of the 28 programs, this condom instruction is intended for students as young as 11 or 12 years old.<sup>2</sup>

# 2. Some TPP programs teach teens to engage in "safe" alternative sexual behaviors.

Some of the *TPP* programs teach youth to participate in alternative types of sexual contact that will not put them at risk for pregnancy or STDs.<sup>2</sup> Some of the 8 *TPP* programs developed by the Jemmotts, many of which are intended for young teens 11 to 13 years old, contain such content. For example, the *Making A Difference* curriculum contains references to masturbation and sexual fantasies, in addition to role-plays suggested for 2 lesbian girls, 2 gay boys, and a lesbian girl with a

bisexual girl. For one activity (pp. 63–66),<sup>4</sup> the teacher is instructed to put up a poster entitled "How Do People Express Their Sexual Feelings?" It lists: oral sex, dancing, anal sex, talking, sexual intercourse, sexual fantasy, saying 'I like you,' hugging, kissing, holding hands, touching, grinding, massaging, masturbation, caressing, cuddling, and touching each other's genitals. The teacher is supposed to "Be sure students identify oral, anal, and vaginal intercourse as behaviors to avoid when practicing abstinence," but the curriculum then says, "All other behaviors may be good ways to express feelings to another person." This idea is also repeated in a later module of the *Making A Difference* curriculum (pp. 114–118),<sup>4</sup> where the teacher is instructed to say the following to youth who "abstained" in a game about STD transmission: "You may have done other sexually pleasurable things without having intercourse (e.g., masturbation, kissing, talking, massaging, having fantasies, etc.)." It should be noted that *Making A Difference* is classified as an "abstinence" curriculum.

### 3. Abstaining from sex is not a primary focus in the majority of TPP programs.

For 18 of the 28 *TPP*-approved programs, teaching teens to abstain from sex is not a primary focus of the curriculum. If mentioned as an option, or even the most protective option, it often is discussed as one of several legitimate alternatives instead of the desired standard of behavior; and the majority of the curriculum content is about condom negotiation, application, and use.<sup>2</sup>

# 4. Most parents would not agree with the content of many TPP programs.

- A. Most U.S. parents object to their children being taught explicit sexual behaviors in school. When parents of teens and pre-teens (ages 10 to 16) are made aware that some "comprehensive" sex education (CSE) curricula contain the above explicit content that demonstrates condom application and/or teaches "safe" sexual contact between teens, approximately 70% reject these programs.<sup>5</sup>
- B. Most U.S. parents want their child's sex education to place more emphasis on abstinence than condom use instruction and want abstinence taught as the desired choice, not one of several acceptable options.<sup>5</sup>
- 68% of parents reject CSE programs that spend most of the time teaching condom use and application and spend little time teaching abstinence.<sup>5</sup>
- 78% agree that "sex education classes in public schools should place more emphasis on promoting abstinence rather than on condom and other contraceptive use." 5
- 82% say that it is important that their child wait to have sex until marriage.<sup>5</sup> This does not appear to be taught in any of the 28 *TPP* prevention programs.<sup>2</sup>

### III. Summary of this Review

### 1. There is Inadequate Evidence of Effectiveness for Most TPP Programs

The *TPP*-FOA asserts that the 28 programs it has authorized for federal funding and widespread dissemination have been "proven through rigorous evaluation" to be effective. Yet the majority of these programs do not meet recommended standards for proof of effectiveness. For the large majority, the scientific evidence comes from only one study that has been conducted by the program's author(s). Close to one-half (43%) of the programs have not demonstrated any positive long-term effect on the intended population of youth. And nearly 2/3 (61%) have not demonstrated long-term improvement for the intended population on any of the most protective outcomes—teen abstinence, consistent condom use,

STDs, or pregnancy. In addition, very few *TPP* programs have shown effectiveness via delivery in a school classroom setting, which is where most youth in America receive sex education. Finally, the large majority of programs were designed for and tested only on specific types of youth or in unique settings, and should not be used more broadly without further evidence showing they can be generalized to other populations or settings.

### 2. The Content of Many TPP Programs is Problematic

Many of the *TPP*-approved programs include explicit sexual content such as demonstrations of condom application on anatomical models and/or recommendations of "safe" alternative sexual contact such as "massaging, masturbation, touching each other's genitals," often occurring in young mixed gender classrooms. Two-thirds of the programs do not emphasize abstinence as the appropriate and desired behavior for adolescents. This type of sex education content contradicts the wishes of the large majority of U.S. parents.

