The Commonwealth of Massachusetts
Executive Office of Health and Human Services
Department of Public Health
250 Washington Street, Boston, MA 02108-4619

CHARLES D. BAKER
Governor

KARYN E. POLITO
Lieutenant Governor

MARYLOU SUDDERS
Secretary

MONICA BHAREL, MD, MPH
Commissioner

Tel: 617-624-6000
www.mass.gov/dph

March 10, 2016

Steven T. James
House Clerk
State House Room 145
Boston, MA 02133

William F. Welch
Senate Clerk
State House Room 335
Boston, MA 02133

Dear Mr. Clerk,

Pursuant to Line Item 4530-9000 of Chapter 46 of the Acts of 2015, please find enclosed a report from the Department of Public Health entitled *Teen Pregnancy Prevention Data Collection and Evaluation Pilot: Summary of Findings, FY14-FY15*.

Sincerely,

Monica Bharel, MD, MPH
Commissioner
Department of Public Health

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Charles D. Baker
Governor

Karyn Polito
Lieutenant Governor

Marylou Sudders
Secretary

Monica Bharel, MD, MPH
Commissioner

Teen Pregnancy Prevention Data Collection and Evaluation Pilot:

Summary of Findings FY14-FY15

March 2016

Massachusetts Department of Public Health

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Legislative Mandate

The following report is hereby issued pursuant to Line Item 4530-9000 of Section 2 of Chapter 46 of the Acts of 2015 as follows:

"that the department shall expend not less than $150,000 for a data collection and evaluation program; provided further, that the program shall conduct longitudinal tracking of program participants to examine the long-term impact of educational interventions on behaviors; provided further, that the department of elementary and secondary education shall provide local school district-level Youth Risk Behavior Survey data to the department of public health to target and evaluate intervention strategies; and provided further, that the department shall report to the house and senate committees on ways and means not later than March 1, 2016 on the progress of the program, obstacles encountered in retrieving data and ongoing findings and results"

Executive Summary

The Teen Pregnancy Prevention (TPP) Program, based in the Department of Public Health's (DPH) Office of Adolescent Health and Youth Development (OAHYD), funds 13 agencies in 15 communities across the state to teach evidence-based curricula on reproductive health and youth development. The target population for the program is youth aged 10-24 years at high risk for unintended pregnancy in high teen birth rate communities. The TPP program provides youth with the knowledge to make informed decisions about their sexual health and works toward increasing protective factors associated with lower teen pregnancy rates. With funding from line item 4530-9000, DPH's Bureau of Community Health and Prevention (BCHAP) developed the TPP Evaluation Pilot to determine if the TPP program is effective in improving longer-term reproductive health and youth development outcomes. DPH contracted with SurveyUSA to implement the evaluation. SurveyUSA administers surveys to youth who have consented to participate in the evaluation 3, 6, and 12 months following completion of an evidence-based sexual health curriculum.

As of February 3, 2016, a total of 788 youth enrolled in the study across fiscal years 2014-2016. Not all youth who consent to participate in the evaluation complete the follow-up surveys. Of 279 youth enrolled in FY14, only 22% (n=60) completed all three follow-up surveys. Challenges to enrolling and retaining youth in the evaluation include youth feeling nervous about giving personal contact information out and/or being difficult to contact at follow-up. Some TPP programs do not have the capacity to follow up with youth to ensure they return their consent paperwork on time. Compared with all youth enrolled in TPP, those enrolled in the longitudinal evaluation to date are more likely to be young women and over the age of 18.

Initial evaluation findings indicate that youth involved in TPP programming report high levels of protective factors. In the FY14 12-month follow-up survey, thirty-two percent (32%) of youth reported having completed high school or a GED program. Of those not having completed school, 100% were enrolled in school. At the 12 month follow-up, 95% of youth felt they were very or somewhat likely to achieve their future goals; 82% reported having an adult they could talk to about a problem; and 86% of youth in school reported getting mostly A's and B's. All of these are associated with decreased risk for unintended pregnancy.[1]

Intention to use a contraceptive method has been associated with decreased risk for teen pregnancy.[2] 96% of youth completing the FY14 12-month survey reported they would use a birth control method all or most of the time if sexually active. All protective factors and positive health attitudes and behaviors were maintained over the course of the 12-month follow-up period.

