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Evaluating the Implementation of Baltimore City's Teen Pregnancy Prevention Initiative for Youth in Out-of-Home Placement: A Personal Responsibility and Education Program (PREP)

Baseline Evaluation

6/30/2017

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Acknowledgements

Baltimore City Health Department's (BCHD) Teen Pregnancy Prevention Initiative for Youth in Out of Home Placement was funded by the Maryland Department of Health and Mental Hygiene's (DHMH) Personal Responsibility and Education Program funds. PREP is funded by the United States Department of Health and Human Services, Administration for Children and Families, Family and Youth Services Bureau under the Affordable Care Act.

The authors would like to acknowledge and thank our partners for their efforts to support this study. We are grateful to all of the research participants of the *Power through Choices (PTC) & Adolescence Reproductive Health (ARH)* interventions. Without the assistance and support from Maryland's Department of Human Resources and Department of Juvenile Services, we would not have been able to conduct this evaluation. We would also like to acknowledge the expertise and guidance of BCHD, especially Catherine Watson, Tonya Johnson, Erin Wilson, Salimah Hassan-White, and William Tatum.

This report was prepared by the faculty and staff at the University of Maryland, School of Social Work's Ruth H. Young Center for Families & Children in partnership with staff at Baltimore City Health Department. Patricia Jones (DHMH), Nadine Finigan-Carr and Cathy Watson (BCHD) co-managed the interagency agreement that supports the development of this report. Nadine Finigan-Carr and Rochon Steward oversaw the *Power through Choices (PTC)* evaluation components. Nadine Finigan-Carr led the quantitative analysis from the survey data and led the final development of the written report.

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Executive Summary

BCHD's Teen Pregnancy Prevention Initiative for Out-of-Home Youth is one of ten programs under Maryland DHMH PREP funding designed to align with the expectations outlined by Congress in the 2010 Patient Protection and Affordable Care Act (ACA). State grantees, including Maryland, were encouraged to target their programs to high-risk populations. The youth targeted for this program were youth that resided in geographic areas with higher teen birth rates, as well as adjudicated youth, and youth in foster care.

This report documents *the BCHD's Teen Pregnancy Prevention Initiative for Out-of-Home Youth* baseline data. The findings in this report reflect data from youth from Maryland's Department of Juvenile Services (DJS), and Baltimore City's Department of Social Services (DSS). In addition, findings from this report also reflect data from adult providers (DJS and DSS staff) as well as foster parents. The PREP evaluation will continue to document Baltimore's program implementation and early outcomes.

The findings from each component of the *BCHD's Teen Pregnancy Prevention Initiative for Out-of-Home Youth* will foster further development for evidence on teen pregnancy prevention, and strategic decision-making to address barriers to successful replication and adaption of evidence-based programs.

Introduction

Over recent years, there have been significant drops in teen pregnancy rates across the United States. However, youth ages 15-19 still have a greater risk for negative consequences related with risk behaviors, such as making poor choices with relationships, early sexual activity, as well as a higher risk for sexually transmitted infections (STIs). In an effort to reduce these risk behaviors, Congress authorized the Person Responsibility Education Program (PREP) as part of the 2010 Patient Protection and Affordable Care Act (ACA). As a result, Congress appropriated $75 million in annual funding to PREP for both competitive and state grants administering evidence-based and promising new teen pregnancy prevention programs. The State of Maryland received PREP funding in 2010, along with forty-one other states (42 in total); three additional states received funding in 2011.

ACYF outlined four primary expectations for all state PREP grantees: 1) emphasize evidence-based programming; 2) focus on high-risk populations; 3) coverage of abstinence and contraception; and 4) incorporation of adulthood preparation subjects. DHMH solicited competitive applications to implement these models in existing community-based programs to prevent pregnancies and STIs among Maryland teens ages 10-19. BCHD submitted an application proposing to replicate an evidence-informed model within child welfare and juvenile services agencies to address the reproductive needs of these vulnerable youth. Based upon recommendations from the *Strategic Plan to Reduce Teen Births in Baltimore City*, a comprehensive approach to reducing teen pregnancy, the project aimed to increase access to sexuality education and confidential contraceptive services in order to promote positive sexual and reproductive health. As a part of this application, BCHD contracted with the University of Maryland, Baltimore's School of Social Work (UMSSW) to conduct the project evaluation. The evaluation aims to document how the intervention was operationalized and assess its effectiveness in reducing teenage pregnancies, STI's and sexual risk behaviors. The goal of the evaluation is to expand the evidence on

teen pregnancy prevention programs as well as identifying the successes and challenges in replicating or adapting evidenced-based programs for youth in out-of-home care.

Background and Significance

The need to address concerns of risky behavior and development in youth ages 14-21 have been a concern for over a decade, with the rise of teen pregnancy, rate of STIs in adolescent youth and domestic violence incidents. Although significant strides have been achieved in addressing Maryland's teen birth rates with a 44% decrease over the past decade and 7.8% decrease since 2013[1], many behaviors place out-of-home (OOH) youth (14-21 years) at a greater risk for these negative outcomes in comparison to their peers in the general population[2]. In Maryland, this trend is slowly declining for many jurisdictions; however, Baltimore City's rate has continued to be higher than the state average (41.0 per 1000 births to females ages 15-19 compared to 17.8 per 1000 births[3]).

Maryland developed and finalized a *State Teen Pregnancy Prevention Plan* with input from stakeholders across the state. In 2010, the Baltimore City Health Department, in partnership with Healthy Teen Network and the Johns Hopkins Center for Adolescent Health, completed a strategic plan to reduce teen pregnancy. Major recommendations included increasing access to evidence based sexuality education and contraceptive services, increasing youth outreach and connection especially among youth who may not be reached by school-based approaches or social marketing campaigns, and creating a City-wide coalition to oversee plan implementation.

Program Model Description

BCHD's Teen Pregnancy Prevention Initiative for Out-of-Home Youth has two intervention components:

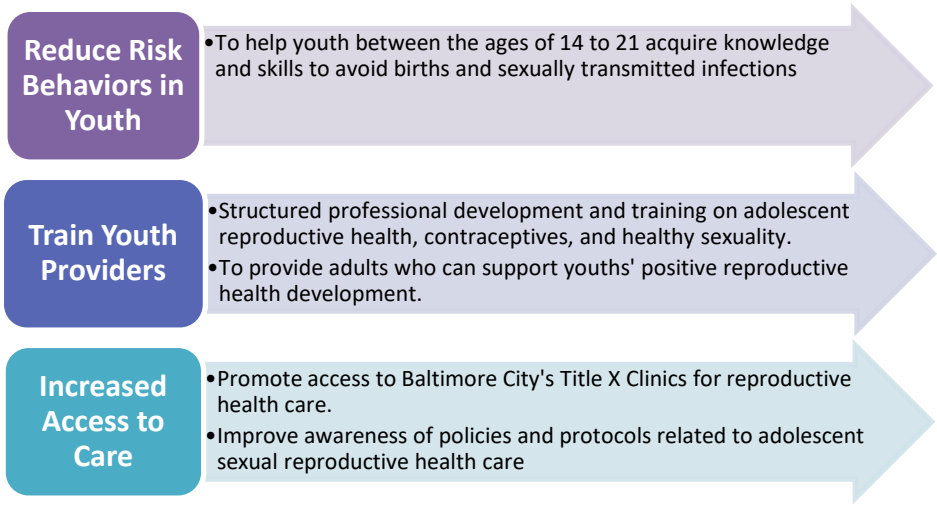
1) Using an evidence-based intervention with at-risk youth, specifically those in out-of-home settings in DSS and DJS, using the *Power through Choices* curriculum; and

2) Developing and evaluating an adolescent reproductive health intervention for youth providers, which included the DSS and DJS staff, as well as foster parents from both agencies.

Both components reflect a systematic holistic approach to addressing teen pregnancy within this vulnerable population. The expected outcomes and goals are consistent for both interventions. Figure 1 outlines the overarching PREP goals for both interventions.

