Contract Number:
HHSP23320082911YC

Mathematica Reference Number:
06549.094

Submitted to:
Office of Adolescent Health
Department of Health & Human Services
1101 Wootton Parkway, Suite 700
Rockville, MD 20852

Project Officer: Amy Farb

Submitted by:
Mathematica Policy Research
P.O. Box 2393
Princeton, NJ 08543-2393
Telephone: (609) 799-3535
Facsimile: (609) 799-0005

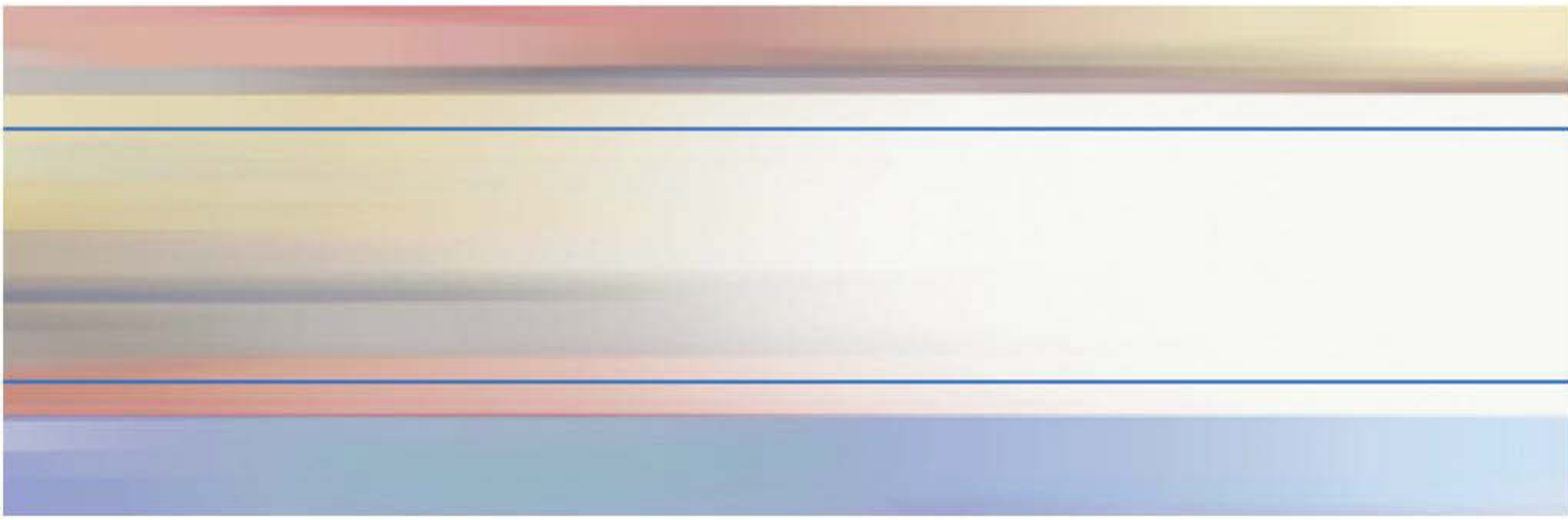
Project Director: Brian Goesling

Preventing Rapid Repeat Teen Pregnancy with Motivational Interviewing and Contraceptive Access: Implementing Teen Options to Prevent Pregnancy (T.O.P.P.)

Implementation Report

July 24, 2014

Alicia Meckstroth
Amanda Berger (Child Trends)



This page is left blank for double-sided printing.

CONTENTS

This page is left blank for double-sided printing.

TABLES

FIGURES

This page is left blank for double-sided printing.

I. INTRODUCTION

Although teen births rates in the United States have been on the decline in recent years, they are still the highest in the industrialized world (United Nations 2011). One in six young women in the United States gives birth before she reaches her 20th birthday, and about one in five young mothers goes on to have a second child as a teenager (Martinez et al. 2011; Centers for Disease Control and Prevention 2013). Becoming a teen mother is linked with negative outcomes for both mother and child. For example, teen mothers are more likely than older mothers to experience preterm delivery, receive welfare, and have children with emotional and behavioral problems (Hoffman 2008). Outcomes are even worse when a teen mother has more than one child—especially if a second child comes soon after the first. Teen mothers who experience rapid repeat pregnancies (within 18 months of the prior birth) are less likely to receive prenatal care and more likely to experience a stillbirth, a preterm birth, or a child with a low birthweight (Conde-Agudelo et al. 2006). They are also less likely to stay in or complete school, work or maintain economic self-sufficiency, and have children that exhibit school readiness when older (Klerman 2004).

In 2010, health professionals affiliated with the OhioHealth Hospital System in Columbus, Ohio, developed the Teen Options to Prevent Pregnancy (T.O.P.P.) program (See Figure I.1) in response to high repeat teen birth rates and low family planning utilization rates among teens in the Columbus area (Centers for Disease Control and Prevention 2013; Ohio Department of Health 2007, 2010). The program is funded through the Personal Responsibility Education Innovative Strategies grant program within the Administration on Children, Youth, and Families, U.S. Department of Health and Human Services.