As more data is collected over the next few years, findings from this evaluation are anticipated to not only provide an opportunity to inform and improve TPP programming, but to also demonstrate the benefits of providing evidence-based sexual health and youth development curricula to high-risk youth. Continuing the longitudinal evaluation over the course of several years will yield a larger sample size and allow meaningful comparison between participants and students completing the statewide Youth Risk Behavior Survey (YRBS).

[1] 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
[2] Ibid

Introduction

The Teen Pregnancy Prevention (TPP) Program, based in the DPH Office of Adolescent Health and Youth Development (OAHYD), funds 13 agencies in 15 communities across the state to teach evidence-based curricula on reproductive health and youth development. TPP providers also offer one-time or drop-in health education and youth development programming that does not follow a curriculum.

The target population for the TPP program is youth aged 10-24 years in Massachusetts' communities with high teen birth rates. The program targets youth who are at high risk for unintended pregnancy including youth with disabilities, Hispanic youth, and lesbian, gay, bisexual, transgender and questioning (LGBTQ) youth, and other groups. Data from the MA Youth Risk Behavior Survey (YRBS) indicates that these populations are more likely to report behaviors that put them at risk for unintended pregnancy, including not using a birth control method; earlier initiation of sexual contact; and using drugs or alcohol before a sexual encounter.[3] The TPP program provides youth with the knowledge to make informed decisions about their sexual health, medically accurate reproductive health material, and information on resources for accessing health and family planning services in their communities. The program also aims to increase protective factors associated with lower rates of teen pregnancy; some of these factors include connection to a trusted adult, involvement in community activities, communication skills, self-efficacy or internal locus of control, perceived social support, and connection to school.[4]

In Fiscal Year 2013, the Legislature added funding to line item 4530-9000 for the purpose of conducting a longitudinal study on teen pregnancy prevention. With this funding, DPH's Bureau of Community Health and Prevention (BCHAP) developed the TPP Data Collection and Evaluation Pilot. The purpose of the TPP longitudinal evaluation is to determine if the TPP program is effective in improving longer-term reproductive health and youth development outcomes, including teen pregnancy, school enrollment and completion, sexual debut, and sexual risk behavior. The evaluation also examines risk and protective factors associated with teen pregnancy. MDPH contracted with SurveyUSA to implement the longitudinal evaluation. SurveyUSA administers surveys 3, 6, and 12 months following completion of an evidence-based TPP curriculum to those youth who completed the curriculum and consent to participate in the evaluation. Surveys are conducted via text message, email, or telephone. Participants are offered gift card incentives for completing follow-up surveys.

[3] MA Youth Risk Behavior Survey (YRBS), 2013

[4] 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

Enrollment

Youth in evidence-based TPP programs in communities with high teen birth rates are eligible to enroll in the longitudinal study. Participating communities include: Brockton, Chicopee, Everett, Fall River, Fitchburg, Holyoke, Lawrence, Lowell, Lynn, New Bedford, Southbridge, Springfield, and Worcester. Youth are informed about the study and must submit signed parental consent to enroll in longitudinal follow-up. Youth are able to withdraw consent and stop being followed at any time. SurveyUSA is responsible for managing consent paperwork and enrollment in the evaluation.

As of February 3, 2016, a total of 788 youth enrolled in the study across fiscal years 2014-2016. However, not all youth who consent to participate in the evaluation complete the follow-up surveys; in FY14 and FY15 combined, 36% completed the 3-month survey. In FY14, 35% of youth enrolled completed the 6-month survey and 30% completed the 12-month survey; twenty-two percent (22%) completed all three follow-up surveys. For FY15 and FY16, some survey periods remain open.

Table 1: TPP Longitudinal Study Enrollment as of 2/3/2016

	FY14	FY15	FY16	Total
Number of youth enrolled in TPP study	279	383	126[5]	788
Number of 3-month surveys completed	105	134	NA	239
Number of 6-month surveys completed	98	115[6]	NA	207
Number of 12-month surveys completed	83	39[7]	NA	116

[5] There was a delay in enrolling youth in the evaluation in FY16 due to the timing of the signing of the state budget. While it appears that fewer youth have enrolled to date, we expect enrollment to increase in Spring 2016.
[6] The six-month survey for FY15 has not closed; the number shown reflects surveys completed to date.
[7] The twelve-month survey for FY15 has not closed; the number shown reflects surveys completed to date.