[1] DHMH Vital Statistics Administration, 2014
[2] NYTD, September 2012
[3] The Annie E. Casey Foundation, KIDS COUNT Data Center, http://datacenter.kidscount.org

Figure 1 - Overarching PREP Goals for the BCHD's Teen Pregnancy Prevention Initiative for Out-of-Home Youth

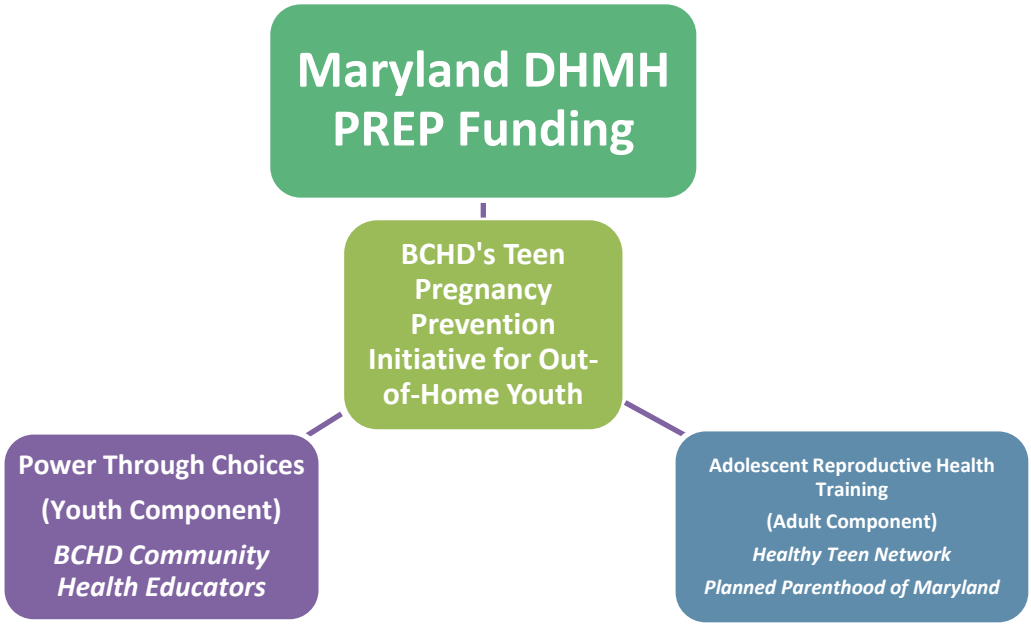


The UMSSW and the *BCHD's Teen Pregnancy Prevention Initiative for Out-of-Home Youth* collaborates with stakeholders to provide reproductive health information, education, and outreach; peer and significant adult education; and organizational support to achieve a change in teen pregnancy prevention knowledge, attitudes, and behavior among Baltimore youth in out of home placements ages 14-21. Specific program objectives are as follows:

- Objective 1. Pilot and implement a pregnancy prevention curriculum *Power through Choices* to be culturally, spiritually, and linguistically appropriate for out-of-home youth.
- Objective 2. Conduct focus groups with child welfare professionals and significant adults to identify concerns and age- and culturally-specific barriers to cross-generational pregnancy prevention communication.
- Objective 3. Develop and implement an educational pregnancy prevention intervention for adult providers.
- Objective 4. Evaluate the youth intervention using a quasi-experimental design to compare changes in teen pregnancy knowledge, attitudes, and behaviors between the target population and the general population of youth in Baltimore City.

The core of the intervention includes the implementation and evaluation of the evidence-based pregnancy prevention curriculum *Power through Choices* administered to identified youth and the *Adolescent Reproductive Health Training*, an educational pregnancy prevention intervention for child welfare and juvenile services professionals and foster care providers. The Healthy Teen Network and Planned Parenthood of Maryland worked together to provide the pregnancy prevention intervention for adult providers. Other collaborators include Baltimore City DSS and DJS. Figure 2 offers an illustration of the program design.

Figure 2 - Program Design for BCHD's Teen Pregnancy Prevention Initiative for Out-of-Home Youth



The BCHD's Teen Pregnancy Prevention Initiative for Out-of-Home Youth Theory of Change and Logic Model

The theory of change (Figure 3) outlines the program in an outcomes-based framework. The theory of change model can be helpful in defining the programs activities, outputs that are relative to the potential impact (short to long-term outcomes) towards change. The theory of change offers an overview of program services related to the intended changes for the goal of the initiative. The logic model describes the two training components of the program more specifically (Figure 4). It serves as a visual to describe the sequence of related program components, constructs, and events and how these relate to the overall initiative's intended results.

Figure 3 - Baltimore Teen Pregnancy Prevention for Out-of-Home Youth (ARH-PREP) Theory of Change

Aim

To promote positive sexual and reproductive health outcomes among out-of-home (OOH) youth utilizing a systematic holistic approach to sexuality education and contraceptive/sexual reproductive health services Interventions to improve the outcomes for youth in out-of-home care.

	Adolescent Reproductive Health Training	*Power Through Choices*
Activities	▪ **Provide in-person training sessions to youth providers (foster parents, DJS/DSS Staff) working with youth in OOH Care**	▪ **Provides an evidence-based intervention (training sessions) to youth in OOH Care**
Outputs	▪ No. of training sessions initiated ▪ No. of youth providers completing training ▪ # and type of youth providers engaged ▪ No. of pre-post evaluations completed	▪ No. of intervention sessions initiated ▪ No. of youth intervention sessions completed (dosage) ▪ # and type of youth engaged ▪ No. of pre-post evaluations completed

Impact: (Changes in Knowledge, Attitudes, and/or Practice)

Short-term Outcomes	▪ Increased confidence when engaging youth about sex, reproductive health and STI's ▪ Increased knowledge in adolescent development ▪ Increased knowledge of the basic effects of trauma on sexual development ▪ Decrease influences of individual "values" when engaging with youth	▪ Increased knowledge of sexual reproductive health, including STIs and contraception ▪ Increase in intent to use condoms and contraceptives for teen pregnancy prevention ▪ Increased social connections
Mid/Long-term Outcomes	▪ Structured staff development and training on reproductive health sustainable in CWA and other training systems ▪ Increased knowledge about current Maryland laws on adolescent access to sexual health care	▪ Embed intervention in life skills training for youth ▪ Increase in healthy relationships – platonic and romantic ▪ Reduction in teen pregnancies ▪ Reduction of risky sexual behaviors

0 **Timeframe** 5 years

Baltimore Teen Pregnancy Prevention for Out-of-Home Youth (ARH-PREP) was able to: (1) reach youth in OOH Care, and partner with youth providers (2) demonstrate increased knowledge, skills, and behaviors/attitudes of both youth and adults as noted by pre-post design, (3) and demonstrate increased engagement with youth by providers who received the intervention.

Evidence of Change

Figure 4 – Logic Model

BCHD's Teen Pregnancy Prevention Initiative for Out-of-Home Youth Logic Model

To work with collaborating stakeholders to develop a systematic, holistic approach that provides reproductive health information, education and outreach; peer and significant adult education; and organizational support to achieve a change in teen pregnancy prevention knowledge, attitudes, and behaviors among Baltimore's youth in out-of-home placements ages 14-21.

Inputs/ Resources (What We Invest)

- TargetAudience: Youth (Baltimore City, OOH Care-DJS/DSS, 14-21) & Youth Providers (DSS, DJS, Foster Parents)
- Intervention Staff & Trainers (Baltimore City Health Department, Planned Parenthood, Healthy Teen network, Fair Girls)
- Curriculum: Power through Choices & ARH
- Evaluation Staff (UMB)
- MOUs (DHR, DJS), Community Stakeholders
- Advertisements, Community Events, Fliers
- Compensation (Youth & Foster Parents)

Activities (What We Do)

- ARH: 1-day, 6-hour group training sessions
- PTC: 11, 90- min Group Training Sessions
- Referrals/Resources for Youth
- Evaluation- Pre-Post Assessments
- Community Events (Youth/PTC)

Outputs (Specific Process to Measure)

- % and # of eligible youth & youth providers that completed sessions
- % and # of youth & youth providers that show knowlege gain
- % and # of youth & youth providers that demonstrate behavior change
- Money expended (items purchased, gift cards)
- # and % of PTC & ARH Evaluations completed

Outcomes (Short-Term)

- 80% of youth providers have change in knowledge & resources for sexually active youth & 80% Youth have change in knowledge of teen preganancy prevention, STIs
- 70 % reported change in youth providers attitude/behaviors & 70% decrease in youth sexual risk behavior
- 50% increase in youth and youth providers participation (engagement)

Outcomes (Long-Term)

- Healthy relationships for youth 14-21 in OOH care
- Embedded training for youth providers working with OOH youth (DHR/DJS/Child Welfare Academy)
- Reduced rates of teen pregnancy with OOH care youth
- Improved self-management behavior for sexually active youth in OOH care
- Dissemination and Translation to the Field of Teen Pregnancy Prevention

Assumptions:
Youth and youth provider engagement, openness to participation, adequate funding, dedicated staff/stakeholders, IRB Approvals

External Factors:
IRB Delays, Lack of Eligible/Interested youth, Recruitment Concerns, Change in Administration (DHR/DJS Leaders), Staff changes, Culture, Political Environment, Technology changes

Components of Baltimore Teen Pregnancy Prevention for Out-of-Home Youth Interventions

Adult Intervention

For the adult component of the initiative, *Adolescent Reproductive Health Training (ARH)*, providers received direct educational training. The *ARH* offered healthy sexuality and teen pregnancy prevention supports to adult professionals and foster parents working with youth ages 14-19 in out-of-home care. The objectives of the adult training are as follows:

- Separate individual (self) values around sexuality from their professional role as a resource for youth.
- Understand the basic effects of trauma on sexual development and utilize strategies to discuss sexuality with youth who have experienced trauma
- Explain the current Maryland laws on adolescent access to sexual health care
- Answer youth questions about sexuality competently and comfortably
- Provide a wide array of sexuality referrals and resources to youth

The Baltimore City Health Department began implementing the *ARH Training* in 2012. As the initiative progressed, Maryland also considered the need to expand conversations to include the growing population of LGBTQ+ youth and issues related to youth in out-of-home care's vulnerability to sex-trafficking. The training is a foundational course intended to be administered in one day (6 hours). The course is critical for youth providers in understanding the effectiveness of current strategies and possible means to overcome any barriers to meeting the needs of youth in OOH care related to STIs and pregnancy prevention.

