

Updated Findings from the HHS Teen Pregnancy Prevention Evidence Review: April 2013 Through July 2014

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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. The HHS Teen Pregnancy Prevention (TPP) Evidence Review was created in response to fiscal year (FY) 2010 Consolidated Appropriations Act legislation indicating that funded teen pregnancy prevention programs must have been “proven effective through rigorous evaluation to reduce teenage pregnancy, behavioral risk factors underlying teenage pregnancy, or other associated risk factors.” Mathematica Policy Research and Child Trends conduct the TPP Evidence Review, which is sponsored by the Office of the Assistant Secretary for Planning and Evaluation (ASPE), the Office of Adolescent Health (OAH) within the Office of the Assistant Secretary for Health, and the Family and Youth Services Bureau (FYSB) within the Administration for Children and Families (ACF).

As of summer 2014, the review team, which is comprised of trained staff from Mathematica and Child Trends, had identified 35 programs meeting the review criteria for evidence of effectiveness. These criteria require programs to show evidence of at least one 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. The review team follows a pre-specified set of criteria in order to assess study design, attrition, baseline equivalence, reassignment of sample members, and confounding factors (see Table 1). To identify the 35 programs meeting these criteria, the review team identified and assessed over 200 studies released from 1989 through April 2013.

The review team has recently updated the findings for this review to cover more recent research published or released from April 2013 to July 2014. As part of this update, the review team identified two new programs meeting the review criteria for evidence of effectiveness, bringing the total number of programs meeting the review criteria for evidence of program effectiveness to 37—the 35 programs from earlier rounds of the review and the two newly identified programs. As discussed later in this brief, the review team also sought to identify and assess any newly available evidence for programs highlighted in previous rounds of the review.

Newly Identified Programs

Two new programs met the review criteria for evidence of effectiveness:

1. **Get Real.** Get Real is a school-based, comprehensive sex education program for middle and high school students. The Get Real middle school curriculum is a three-year program comprising a total of 27 lessons—9 lessons delivered in each of the 6th, 7th, and 8th grades. At each grade level, the program also provides eight family activities for students to complete at home with their parents or guardians. The Get Real high school curriculum is a one-year program comprising eight required and three optional lessons for 9th or 10th grade students. The Get Real middle school curriculum was evaluated in a cluster randomized controlled trial involving 2,453 students from 24 middle schools in the greater Boston area.¹ Researchers found that students in schools that delivered the program were significantly less likely to initiate sexual activity by the end of 8th grade. The study met the review criteria for a “moderate” quality rating. The Get Real high school curriculum was not part of the study. Get Real was developed by Planned Parenthood League of Massachusetts and is currently distributed by ETR (<http://www.etr.org/get-real/>).
2. **Prime Time.** Prime Time is a youth development program for adolescent females at high risk for teen pregnancy. The program involves a combination of one-on-one case management and group-based youth leadership activities delivered over an 18-month period. In a randomized controlled trial involving 253 sexually active adolescent females in Minneapolis and St. Paul, researchers found that adolescents participating in the intervention were significantly more likely to report having been sexually abstinent in the past six months.² The study met the review criteria for a “high” quality rating. The study authors also reported statistically significant program impacts on measures of condom and contraceptive use. However, these findings were not considered for the review because the sample was restricted on the basis of sexual activity at follow-up. As detailed in the review protocol, the review considers evidence for only the full analytic sample or subgroups defined by (1) gender or (2) sexual experience at baseline. Prime Time was developed by researchers from the University of Minnesota. The program is still under development and not currently available for broader dissemination.

New Evidence for Previously Reviewed Programs

The recent update to the review findings also sought to identify and assess any newly available evidence for programs highlighted in previous rounds of the review. To date, most teen pregnancy prevention programs have been evaluated only once. However, a growing number of

¹ Grossman, J.M., Tracy, A.J., Charmaraman, L., Ceder, I., & Erkut, S. (2014). Protective effects of middle school comprehensive sex education with family involvement. *Journal of School Health*, 84(11), 739-747.

² Sieving, R.E., McRee, A., Secor-Turner, M., Garwick, A.W., Bearinger, L.H., Beckman, K.J., McMorris, B.J., & Resnick, M.D. (2014). Prime Time: Long-term sexual health outcomes of a clinic-linked intervention. *Perspectives on Sexual and Reproductive Health*, 46(2), 91-100.

studies have sought to test how these programs perform when implemented on a broader scale, in different settings, or with different populations.³ As part of the update to the review findings, the review team identified and assessed newly available evidence for two programs highlighted in previous rounds of the review:

