

## **Updated Findings from the HHS Teen Pregnancy Prevention Evidence Review: January 2011 Through April 2013**

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Since 2009, the U.S. Department of Health and Human Services (HHS) has sponsored an ongoing systematic review of the teen pregnancy prevention research literature to help identify programs with evidence of effectiveness in reducing teen pregnancy, sexually transmitted infections (STIs), and associated sexual risk behaviors. Mathematica Policy Research and Child Trends conduct the Teen Pregnancy Prevention (TPP) Evidence Review, with support from the Office of the Assistant Secretary for Planning and Evaluation (ASPE), Office of Adolescent Health (OAH), and the Family and Youth Services Bureau (FYSB) within the Administration for Children and Families (ACF).

As of spring 2012, the review team had identified 31 programs meeting the review criteria for evidence of effectiveness. These criteria require programs to show evidence of a favorable, statistically significant program impact on at least one sexual behavior or reproductive health outcome of interest (sexual activity, contraceptive use, STIs, pregnancy, or birth). In addition, the supporting research studies must meet established criteria for the quality and execution of their research designs. To identify the 31 programs meeting these criteria, the review team identified and assessed about 200 studies released from 1989 through January 2011.<sup>1</sup>

The review team has updated the findings for this review to cover more recent research published or released from January 2011 to April 2013. As part of this update, the review team identified four new programs meeting the review criteria for evidence of effectiveness:

1. Health Improvement Program for Teens (HIP Teens)
2. Project IMAGE
3. STRIVE (Support to Reunite, Involve and Value Each Other)
4. Families Talking Together (FTT)

Taken together, these programs serve diverse target populations and reflect a range of programmatic approaches, from HIV and STI prevention to family-based interventions.

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<sup>1</sup> Goesling, B., Colman, S., Trenholm, C., Terzian, M., & Moore, K. (2014). Programs to reduce teen pregnancy, sexually transmitted infections, and associated sexual risk behaviors: A systematic review. *Journal of Adolescent Health, 54*(5), 499-507.

Additional details on the four programs and supporting research studies are provided later in this document.

The recent update to the review findings also sought to identify and assess any newly available evidence for previously reviewed programs. To date, most teen pregnancy prevention programs have been evaluated only once. However, as part of the review update, the review team identified two programs that now have more than one supporting research study available:

1. All4You!
2. It's Your Game...Keep It Real (IYG)

Additional details on these two programs and the newly available research studies are provided later in this document.

With these updates, the review team has now identified a total 35 programs meeting the review criteria for evidence of program effectiveness—31 programs from earlier rounds of the review and the 4 newly identified programs. In addition, the review team has now identified a total of 3 programs with more than one supporting research study available that shows evidence of favorable effects—one program from earlier rounds of the review (Be Proud! Be Responsible!) and the two newly identified programs (All4You! and IYG).

The remainder of this document provides a more detailed description of the procedures the review team used to update the review findings.

### **Literature Search and Study Screening**

In February 2013, the review team released a public call for studies requesting new research released from January 2011 through April 2013. The team also identified studies through a comprehensive literature search, which involved searching the websites of relevant federal agencies and research and policy organizations, conducting keyword searches of electronic databases, and hand-searching relevant journals and professional conference proceedings.

The call for studies and literature search identified 97 new studies. Of these, 64 were screened out because they did not meet the review eligibility criteria. The remaining 33 studies met the review eligibility criteria and were assessed for study quality.

### **Assessment of Individual Studies**

Teams of two trained reviewers assessed all 33 studies that met the review eligibility criteria for the quality and execution of their research designs. As a part of this assessment, the reviewers assigned each study a final quality rating of *high*, *moderate*, or *low* according to the risk of bias

in the study's impact estimates. The review protocol describes these ratings in greater detail.<sup>2</sup> Of the 33 studies assessed, 11 (33 percent) met the review criteria for a *high* quality rating, 6 studies (18 percent) met the criteria for a *moderate* quality rating, and 16 (48 percent) were assigned a *low* rating.

### Programs with Evidence of Effectiveness

For the 17 studies that passed the quality assessment with a rating of either *high* or *moderate* (11 and 6 studies, respectively), the review team extracted information on the program tested, evaluation setting, study sample, and research design. The review team also extracted detailed information on the program impact estimates. On the basis of this information, the review team identified programs with evidence of effectiveness, defined as having a statistically significant favorable impact (and no adverse effects) on at least one of the following outcome measures: sexual activity, contraceptive use or consistency of use, STIs, or pregnancy or birth.

A total of four new programs met this criterion for evidence of effectiveness:

1. ***Families Talking Together (FTT)***. FTT is a parent-based program intended to reduce sexual risk behavior in early adolescents by intervening with the adolescent's mother. In a randomized controlled trial involving 264 African American or Latino adolescents and their mothers, researchers found that adolescents whose mothers participated in the program were significantly less likely to report having had vaginal intercourse and reported significantly lower frequency of sexual intercourse in the past 30 days.<sup>3</sup> The study found no statistically significant program impacts on the prevalence of oral sex. The study met the review criteria for a *high* quality rating.
2. ***HIP Teens***. HIP Teens is a four-session sexual risk-reduction intervention for low-income, urban, sexually active adolescent females. In a randomized controlled trial involving 639 predominately African American female adolescents in an urban area of upstate New York, researchers found that adolescents participating in the program were significantly less likely to report having had sexual intercourse and unprotected sex in the past three months. Adolescents participating in the program also reported significantly lower frequency of sexual intercourse and fewer sexual partners.<sup>4</sup> The study met the review criteria for a *high* quality rating.