Focus Groups

To demonstrate the need for an educational pregnancy prevention curriculum for adult providers, a series of focus groups were conducted during the pilot phase of intervention development. Four focus groups were led by two staff members who are experienced social workers and researchers. Sessions were audio-taped and later transcribed for analysis. Several themes emerged. Four main themes presented here helped to further the intervention's development.

Theme 1 – **Conversations with youth about their sexual reproductive health**

Child welfare workers and foster parents, specifically, were concerned with having positive conversations with youth about their reproductive health concerns. They noted that they were expected to have these conversations with youth as a part of comprehensive case management; however, they did not always feel comfortable about their ability to have these conversations. The following quotes illustrate this:

> *"I believe that if we had more positive conversation with our youths surrounding sex, then I mean, you wouldn't see I guess the amount of teenage pregnancy that you do see."* – Child Welfare Worker

> It is important to have *"…trainings where you're able to learn correct and factual information and having snapshots and things…helps us be able to better engage [youth]"* – Child Welfare Worker

> We need *"Information in general about STDs so they know where to get help, so they can be treated and put back on the right path."* – Foster Mother

In response to this theme, the ARH training included modules on medically accurate information about adolescent sexual reproductive health and development. These modules were presented in an interactive manner using gamification techniques to improve retention.

Theme 2 – Reducing the stigma about the "sex talk"

Adult professionals understood that for many youth who had experienced trauma, talking about sex had an additional layer of stigma. They also realized that their own beliefs and values about sexuality sometimes made them uncomfortable with having these conversations with youth in their care. This is illustrated as follows:

> *"…some of them don't feel comfortable, uncomfortable with the body, they don't want to get put out, they don't want to get punished, they want to feel comfortable so they can continue to have trust."* – Foster Mother

> *"if you're not really comfortable with dealing with a teen who might have values that you don't have, then you're less likely to talk, or less likely to have that discussion with them because you are not feeling comfortable with going there."* - Child Welfare Worker

> *"We need to be more comfortable explaining to them and talking to them, instead of over exaggerating or getting upset. Instead talking to them calmly since you don't know what they're going through. It's hard for them to ask those questions."* – Foster Mother

It is apparent from these quotes that the stigma associated with having these conversations were a barrier for adults to discuss sexual reproductive health with youth in their care. Modules of the ARH training included how to have difficult conversations with youth and an integration of trauma informed responses throughout in response to this theme.

Theme 3 – Inclusion of the adolescent's viewpoint

Adult participants also recognized that they needed to hear from teens about how they felt their sexual reproductive health needs were being met and how to respond to them. The following illustrative quotes support this:

> *"…having some of the teens sitting with us to get their point of view, to get their viewpoint as well, getting feedback from them."* – Child Welfare Worker

> *"They [foster youth] can have their own separate workshop, and then we take that information, and we learn how to respond back to it. So like real life case scenarios, where they say you know, 'I was put in this situation, and I wanted to ask blah blah blah…' so that we would know how to better respond to them"* – Child Welfare Worker

The final version of the ARH training included videos of youth discussing healthy relationships, sexual reproductive health, and LGBTQ+ concerns so that the adolescent's voice could be heard.

Theme 4 – Training Needs

Adult providers were clear as to what specific information they felt was needed from a training. In addition to what was reported in the prior themes, one DJS case manager said, *"I think it's good if workers who have to deal with the teenagers and families, that if we first know the resources and the laws and the rules, and make us better informed, then we can inform our clients. But we have to know the information."*

The final ARH training was comprised of ten modules that covered values, federal and state laws about access to reproductive health care for minors, healthy and unhealthy relationships, sexually transmitted infections, contraception, LGBTQ+ youth, and communicating with youth about their sexual health and sexuality.

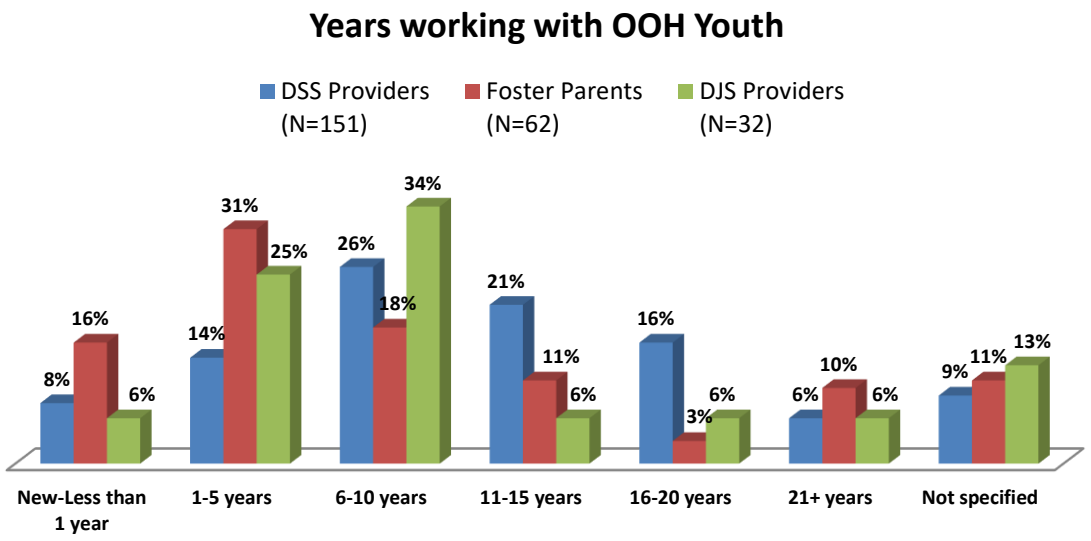
Adult Intervention (ARH Training)

All youth providers (foster parents, child welfare staff, and juvenile justice professionals) were notified of the training through the training units of their respective agencies and/or the Child Welfare Academy (CWA) at the UMSSW. Child welfare staff (DSS) and juvenile justice professionals (DJS) were compensated via Continuing Education Units (CEUs) or training hours for participation in the intervention. Foster parents also received training hours in addition to $20 to compensate their time. The six-hour training includes a pre-post assessment.

During this reporting period, there were 25 trainings for youth providers. The majority were conducted with DSS workers (14 trainings), followed by foster parents (8 trainings), and lastly DJS workers (3 trainings). 256 youth providers agreed to participate in the study.

Female participants with a four-year degree were the majority across all of the affinity groups who participated in the ARH Adult Training. Youth providers had varying degrees of experience working with OOH youth, DSS providers and DJS providers had approximately 6-10 years of experience (26% and 34% respectively). The majority of the foster parents reported having 1-5 years' experience (31%) working with OOH youth. Figure 5 outlines youth providers experience working with OOH youth. Child welfare workers tended to have more education. Foster parents tended to be older. Statistical comparisons between the groups were not conducted due to the size differences between them. Additional demographic information about the youth providers are in the Appendices.