### IV. RECOMMENDATIONS

The *TPP* programs appear to be more "policy-based" than "evidence-based," with little evidence of effectiveness in schools. We recommend funding programs that (1) lack content objectionable to parents and that (2) have demonstrated long-term effects on the most protective behaviors (3) for a school-based population of teens (4) with evidence from studies by an independent evaluator.

### References

- 1. Office of Adolescent Health. (2010). Teenage Pregnancy Prevention: Replication of Evidence-based Programs (Tier 1) Funding Opportunity Announcement and Application Instructions. Office of Public Health & Science, U.S. Department of Health & Human Services.
- 2. Note: These conclusions are based upon the information given in the OAH *Teenage Pregnancy Prevention* documentation, the studies cited therein, and/or the information about these interventions on the programs' websites. See: Office of Adolescent Health. (2010). *Teenage Pregnancy Prevention: Programs for Replication—Intervention Implementation Reports*. Office of Public Health and Science, U.S. Department of Health and Human Services. Available at: <a href="http://www.hhs.gov/ophs/oah/prevention/research/programs/index.html">http://www.hhs.gov/ophs/oah/prevention/research/programs/index.html</a>.
- 3. Shrier L.A., Ancheta R., Goodman E., Chiou V.M., Lyden M.R., & Emans S.J. (2001). Randomized controlled trial of a safer sex intervention for high-risk adolescent girls. *Archives of Pediatrics & Adolescent Medicine*, 155(1), 73–9.
- 4. Jemmott LS, Jemmott JB III, McCaffree KA. (2005). *Making A Difference! An Abstinence Approach to HIV/STD and Teen Pregnancy Prevention, A Be Proud! Be Responsible! Curriculum, Second Edition*. New York: Select Media, Inc. Available at www.SelectMedia.org.
- 5. Zogby International. (2007). Nationwide Survey of Parents of Children Age 10–16. Conducted 3/27/07–4/5/07.
- 6. Each has their own website recommending criteria for effective programs.
- 7. Society for Prevention Research. (2004). *Standards of Evidence: Criteria for Efficacy, Effectiveness, and Dissemination*. Falls Church, VA:author. Available at http://www.preventionresearch.org)nresearch.org.
- 8. "Blueprints Programs" at http://www.colorado.edu/cspv/blueprints/criteria.html.
- 9. Flay B, Biglan A, Boruch R, Castro FG, Gottfredson D, et al.(2005). Standards of Evidence: Criteria for Efficacy, Effectiveness and Dissemination. *Prevention Science*, 6(3):151–175.
- 10. Kirby, D., Barth, R., Leland, N., & Fetro, J. (1991). Reducing the Risk: Impact of a new curriculum on sexual risk-taking. *Family Planning Perspectives*, 23(6), 253-263. Replication studies: Hubbard, B. M., Giese, M. L., & Rainey, J. (1998). A replication of Reducing the Risk, a theory-based sexuality curriculum for adolescents. *Journal of School Health*, 68(6), 243-247; Zimmerman, R., Cupp, P., Donohew, L., Sionéan, C., Feist-Price, S., & Helme, D. (2008). Effects of a school-based, theory driven HIV and pregnancy prevention curriculum. *Perspectives on Sexual and Reproductive Health*, 40(1):42-51.
- 11. Kirby D, Rhodes T, Campe S. (2005, unpublished). The Implementation and impact of a multi-component youth program to prevent teen pregnancy modeled after the Children's Aid Society-Carrera Program. In Laris BA & Kirby D. (2007). One-page Summaries of the Evaluations Referenced in *Emerging Answers 2007* (p. 56). Washington DC: The National Campaign to Prevent Teen and Unplanned Pregnancy.