1. ***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.⁴ In a more recent study, researchers conducted a cluster randomized controlled 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.⁵ More recently released findings from the longer-term 10th-grade follow-up, however, show a mix of positive, negative, and null effects.⁶ The study met the review criteria for a “moderate” quality rating.
2. ***Reducing the Risk (RtR)***. RtR is a 16-lesson comprehensive sex education program for primarily high-school-aged students. The efficacy of the program was first established in a 1991 study involving 758 high-school students in northern California.⁷ In a more recent study, researchers conducted a multi-group randomized controlled trial testing both the original RtR program and an adapted version of the program (RtR+) that places greater emphasis on the bottom-line summary or “gist” of program messages.⁸ The study involved a racially and ethnically diverse sample of 734 high-school-aged students from southern Arizona, northern Texas, and central New York. The study met the review criteria for a “moderate” quality rating. The study findings show no statistically significant impact on sexual risk behaviors of the original RtR program, relative to a control group. The study findings for the adapted version of the program (RtR+) did not

³ Goesling, Brian. (forthcoming). Making Sense of Replication Studies: Guidance for the Field of Teen Pregnancy Prevention Research. Washington, DC: U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation.

⁴ 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.

⁵ Markham, C.M., Tortolero, S.R., Fleschler Peskin, M., Shegog, R., Thiel, M., Baumler, E.R., Addy, R.C., Escobar-Chaves, S.L., Reininger, B., & Robin, L. (2012). Sexual risk avoidance and sexual risk reduction interventions for middle school youth: A randomized controlled trial. *Journal of Adolescent Health, 50*, 279–288.

⁶ Markham, C.M., Peskin, M.F., Shegog, R., Baumler, E.R., Addy, R.C., Thiel, M., Escobar-Chaves, S.L., Robin, L., & Tortolero, S.R. (2014). Behavioral and psychosocial effects of two middle school sexual health education programs at tenth-grade follow up. *Journal of Adolescent Health, 54*, 151–159.

⁷ Kirby, D., Barth, R.P., Leland, N., & Fetro, J.V. (1991). Reducing the risk: Impact of a new curriculum on sexual risk-taking. *Family Planning Perspectives, 23*, 253-263.

⁸ Reyna, V.F., & Mills, B.A. (2014). Theoretically motivated interventions for reducing sexual risk taking in adolescence: A randomized controlled experiment applying fuzzy-trace theory. *Journal of Experimental Psychology, 143*, 1627-1648.

meet the review criteria because participants in this group differed from the control group in average age at baseline.

For these and other programs with more than one supporting research study, the review team is currently developing standards to support the comparison and synthesis of findings across studies. This type of cross-study synthesis is expected to become a growing focus of future updates to the review findings.

Review Procedures

This update to the review findings followed the same procedures and criteria used for the prior update to the review. In September 2014, the review team released a public call for studies requesting new research to consider. The team also identified studies through a comprehensive literature search, which entailed keyword searches of electronic databases and hand searches of relevant academic journals. The identified studies were then screened against pre-specified eligibility criteria.

For studies that meet the eligibility criteria, teams of trained reviewers assessed each study for the quality and execution of its research design. As a part of this assessment, the reviewers assigned each study a quality rating of high, moderate, or low according to the risk of bias in the study's impact findings. A more detailed description of these ratings is provided online at <http://tppevidencereview.aspe.hhs.gov/ReviewProtocol.aspx>.

For studies that passed this assessment with either a “moderate” or “high” quality rating, 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 priority outcome measured for either the full analytic sample or a subgroup defined by (1) gender or (2) sexual experience at baseline. The priority outcomes include: sexual activity, contraceptive use or consistency of use, STIs, or pregnancy or birth.

More detailed information on these programs and the supporting research evidence is available online at <http://tppevidencereview.aspe.hhs.gov>. The website also provides more detailed information on the review process and criteria, and a complete listing of all studies included in this update to the review.

Table 1. Summary of HHS Teen Pregnancy Prevention Evidence Review Study Quality Ratings

Criteria Category	High Study Rating	Moderate Study Rating	Low Study Rating
1. Study design	Random or functionally random assignment	Quasi-experimental design with a comparison group; random assignment design with high attrition or reassignment	Does not meet criteria for high or moderate quality rating
2. Attrition	What Works Clearinghouse standards for overall and differential attrition	No requirement	Does not meet criteria for high or moderate quality rating
3. Baseline equivalence	Must control for statistically significant baseline differences	Must establish baseline equivalence of research groups and control for baseline outcome measures	Does not meet criteria for high or moderate quality rating
4. Reassignment	Analysis must be based on original assignment to research groups	No requirement	Does not meet criteria for high or moderate quality rating
5. Confounding factors	Must have at least two subjects or groups in each research group and no systematic differences in data collection methods	Must have at least two subjects or groups in each research group and no systematic differences in data collection methods	Does not meet criteria for high or moderate quality rating