Figure 5 – Years working with OOH youth by affinity group



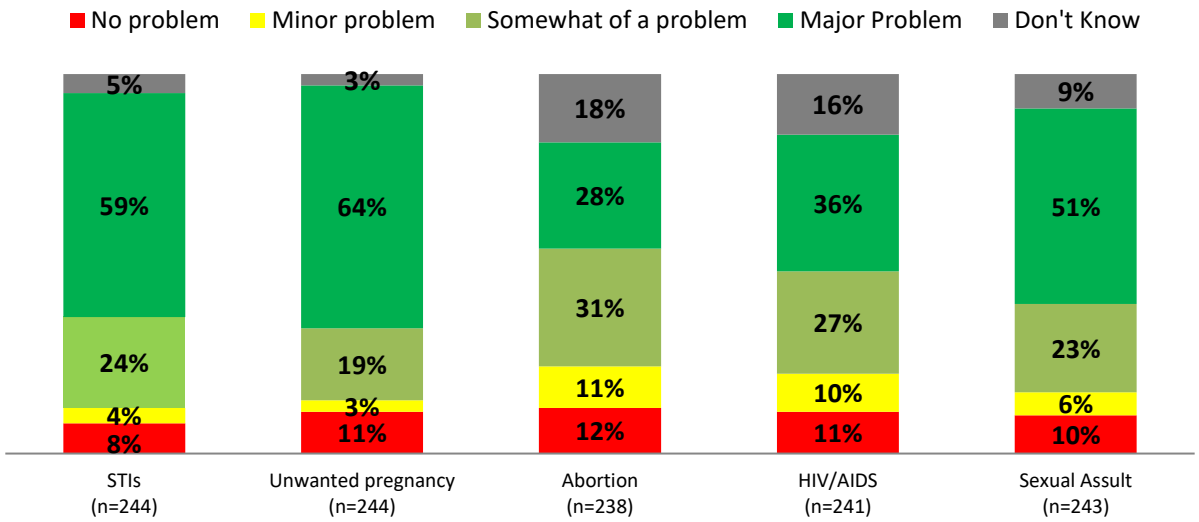
Baseline Survey

Prior to training, a baseline survey (10 minutes) is administered to youth providers who agree to participate in the evaluation. The pre-assessment collects demographic information, perceptions of sexual reproductive health needs for OOH youth (beliefs), self-report of behaviors related to working with youth regarding sexuality and pregnancy prevention (practice), as well as knowledge and attitudes.

Problematic Behaviors in OOH Youth

In order to assess their beliefs about adolescent sexual health issues, professionals were asked to identify problematic behavioral health issues for OOH youth. Overall, unwanted pregnancy (64%), STIs (59%), and sexual assault (51%) were identified as the top three major behavioral health issues for OOH youth across all affinity groups. However, DSS and DJS professionals reported higher rates for each of the identified health behaviors. Figure 6 outlines participants' perspectives of problematic behavioral health issues across the 5-pt Likert scale.

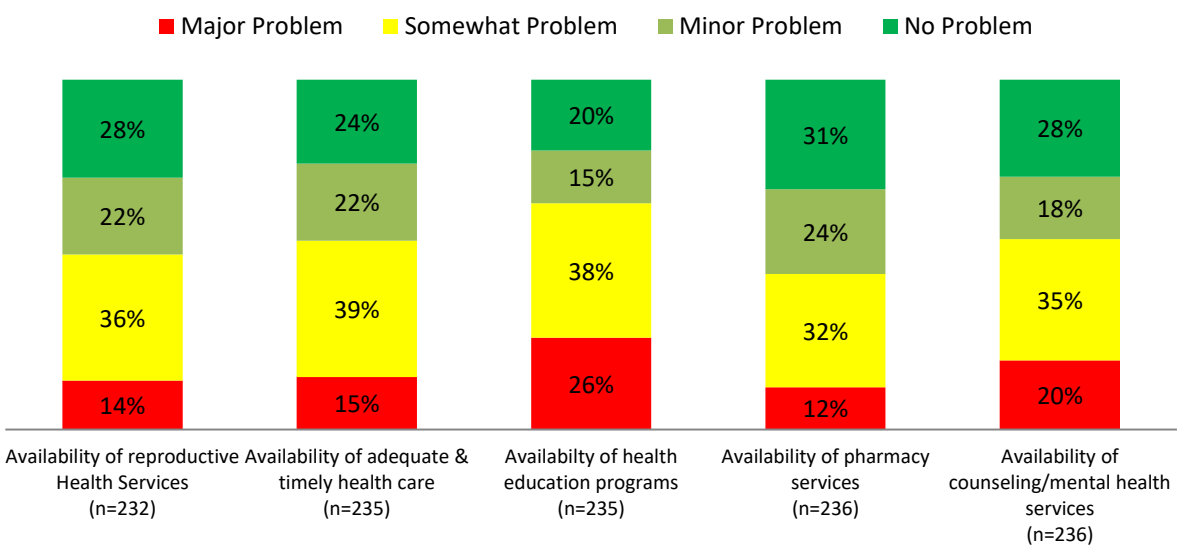
Figure 6 – Participants perspectives of problematic behavioral health issues



Problematic Health/Social Services for OOH Youth

Professionals were asked to identify problematic health/social services issues for OOH youth. Overall, across affinity groups, availability of pharmacy services (31%), counseling and mental health services (28%) and reproductive health services (28%) were identified as problematic health/social services with limited access/availability for OOH youth. Figure 7 outlines participants' perspectives of problem with access of availability of health/social services using a 4-pt Likert scale. Upon further examination by affinity group, DSS professionals identified availability of health education programs as the most challenging problem for OOH youth (29%). Foster parents identified lack of counseling and mental health services (15%) and availability of health education services (15%) as the most challenging problem for OOH youth. DJS professionals identified availability of counseling and mental health services (35%) as the most challenging problem for OOH youth.

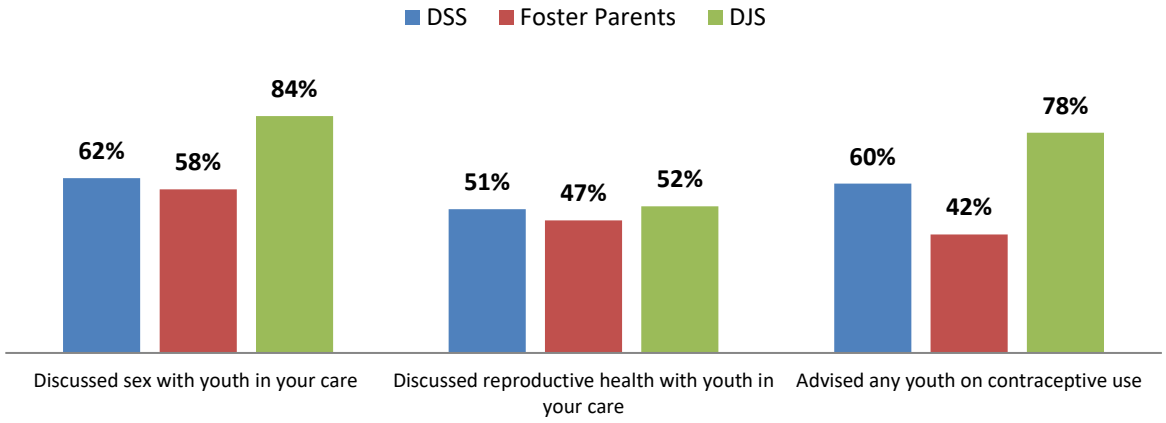
Figure 7 – Providers' overall perspectives of problematic health/social service issues



Youth Providers Practice at Baseline

The baseline survey examined self-reported behaviors related to working with youth regarding sexuality and pregnancy prevention. Figure 8 highlights youth providers confirmation of engagement of OOH youth regarding sexuality and pregnancy prevention outlining three questions: *In the past three months, have you...discussed sex with any youth in your care; discussed reproductive health with any youth in your care; and advised any youth in your care on contraceptive use.* Findings suggest that approximately half of DSS professionals are consistently engaging youth regarding sexuality and pregnancy prevention. The data also notes that less than half of foster parents are actively engaging youth regarding reproductive health and contraceptive use, and a little over half are discussing sex with youth in their care. Additionally, findings also suggest that approximately 80% of DJS professionals are consistently engaging youth by discussing sex and advising youth on contraceptive use.

Figure 8 – Youth providers self-report of practice at baseline (Yes)



Youth Providers Knowledge (Baseline)

In addition, adult participants' (youth providers) knowledge and attitudes were assessed on training related content and attitudes. Overall, youth providers had 69% of items correct across all items. Table 1 highlights knowledge and attitude items across each of the youth providers who participated in the research. DSS professionals' knowledge and attitudes scores fared higher (73%) than the other youth providers.