Findings

Findings from surveys completed in FY14 are presented. A total of 60 youth completed all three FY14 follow-up surveys (inclusive of the 3, 6, and 12-month surveys). Changes in attitudes and behavior over the course of the follow-up period are described using this matched dataset of the 60 youth who completed all follow-up surveys in order to measure change on an individual level. All other data presented is from the final results of all respondents who completed the FY14 12-month follow-up survey. Data presented may differ depending on which dataset is used. Due to DPH Privacy and Confidentiality procedure 7, some small numbers are given in ranges instead of precise counts (e.g., less than 6) or are not included in this report.

Demographics

Select demographics among all youth completing the 12-month survey (n=83) are shown in Table A in the Addendum. The majority of youth completing the follow-up surveys were female (75%) and between 15-17 years of age (58%). This differs from youth participating in TPP programming overall; data from FY14 TPP pre-surveys indicates that 58% of program participants overall were female and 48% were between 15-17 years of age. Notably, the percent of youth aged 18+ years enrolled in the longitudinal study was 35% compared to only 5% of TPP program participants in total. This indicates that females and older youth (who do not need parental consent to participate in the evaluation) may be more likely to participate in the longitudinal evaluation.

Protective Factors

Research has shown that certain risk and protective factors are associated with risky sexual behaviors and teen pregnancy. The protective factors examined include connection to an adult, school engagement, participation in school or community activities, school performance, and self-reported self-efficacy or locus of internal control. All of the protective factors examined are associated with influencing youth decision-making and behavior involving sexual activity.[8]

Findings on protective factors among youth completing the 12-month follow-up TPP survey are presented in Table B. Thirty-two percent (32%) of youth reported having completed either high school or a GED program. Of those who had not completed school, 100% were enrolled in school. High percentages of youth reported high grades, connection to an adult, and engagement in community activities; all of these factors are associated with reduced risk for teen pregnancy. There were no significant changes in any protective factors among youth completing all three follow-up surveys over the course of the study.

Sexual Health Attitudes and Behaviors

Among youth completing all three follow-up surveys in FY14 (n=60), 45% reported ever having participated in sexual activity at the 3-month follow-up and 32% reported current sexual activity (within the past 3 months). Ninety-sex percent (96%) of youth completing the 12-month survey reported they would use a birth control method all or most of the time if sexually active; intention to use a

[8] 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

contraceptive method has been associated with decreased risk for teen pregnancy.[9] The majority of youth reporting vaginal intercourse reported use of a birth control method at last sex (data not shown due to DPH case level data release policy requiring suppression of counts of less than 6).

There were fewer than 6 pregnancies and births reported in total among all youth enrolled in the study over the 12-month period.[10] The data collected to date is not sufficient to calculate pregnancy or birth rates among the study population; these rates will be calculated as more data is collected.

[9] 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

[10] Counts of less than 6 are suppressed due to DPH case level data release policy.

Challenges

Toward the end of FY13, this line item sustained a cut and in FY14 the annualized funding for this program was eliminated in a 9C reduction, requiring the delay of further program activities until funding was restored in FY15. Completion of this multi-year, longitudinal study initially encountered implementation delays due to the sensitive nature of the survey questions and the vulnerability of the target populations; the Internal Review Board (IRB) approval process was protracted.

Identifying and ensuring the ongoing, voluntary participation of youth in the study remains a challenge given the topic area and length of the study, requiring multiple years to achieve a sufficient sample size to conduct a robust analysis. As described in the Enrollment section, fewer than 40% of youth enrolled in the study complete the initial 3-month follow-up survey, and this percentage declines with each additional survey. The percentage of youth completing all three follow-up surveys, which would allow for individual-level comparisons across the entire study period, was 22% in FY14. The relatively small number of youth completing the follow-up surveys will necessitate combining multiple years of data to determine if study results are statistically significant. Due to the low sample size for FY14, comparisons are not made to the statewide Youth Risk Behavior Survey (YRBS) in this report. OAHYD anticipates that combining the FY14 and FY15 datasets will result in a high enough sample size to detect statistically significant differences. A larger sample size will also allow for adjusting for variables and risk factors known to be associated with higher teen birth rates.