- 12. Wiggins M, Bonell C, Sawtell M, Austerberry H, Burchett H, et al. (2009). Health outcomes of youth development programme in England: prospective matched comparison study *BMJ* 2009;339;b2534.
- 13. Philliber, S., Williams Kaye, J., Herrling, S., & 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(5), 244–251.
- 14. Jemmott III JB, Jemmott LS, Fong GT. (2010). Efficacy of an abstinence-only intervention over 24 months: a randomized controlled trial with young adolescents. *Arch Pediatr Adolesc Med.* 2010;164(2):152–159.
- 15. Jemmott, J.B., Jemmott, L.S., & Fong, G.T. (1998). Abstinence and safer sex HIV risk-reduction interventions for African American adolescents: A randomized controlled trial. *Journal of the American Medical Association*, 279, 1529–1536. <u>Note</u>: The study reported an increase in frequency of teen condom use at 12 months, but this is over-shadowed by the failure to produce a sustained increase in *consistent condom use*, the behavior that has been proven to be protective.
- 16. Coyle, K. K., Kirby, D. B., Marin, B. V., Gomez, C. A., & Gregorich, S. E. (2004). Draw the Line/Respect the Line: A randomized trial of a middle school intervention to reduce sexual risk behaviors. *American Journal of Public Health*, *94*, 843–851.
- 17. Coyle, K. K., Kirby, D. B., Robin, L. E., Banspach, S. W., Baumler, E., & Glassman, J. R. (2006). All4You! A randomized trial of an HIV, other STDs, and pregnancy prevention intervention for alternative school students. *AIDS Education and Prevention*, 18(3), 187–203.
- 18. Flay, B. R., Graumlich, S., Segawa, E., Burns, J. L., & Holliday, M. Y. (2004). Effects of 2 prevention programs on high-risk behaviors among African American youth: A randomized trial. *Archives of Pediatrics & Adolescent Medicine*, *158*(4), 377–384.

  19. U.S. Department of Health and Human Services. (2000). *Healthy People 2010*. 2<sup>nd</sup> ed. Understanding and Improving Health and Objectives for Improving Health. 2 vols. Washington, DC: U.S. Government Printing Office, November 2000; and Centers for Disease Control and Prevention. (2010). *Male Latex Condoms and Sexually Transmitted Diseases –Condoms & STDs: Fact Sheet for Public Health Personnel*. National Center for HIV, STD, and TB Prevention. Atlanta, GA: U.S. Department of Health and Human Services (paragraph 1). (Last updated, February 8, 2010.) Retrieved July 14, 2010 from <a href="www.cdc.gov/nchstp/od/latex.htm">www.cdc.gov/nchstp/od/latex.htm</a>.

  20. A study in Uganda (*N*=17,264) published in the journal *AIDS* found, "Consistent condom use significantly reduced HIV incidence, syphilis, and gonorrhea/Chlamydia...Irregular condom use was not protective against HIV or STD and was associated with increased gonorrhea/Chlamydia risk." See page 2171, in Ahmed S, Lutalo T, Wawer M et al. (2001). HIV incidence and sexually transmitted disease prevalence associated with condom use: a population study in Rakai, Uganda. *AIDS*; *15*(16):2171–9. A Denver study (*N*=26,291) reported that "Among the total population, rates of STD were higher among inconsistent users than nonusers...However, STD rates were significantly lower among consistent than inconsistent users." See p. 528, in Shlay JC, McCung MW, Patnaik JL et al. (2004). Comparison of sexually transmitted disease prevalence by reported level of condom use among patients attending an urban sexually transmitted disease clinic. *Sex Transm Dis*; *31*(3):154–60.

The Institute for Research and Evaluation (IRE) is a nonprofit research and development organization that has gained national recognition over the past 20 years for its work evaluating sex education programs, including abstinence education. IRE has conducted program evaluations for federal Title V, CBAE, and Title XX projects in 30 states, and has evaluated sex education program in three foreign countries. The Institute has collected data from more than 500,000 teens, and conducted over one hundred evaluation studies of abstinence education. In addition, IRE has evaluated comprehensive sex education programs in two states, has recently completed a nationwide evaluation of marriage enrichment (divorce prevention) programs, and has developed and evaluated character education curricula for elementary school children. IRE staff members have published articles in professional journals and have spoken at numerous professional conferences and workshops. Dr. Stan E. Weed, Founder and Director of IRE, has served as a national consultant for federal Title XX and CBAE projects, and was a charter member of the National Campaign to Prevent Teen & Unplanned Pregnancy. He has been invited to provide expert testimony about sex education to state legislative bodies, the U.S. Senate, the U.S. House of Representatives (most recently in April, 2008), and the White House (June, 2009).

For more information, go to www.instituteresearch.com or email Dr. Weed at weedstan@aol.com.

###