Table 1 – Percentage of correct responses to pre-test knowledge and attitudes items

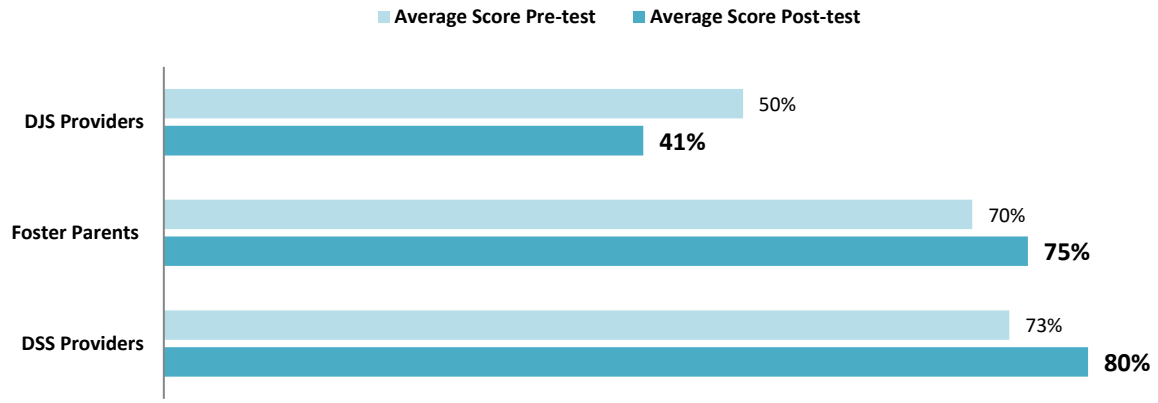
	% Overall Correct	% DSS Staff Correct	% Foster Parents Correct	% DJS Staff Correct
In Maryland, teens can get birth control confidentially and without parental involvement	**92%**	92%	96%	81%
When a youth you work with asks you personal questions, it is best to answer them directly.	**47%**	59%	30%	22%
You should avoid talking about sexual topics with youth who have experienced trauma.	**61%**	64%	73%	22%
Using hormonal birth control can make it difficult for a woman to get pregnant in the future	**61%**	64%	68%	34%
Many people do not have, or notice, symptoms when they have a STD.	**85%**	86%	82%	91%
Average Score for Knowledge items:	**69%**	**73%**	**70%**	**50%**

Providers' knowledge of information related to access to birth control and symptoms of STDs were high at baseline across affinity groups. However, there were definite knowledge gaps related to how contraception works and attitudes towards discussing sexual topics with youth.

Adult Providers Knowledge (Same Day Post-test)

After training, a post-assessment is administered to assess changes in knowledge and attitudes due to the training. Figure 9 highlights the average score gains for each affinity group. Findings suggest DJS professionals had the least change in knowledge and behaviors due to the training (-9% loss); while DSS professionals showed the greatest change in knowledge and behaviors due to the training (13% gain).

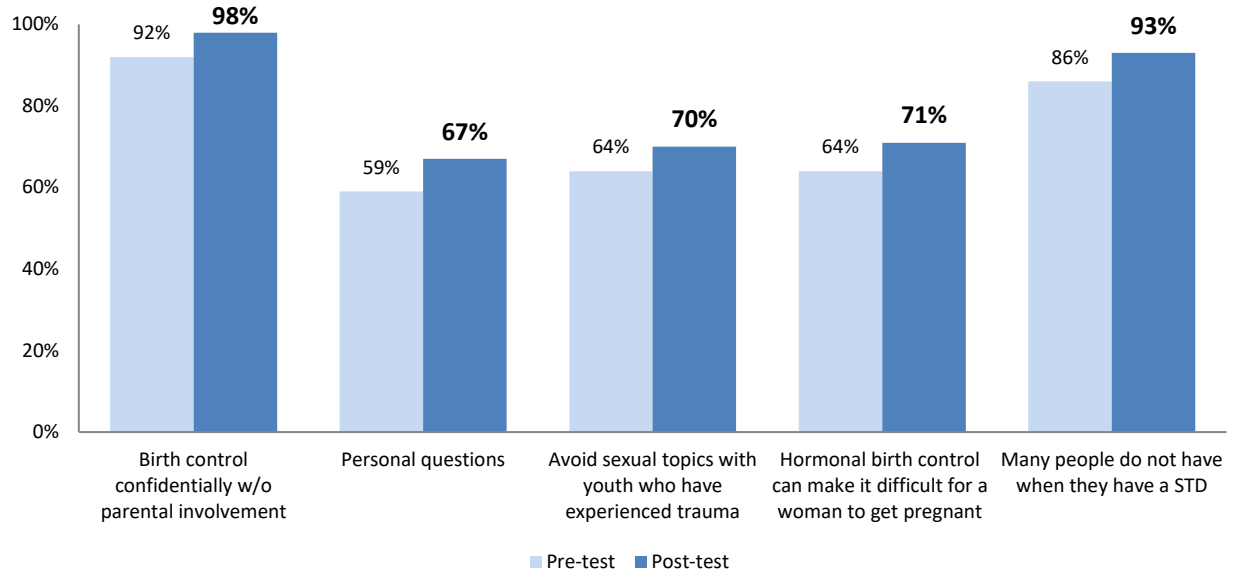
Figure 9 – Comparison of Average Pre-Post Knowledge Scores across adult provider groups



DSS Providers

DSS providers exhibited the greatest knowledge/attitude change across all items. Despite initial low pre-test scores, both attitude items saw significant gains with the post-test administration (Figure 10).

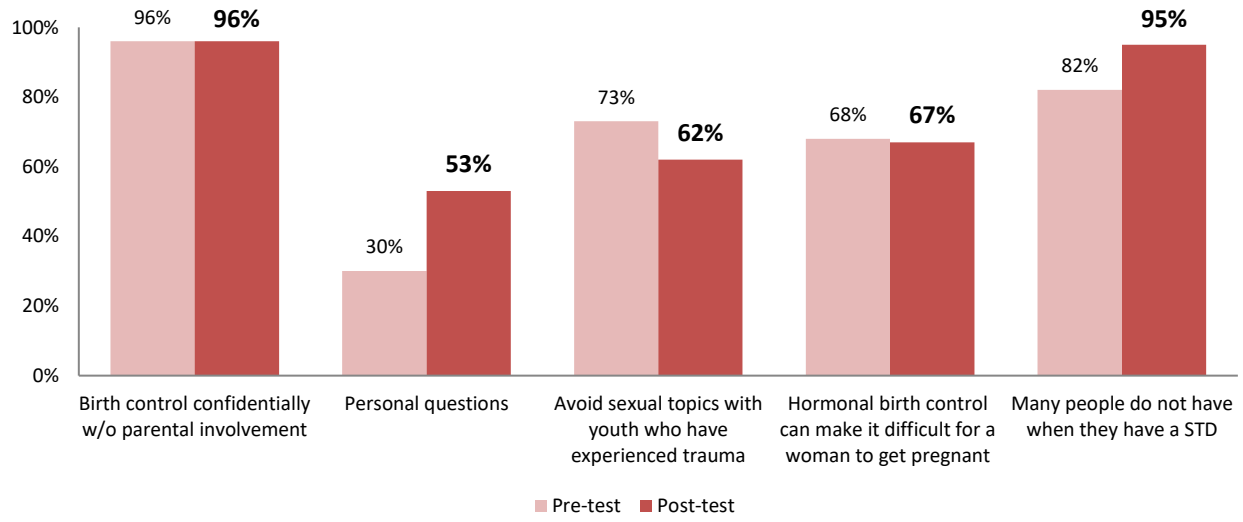
Figure 10 – DSS Providers Pre-Post Comparison



Foster Parents

Foster parents exhibited the greatest positive change in their attitudes about discussing personal questions with youth. However, there was a slight decrease in their attitudes about avoiding sexual topics with youth who have experienced trauma (Figure 11).

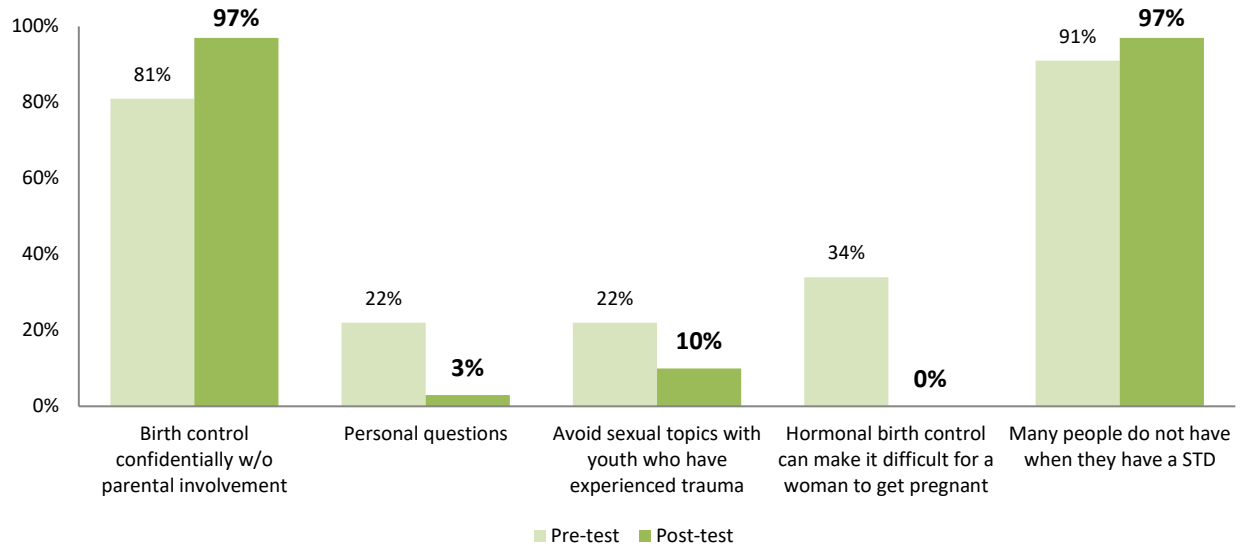
Figure 11 – Foster Parents Pre-Post Comparison



DJS Providers

DJS professionals exhibited gains regarding knowledge about birth control confidentiality. However, findings indicate either little or no knowledge gain for the remaining items (Figure 12).