<sup>2</sup> Mathematica Policy Research. Identifying programs that impact teen pregnancy, sexually transmitted infections, and associated sexual risk behaviors: Review protocol, version 3.0. Princeton, NJ: Mathematica Policy Research. Available at: <http://tppevidencereview.aspe.hhs.gov>.

<sup>3</sup> Guilamo-Ramos, V., Bouris, A., Jaccard, J., Gonzalez, B., McCoy, W., & Aranda, D. (2011). A parent-based intervention to reduce sexual risk behavior in early adolescence: Building alliances between physicians, social workers, and parents. *Journal of Adolescent Health, 48*(2), 159-163.

<sup>4</sup> Morrison-Beedy, D., Jones, S. H., Xia, Y., Tu, X., Crean, H. F., & Carey, M. P. (2013). Reducing sexual risk behavior in adolescent girls: Results from a randomized controlled trial. *Journal of Adolescent Health, 52*(3), 314-321.

3. **Project IMAGE.** Project IMAGE is a cognitive behavioral intervention intended to reduce subsequent STI infection among ethnic minority adolescent women with a history of sexual or physical abuse and STI infection. In a randomized controlled trial involving 409 African or Mexican American female adolescents ages 14 to 18, researchers found that adolescents participating in the program were significantly less likely to have had a new STI infection.<sup>5</sup> The study met the review criteria for a *moderate* quality rating.
4. **STRIVE.** STRIVE is a five-session family-based intervention intended to reduce sexual risk behaviors, substance use, and delinquency among youth who have recently run away from home. In a randomized controlled trial involving 151 newly homeless youth in Los Angeles and San Bernardino counties, California, researchers found that adolescents participating in the program reported significantly fewer sexual partners than nonparticipants.<sup>6</sup> The study found no statistically significant program impacts on rates of recent sexual activity, the frequency of sexual activity, or rates of unprotected sex. The study met the review criteria for a *high* quality rating.

Through this update to the review, the review team also identified additional evidence of program effectiveness for two programs highlighted in previous rounds of the review:

1. **All4You!** All4You! is a skills-based HIV, STI, and pregnancy prevention program for alternative high school students. The efficacy of the program was first established in a 2006 study involving 998 students in alternative high schools in four large urban counties in Northern California.<sup>7</sup> In a more recent study, researchers conducted a multi-armed randomized controlled trial of All4You! involving 652 students from 11 continuation high schools in Northern California. The study found that students participating in a curriculum-only version of the program reported significantly lower rates of sex without a condom in the past three months. The study found no statistically significant impacts on this measure for two other treatment groups, and no statistically significant impacts on the number of sexual partners, frequency of sexual intercourse, or sexual initiation for any of the groups. The study met the review criteria for a *moderate* quality rating.

<sup>5</sup> Champion, J. D., & Collins, J. L. (2012). Comparison of a theory-based (AIDS risk reduction model) cognitive behavioral intervention versus enhanced counseling for abused ethnic minority adolescent women on infection with sexually transmitted infection: Results of a randomized controlled trial. *International Journal of Nursing Studies*, 49(2), 138-150.

<sup>6</sup> Milburn, N. G., Iribarren, F. J., Rice, E., Lightfoot, M., Solorio, R., Rotheram-Borus, M., Desmond, K., Lee, A., Alexander, K., Maresca, K., Eastmen, K., Arnold, E. M., & Duan, N. (2012). A family intervention to reduce sexual risk behavior, substance use, and delinquency among newly homeless youth. *Journal of Adolescent Health*, 50(4), 358-364.

<sup>7</sup> 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.

2. ***It's Your Game...Keep It Real (IYG)***. IYG is a 24-lesson school-based program for middle school students. The efficacy of the program was first established in a 2010 study involving 3,007 7th-grade students in Southeast Texas.<sup>8</sup> In a more recent study, researchers conducted a cluster randomized trial involving 1,258 students from 15 urban middle schools in a large south-central U.S. school district. The study findings for the 9th-grade follow-up show that students participating in the standard risk reduction version of the intervention were significantly less likely to initiate sexual activity or report having unprotected sex, and reported significantly lower frequency of vaginal and anal sex in the past three months. The study found no statistically significant program impacts on the number of sexual partners. The study met the review criteria for a *moderate* quality rating.

More detailed information on these programs and the supporting research evidence is available on the project website.<sup>9</sup> The website also provides more detailed information on the review process and standards, and a complete listing all studies included in this update to the review.

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<sup>8</sup> Tortolero, S. R., Markham, C. M., Fleschler Peskin, M., Shegog, R., Addy, R. C., Escobar-Chavez, S. L., & Baumler, E. (2010). It's Your Game: Keep It Real: Delaying sexual behavior with an effective middle school program. *Journal of Adolescent Health, 46*(2), 169–179.

<sup>9</sup> <http://tppevidencereview.aspe.hhs.gov>