Methods used for matching the longitudinal follow-up surveys with pre-surveys that youth completed at baseline (prior to beginning TPP programming) initially proved problematic; fewer than 30 youth completing the initial 3-month survey were successfully matched with a pre-survey, making it difficult to accurately measure changes from the program baseline over the course of the study period. The methods for matching follow-up surveys with pre-surveys were changed in FY15 and FY16; OAHYD anticipates being able to match a higher number of participants on an individual level in these years.

Finally, community agencies charged with recruiting youth into the study have reported several challenges with recruitment. These challenges include youth feeling nervous about giving personal contact information out and/or not being interested in participating. Some TPP programs do not have the capacity to continuously follow up with youth to ensure they return their consent paperwork. In general, programs conducted in schools, rather than in community settings, have been more effective at enrolling a higher number of youth in the study.

Next Steps

Enrollment in the study will continue through the end of FY16 and follow-up surveys will continue until 12 months after the last enrollment date. As the FY15/FY16 surveys close, the data will be combined with data collected in FY14. Combining multiple years of data increases the sample size of the study and allows for more robust analysis, including comparing sexual risk-taking behavior among youth in the study to students with similar "risk profiles" who have taken the YRBS.

Conclusion

Findings from first complete year of data collected for the TPP longitudinal evaluation are promising – youth from high-risk communities who undergo TPP programming report high levels of school and community engagement; maintain high grades in school; and believe they can achieve future goals. The overwhelming majority of youth report they intend to use condoms or a birth control if they become sexually active; these percentages did not significantly change over the 12-month period.

Youth who enroll in the longitudinal evaluation appear to differ from those who receive TPP programming; they are more likely to be female and over the age of 18. Continuing the longitudinal evaluation over the course of several years will result in a larger sample size, which is necessary both for releasing data according to DPH data release policies and for comparing youth in the longitudinal study with youth completing the Youth Risk Behavior Survey (YRBS) using robust statistical methods. OAHYD anticipate that as more data is collected over the next few years, findings from this evaluation will not only provide an opportunity to inform and improve TPP programming, but will also assess the durability of TPP outcomes over time and the program's continued impact as the target audience matures.

Addendum

Table 2: Demographics of All FY14 TPP Participants at Program Entry Compared to TPP Participants Who Completed the 12-Month Follow-Up Survey

	All TPP, FY14 (N=2916)	TPP Longitudinal, 12 month survey, FY14 (n=83)
	%	%
Age		
<15 years	47.4%	6.3%
15-17 years	47.3%	58.2%
18+ years	5.2%	35.4%
Sex		
Male	41.7%	25.0%
Female	57.7%	75.0%
Transgender	0.6%	0.0%
Race/Ethnicity		
White non-Hispanic	26.9%	20.7%
Black non-Hispanic	11.8%	17.2%
Hispanic	45.1%	41.4%
Asian non-Hispanic	3.1%	0.0%
Other / Multiracial	13.0%	20.7%
Sexual Orientation		
Straight	88.4%	91.6%
LGBTQ	11.6%	8.4%
Disability Status		
Has a long-term learning disability	9.2%	<3%
Living Situation		
At home with parents	93.8%	89.2%
Somewhere else (includes with friends, at shelter, hotel/public place, foster care, on own in apartment or college dormitory)	6.2%	10.8%

Table 3: Protective Factors, TPP Longitudinal Study, 12-month survey, FY14 (n=83)

	TPP 12-month survey, FY14 %
Protective Factor	
Completed high school or GED program	32.3%
Enrolled in school, among those not having completed HS/GED	100.0%
Mostly A's and B's in school past 12 months	86.0%*
Connection to a trusted adult	81.9%
Involved in afterschool/community activity at least 1 day per week	73.2%
Reported very/somewhat likely to achieve future goals (self-efficacy/internal locus of control)	95.1%

*The percentage presented is among youth reporting current enrollment in middle or high school.