Figure 12 – DJS Providers Pre-Post Comparison

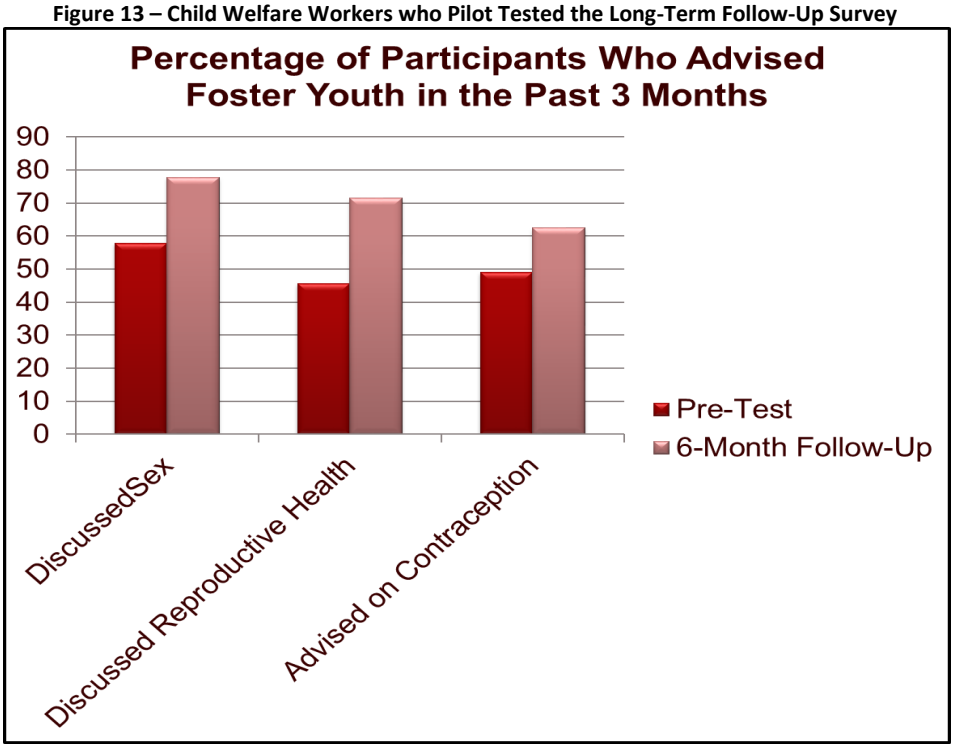


Long-Term Follow-up Survey

The original evaluation plan was to administer long-term follow-up surveys to all providers 6-months and 12-months post-training via email. The survey instrument has been tested with groups of providers trained in the first year of implementation. These tests show that the instrument is able to be administered using an online format.

Preliminary results from the small sample of child welfare workers who tested the survey instrument show promise. In the three months prior to the long-term follow-up survey, workers were significantly more likely to have had conversations about sex, and to have advised youth on reproductive health and contraception than in the three months prior to the baseline survey ($p < 0.001$).

Figure 13 – Child Welfare Workers who Pilot Tested the Long-Term Follow-Up Survey



Although the online platform is feasible for long-term follow-up surveys of the adult participants, there were some challenges. Most of them were due to issues with email contact information for the providers. Specifically, DSS workers emails were migrated to a new system making contact difficult for those trained in the prior year(s); foster parents in both agencies rarely had emails and/or rarely checked their email. As the intervention was being piloted and finalized, long-term follow-up was suspended until the final version was completed and these contact issues were resolved. February 2017 began the 12-month administration of the survey for those trained using the finalized version of the training. Future research to assess if knowledge is sustainable over time would provide greater insight into how this impacts the practice of those working with out-of-home youth.

Youth Intervention

For the youth component of the initiative, youth in out-of-home care in Baltimore City received direct services through tailored educational programs. The *Power through Choices* curriculum was selected as the evidence-informed intervention used for this study. The curriculum was specifically written for youth and young adults between ages 14-21 residing in out-of-home settings. The *Power through Choices* curriculum is comprised of ten (10), two-hour group sessions (90-minute sessions, 30-minute rapport building and meal), with a minimum of ten (10) youth registered per session. The sessions usually are provided twice a week over a five-week period. There are two main themes for the *Power through Choices* curriculum: 1) self-empowerment and 2) impact of choices on an individual's future. An eleventh session focused on awareness of human trafficking was added in the fourth year in response to the vulnerability of this population to commercial sexual exploitation. Collaborating stakeholders worked together to provide reproductive health information, education, and outreach to achieve a change in teen pregnancy prevention knowledge, attitudes and behavior among these vulnerable youth ages 14-21.

The curriculum workshop topics include the following:

- *Choices about the Future and Relationships*
- *Understanding STIs and HIV and How to Reduce Your Risk*
- *Increasing Contraceptive Knowledge*
- *Human Trafficking and Commercial Sexual Exploitation of Children and Youth*

Youth who agree to participate in the evaluation are consented prior to the first day of the intervention sessions and complete a pre-assessment (baseline survey). Youth are then asked to complete surveys at three additional time points: 1) after the completion of the 11 sessions, 2) 3 months after the training sessions, and 3) 9 months after the training session. DSS and DJS youth participants are given compensation for their time to complete the four (4) surveys in the form of $20 gift cards per survey completed for a possible total of $80 in gift cards. Once consented, youth are incentivized to continue participating in sessions. However, they are free to leave the intervention at any time. Raffles and hygiene gift packs are distributed at each session to reward attendance. Any participant who completes at least 10 sessions receives a $50 gift card. All person(s) attending the next highest number of sessions receive a $40 gift card. All person(s) attending the third highest number of sessions receive a $30 gift card. Gift cards are distributed upon completion of the follow-up survey.

The Baltimore City Health Department began implementing the *Power through Choices* intervention in 2012, with training and strategic planning efforts focused on reaching youth in areas of greatest need, those youth in out-of-home care. As the initiative progressed, Maryland also considered the needs of LGBTQ+ youth, as well as the vulnerability of youth in out-of-home care to traffickers.

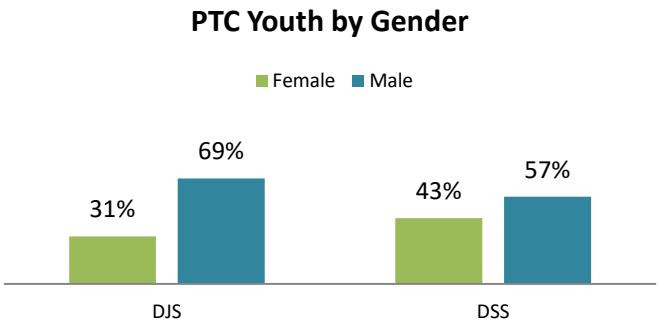
Despite all of the efforts in place to recruit youth, securing targeted OOH youth posed a real challenge. There were 27 cycles of the intervention offered for youth ages 14-21 between 2012 and 2016. To date, 270[4] youth were recruited and consented to participate. 71.7% were from DSS and 28.9% were DJS youth. Baseline demographics of the youth are provided in Table 2. Figure 14 provides the gender breakdown of these youth by agency placement.

[4] 274 youth were recruited and consented, but three (3) youth decided to withdraw from the study and one was found to be a duplicate.

Table 2 – Youth Participant Demographics at Baseline

Baseline Characteristics	%
Gender	
Male	60.7
Female	39.3
Age: X (range)	17.67 years (13-24 years)
Race/Ethnicity[5]	
African American	82.0
Latinx	7.9
Other	28.0
System Involvement	
Child Welfare	71.7
Juvenile Justice	28.8

Figure 14 – Gender by Agency Placement



Retention of youth over the course of the intervention was also found to be challenging with this highly transient population. It was not unusual to consent a group of youth who were in different out-of-home placements by the end of the five weeks thereby being unable to attend sessions. As a result, only 29% (N=78) of youth completed 8-10 sessions as well as the follow-up survey.

Baseline Factors

Prior to the intervention's implementation, a baseline survey (~30 minutes) is administered to youth who agree to participate in the evaluation. The pre-assessment collects demographic information, views/perceptions of healthy sexual relationships and development, as well as self-report of behaviors related to sexuality, sexual activity, STIs, drug and/or alcohol use, and attitudes about aggression/ violence as well as social supports (friends and relationships).

Table 3 - Ever Had Sex (Vaginal, Oral or Anal) By Gender[6]

Gender – N (%)	No	Yes
Male – 139 (60.7%)	31 (22.3%)	108 (77.7%)
Female – 90 (39.3%)	23 (25.6%)	67 (74.4%)
Total	54 (23.6%)	175 (76.4%)

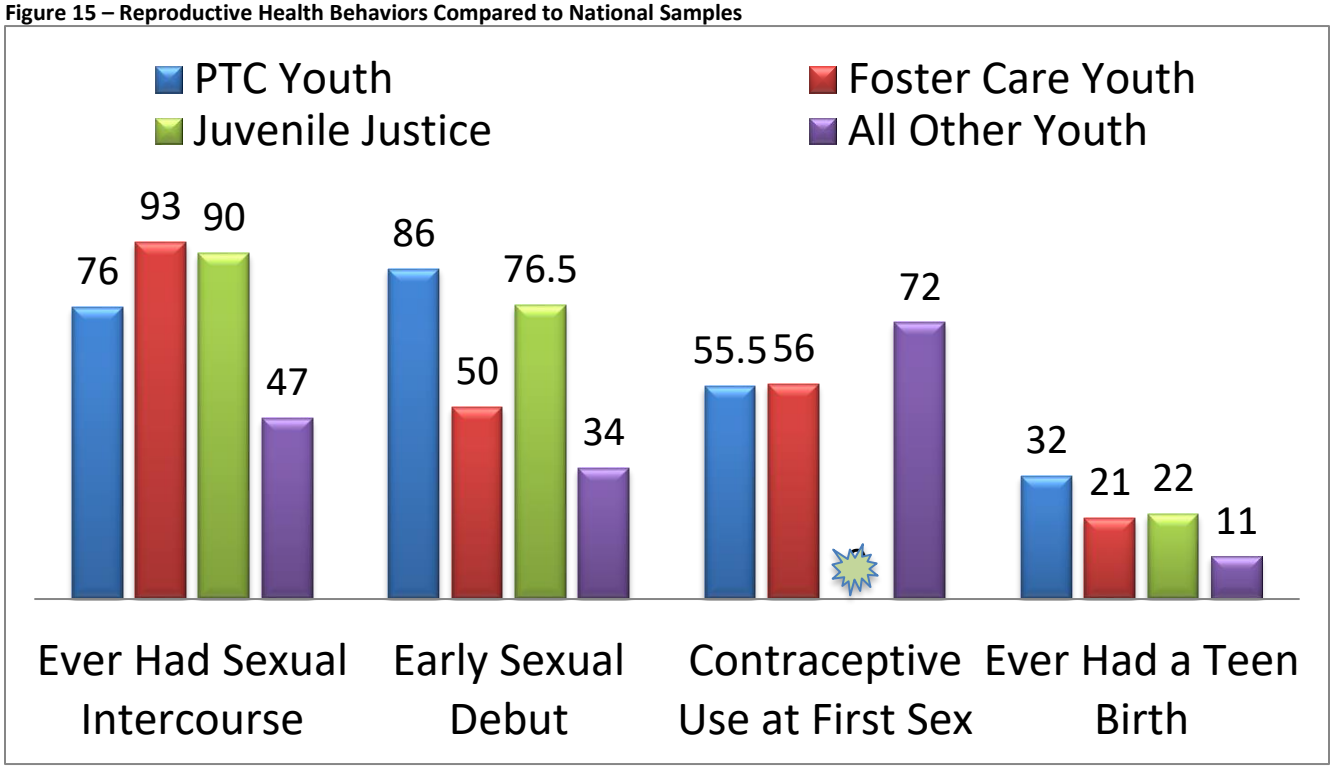
The majority of the youth who participated in the intervention (76.4%) were sexually active at baseline (Table 3). Early sexual debut was an issue with 86% of participants reporting that they had sex before the age of 16. The mean age at

[5] Race/Ethnicity are not mutually exclusive. One could have selected a race and Latinx.
[6] 229 youth reported their gender. Total number of youth in study is 270.

first sex was 13.5 (S.D. 2.4) years old[7]. 55.5% used any form of birth control the first time they had sexual intercourse. Of those who had used birth control at first sex, the majority used condoms (82.8%). More than 55% of the sample had a partner at least one year older than them at first sex (33.9% one-two years older; 21.2% three or more years older).

Figure 15 provides the sexual reproductive health behaviors of the sexually active participants in the sample compared to nationally representative samples of youth in out-of-home care and the general population of youth. PTC youth were slightly less likely to be sexually active than other samples of youth in care but still significantly more likely when compared to youth in the general population. They were significantly more likely to have experienced early sexual debut and to have become a teen parent. Their contraceptive use at first sex mirrored that of other child welfare samples[8] and is less likely compared to their peers not in foster care.

Figure 15 – Reproductive Health Behaviors Compared to National Samples



Looking at the teen pregnancy and parenting data more closely, 34% of the teens had either been pregnant or gotten someone pregnant at baseline. 47% of them had done so more than once. Contraceptive use, specifically condom use, is promoted as effective ways to reduce teen pregnancy and STDs. Although 56% had used some form of contraception at first sex. 53.5% of the participants reported that they were unaware that condom use can decrease their risk of getting HIV/AIDS and other STIs. This lack of knowledge of condoms' effectiveness is reflected in the decreased use of condoms and contraceptives in the past 3 months. Of those who have had sex, 98% of participants had had sex without a condom in the 3 months prior to baseline (72% of total sample); 59% had had sex without any birth control (44% of the total sample). This puts these teens at high risk for not only teen pregnancy but also sexually transmitted infections.

Youth in this sample exhibited numerous other high-risk factors. The mean number of sexual partners was 10.0 (SD 9.9). Just under 12% had received no sexual health education whatsoever; 26% had received comprehensive sexual health education. Substance use and abuse was also a risk behavior reported in this sample. Approximately 18% reported no

[7] 49 individuals reported their first sexual experience as occurring under age 12 with the youngest being 5 years old. This is assumed to be due to the sexual abuse which brought them into the child welfare system.
[8] Data on contraceptive use at first sex is not available for nationally representative samples of youth in the juvenile justice system.

drug use. Whereas, 32% reported using at least marijuana with just under 20% reporting the use of marijuana and up to three other illegal substances. Specifically, 43% reported having had alcohol; and, 46% reported having smoked cigarettes in their lifetime.

Further examination of the characteristics of youth in this sample show that there are protective factors. A little over 79% of youth report that religion and spirituality are somewhat or very important in their lives. Roughly half of them also report that they have an adult in their life who they feel genuinely cares about them. Both of these factors have been shown to be beneficial as youth transition from out-of-home care into adulthood.

Gender Comparisons

Further analyses were conducted to identify if there were differences among the sexual health behaviors by gender for those who were found to be sexually active. Differences were found for age at first sex (i.e. sexual debut), partner age at first sex, contraception use at first sex, and number of lifetime partners (Table 4).

Table 4 – Sexual Reproductive Health Behaviors by Gender of those who have Ever Had Sex

	Males	Females	Total	Significance
Age at First Sex				
<11 years old	22 (24.7)	5 (18.7)	28 (18.4)	$X^2 = 5.88$ p = 0.05*
Early Adolescence (12-14 years old)	43 (26.9)	34 (59.7)	79 (51.9)	
Late Adolescence (15-21 years old)	24 (26.9)	18 (31.6)	45 (29.6)	
Partner Age at First Sex				
3+ years younger	1 (1.0)	3 (4.8)	4 (2.5)	$X^2 = 11.16$ p = 0.02*
1-2 years younger	13 (13.5)	5 (8.0)	18 (11.4)	
The same age as you	36 (37.5)	13 (21.0)	49 (31.0)	
1-2 years older	32 (33.3)	22 (35.5)	54 (34.2)	
3+ years older	14 (14.6)	19 (30.7)	33 (20.9)	
Contraception Use at First Sex				
No	49 (53.8)	17 (28.3)	66 (43.7)	$X^2 = 9.57$ p = 0.00*
Yes	42 (46.2)	43 (71.7)	85 (56.2)	
Condom Use at First Sex				
No	16 (25.8)	8 (15.69)	24 (21.2)	$X^2 = 1.71$ p = 0.19
Yes	46 (74.2)	43 (84.3)	89 (78.8)	
Sex without Contraception in the Past 3 Months				
No	41 (37.6)	30 (44.1)	71 (40.1)	$X^2 = 0.73$ p = 0.39
Yes	68 (62.4)	38 (55.9)	106 (59.9)	
Sex without Condom Use in the Past 3 Months				
No	1 (0.9)	2 (2.9)	3 (1.69)	$X^2 = 1.00$ p = 0.31
Yes	108 (99.1)	67 (97.1)	175 (98.31)	
Ever Pregnant/Got Someone Pregnant				
No	64 (65.9)	41 (65.1)	105 (65.6)	$X^2 = 0.01$ p = 0.90
Yes	33 (34.0)	22 (34.9)	55 (34.4)	
Lifetime Partners (Mean, S.D.)	12.2 (1.1)	6.1 (0.87)	10 (9.9)	Spearman correlation = -0.31 p = 0.00*

For age at first sex, males tend to be evenly split as to whether their first experience was during childhood, early or late adolescence. Females were significantly more likely to experience sexual debut at an earlier age (p=0.05) with the majority of these experiences during early adolescence (59.7%). Female partners at first sex tended to be older than those of males. Specifically, 30.7% of females had a partner three or more years older than them compared to only 14.6% of the males (p=0.02). Females were also more likely to have used contraception at first sex at a statistically

significant level (p=0.00). In looking at mean number of lifetime partners, males had significantly more partners than females in this sample (p=0.00).

Pubertal Development

Puberty is a dynamic interplay of biological, psychological, and social processes. Previous research has examined the linkages between abuse and neglect and pubertal timing. The extant literature has also made linkages between sexual risk behaviors and pubertal development. The current analyses specifically examine the linkages between sexual risk behaviors and pubertal development among youth in out-of-home care who have experienced some form of abuse and neglect.

Pubertal timing was assessed differently for boys and girls. Girls were asked two questions – 1) Have you ever had your menstrual period? 2) How old were you when you had your first menstrual period? Boys were given a description of biological changes, including those involving genitals and body hair. Then they were asked, "which of the following best describes these changes for you? A Likert scale of 1-4 was provided ranging from "these changes have not yet started" to "these changes seem complete." They were then asked to state how old they were when the changes started. The majority of girls (59.3%) and a substantial number of boys (37.2%) reported early pubertal development.

At first, we examined differences between pubertal timing and age at first sex. (Table 5). No statistically significant differences were found.

Table 5 – Pubertal Timing by Age at First Sex

	Age at First Sex		
Pubertal Timing	**11 and Under**	**Early Adolescence**	**Late Adolescence**
Normal	18.6%	48.8%	32.6%
Early	18.18%	56.0%	25.8%

Subsequent analyses found moderate bivariate associations between pubertal development and other sexual risk behaviors. A logistic regression was conducted to determine the odds of engaging in sex without a condom in the past three months. A differential in the odds of engaging in sex without a condom was found between early and normal developers ($p<0.05$). Girls were less likely to engage in sex without a condom if they were late developers (O.R. -1.012; $p<0.05$). The differential for boys was not significant.

Refine the PTC and MPC

Although *Power Through Choices* is an evidence-informed intervention that shows promise in having an impact on pregnancy prevention and reduction of STIs for youth in out-of-home care, there are issues with ongoing training and implementation that make it difficult to expand as the project moves into an additional jurisdiction. As such, *Making Proud Choices for Youth in Out-of-Home Care* will be implemented as the curriculum for the intervention in the next iteration of the project. It has the evidence-based strengths of the original curriculum; and, has been adapted to address the unique and specific concerns of youth placed in out-of-home care. This includes a focus on healthy relationships, a strengths-based approach, trauma-informed facilitation, and respect for diversity, including LGBTQ+ youth. Future analyses will involve not only comparisons of youth outcomes but also comparisons based on curriculum employed.

Clarify Youth Recruitment and Retention Issues

Throughout the project, youth recruitment and retention has continued to be an issue. A PREP Program Associate was hired who had a similar background to youth in out-of-home care to assist with recruitment and implementation. Collaborators and project partners pooled resources to increase participation by those recruited and increase awareness of the intervention. With the addition of DJS, this improved slightly. However, the addition of those adjudicated youth skewed the gender composition to be predominantly male. In the next iteration of the project, the program will be expanding to include youth from Baltimore County as these youth have similar sociodemographic issues. It is hoped that by doing so more youth will be able to participate in this intervention.

Additional Next Steps

This report has been presented in part at various local and national venues. This final version is a compilation of all currently available data and analyses of both the adult and youth components of the *Baltimore City's Teen Pregnancy Prevention Initiative for Youth in Out-Of-Home Placement.* The UMSSW will work with the Baltimore City Health Department to develop a dissemination plan for these findings.

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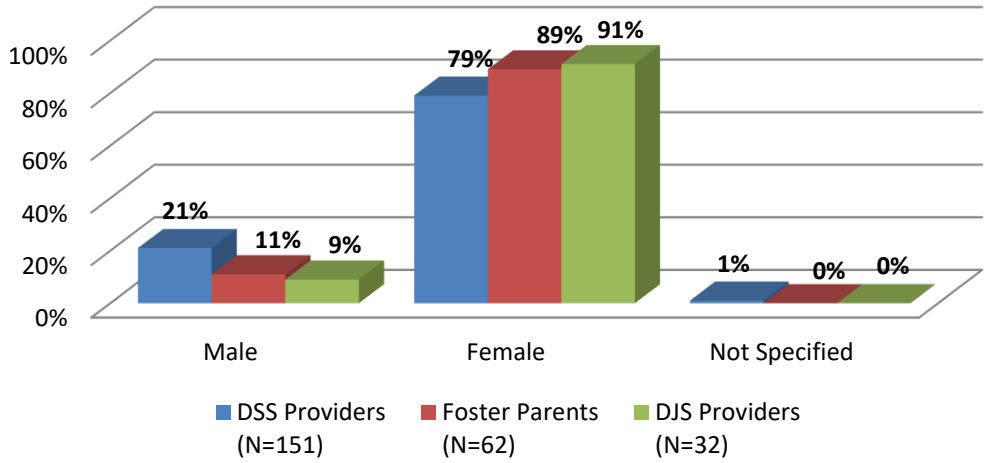
Appendix A. Demographic Information of AHR Participants

Gender of AHR Participants by Affinity Group

Overwhelmingly, female professionals participated in the AHR trainings. On average, 14% of the participants across affinity groups were male, and the majority, 86% across affinity groups was female. Only .33%, of the population, across affinity groups did not specify their gender. The figure below highlights gender for each affinity group.

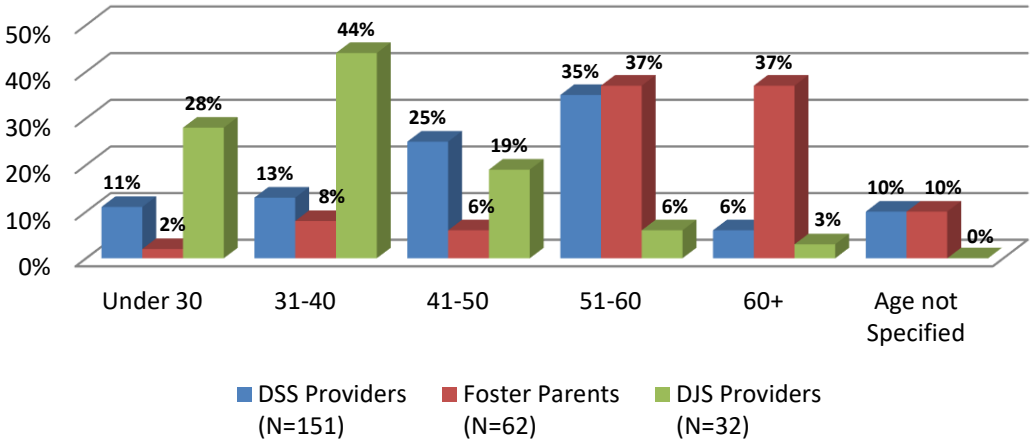
Figure 1- Gender of AHR Participants



Age of AHR Participants by Affinity Group

The ages of participants varied across affinity groups. On average, only 14% of the participants were under 30 years of age. On average, 22% of the participants were between the ages of 30-40 and 17% were between the ages of 41-50. The majority of the participants, 26% were between the ages of 51-60, while only 15% of the participants were over 60 years old. However, on average, 7% of the participants did not share their age.

Figure 2- Age of AHR Participants



Race by AHR Participants across Affinity Groups

AHR participants provided demographic information in the initial pre-test. Information regarding racial identity was collected and participants were able to select multiple racial groups[9]. Overwhelmingly, African Americans were

[9] Percentages reflect for each variable and will not total 100% due to multiple responses allowed.

identified as the largest represented racial group who participated across affinity groups, on average at 91%. Across affinity groups, approximately 4% of participants on average identified as "Other". Participants identified "Other" as the following: *"Moor"," Biracial", "West African", "Americana", "Asiatic", "Mixed", and "Mixed with Hispanic".*

Table 1- Race of AHR Participants across Affinity Groups

	DSS Providers (N=151)	Foster Parents (N=62)	DJS Providers (N=32)	Total Average of AHR Participants
White	8% (12)	5% (3)	10% (3)	8%
African American	89% (134)	89% (55)	94% (30)	91%
Asian	0% (0)	0% (0)	0% (0)	0%
American Indian/Native American	1% (1)	3% (2)	0% (0)	1%
NH or OPI	0% (0)	0% (0)	0% (0)	0%
Other	4% (6)	6% (4)	3% (1)	4%