Figure I.1. Teen Options to Prevent Pregnancy (T.O.P.P.) Program—A Snapshot

Why	• T.O.P.P. aims to prevent rapid repeat pregnancy (a pregnancy that occurs within 18 months of a prior birth) and thereby promote healthy birth spacing.
Who	• Participants include 297 female adolescents ages 10 to 19, who are at least 28 weeks pregnant or up to 8 weeks postpartum, plan to deliver their babies if still pregnant, on or eligible for Medicaid, and patients within the OhioHealth Hospital System. • Staff include a program director, nurse educators (2.5 full-time equivalents), full-time licensed social worker, part-time physician, motivational interviewing expert consultant, and part-time program recruiting assistant. Full-time educators generally carry caseloads of 50 to 65 clients.

What	• 18 monthly one-on-one, telephone motivational interview sessions with a nurse educator, focusing on:
	  ○ Importance of birth spacing and preventing rapid repeat pregnancy
	  ○ Birth control methods (ranging from abstinence to long-acting reversible methods)
	  ○ Misconceptions that inhibit contraceptive use
	  ○ Future planning for achieving birth control and birth spacing goals
	• Access to contraception via transportation to clinics/hospitals, in-person visits from a T.O.P.P. nurse educator, or services at a T.O.P.P. clinic. Participants pay for contraception through Medicaid.
	• Access to a social worker to screen for risk factors (for example, domestic violence or depression) and provide service and resource referrals as needed.

Where	• Participants are recruited from five OhioHealth hospitals and seven clinics across seven counties in the Columbus, Ohio, area (Franklin, Delaware, Fairfield, Licking, Madison, Pickaway, and Union). • Motivational interviewing most often occurs over the phone. • Access to contraceptive services and resource referrals from social workers occur in hospitals/clinics (including the T.O.P.P. clinic), in homes, and in the van used for transportation to clinic/hospital visits.
When	• The T.O.P.P. program lasts 18 months for each participant. • Continual program enrollment occurs from October 2011 to January 2014.

T.O.P.P.'s goal is to reduce rapid repeat teen pregnancies and promote healthy birth spacing through telephone-based care coordination that encompasses motivational interviewing and access to family planning and other supportive services. The services are delivered by nurse educators and a program social worker over an 18-month period. The intervention draws on the Behavioral Model of Health Services Use, which suggests that contraceptive behavior will be changed by altering a woman's perception of her need for birth control and providing her easy access to it (Babitsch et al. 2012, Andersen 1995). The core component of T.O.P.P.—motivational interviewing—is delivered by trained nurse educators. Motivational interviewing is an individualized, client-driven, collaborative, and nonconfrontational form of communication aimed at promoting individual change (Barnet et al. 2009; Hettema et al. 2005). In the case of T.O.P.P., the individual change refers to the process of teen mothers learning about birth control options, selecting their own method of birth control, and making contraceptive decisions that promote healthy birth spacing and prevent unintended pregnancies.

In addition to motivational interviewing, T.O.P.P. provides personalized access to contraception (via transportation to clinics or hospitals, home and community visits, or a T.O.P.P. clinic) and referrals by a social worker to additional services, as needed. The program targets young women between the ages of 10 and 19 who are pregnant (at least 28 weeks into their pregnancy) or have just given birth (up to 8 weeks postpartum), and who are on Medicaid or eligible for it. Participants are recruited from five hospitals and seven clinics within the OhioHealth Hospital System, typically at the time of a prenatal appointment or postpartum visit.

T.O.P.P. is currently being evaluated as part of the Evaluation of Adolescent Pregnancy Prevention Approaches (PPA) (See Figure I.2). PPA is a national evaluation, funded by the Office of Adolescent Health within the U.S. Department of Health and Human Services, to study the effectiveness of six teen pregnancy prevention approaches. Two PPA evaluation sites, including T.O.P.P., are focusing on reducing rapid repeat teen births. The PPA evaluation, based on random assignment experiments, is intended to provide rigorous evidence about program impacts, document program implementation, and generate insights about the successes and challenges of delivering innovative teen pregnancy prevention programs.

Figure I.2. PPA Evaluation of T.O.P.P.—A Snapshot

- T.O.P.P. is being evaluated through the national multiyear Evaluation of Adolescent Pregnancy Prevention Approaches (PPA); the aim of PPA is to assess the effectiveness of six teen pregnancy prevention programs.
- The PPA evaluation is funded by the Office of Adolescent Health, U.S. Department of Health and Human Services; the evaluation is being conducted by Mathematica Policy Research with Child Trends and Twin Peaks Partners, LLC.
- T.O.P.P. program impacts will be assessed using an intent-to-treat randomized control trial design; impacts will be measured by follow-up surveys 6 months after enrollment, 18 months after enrollment (upon program completion), and 30 months after enrollment (12 months after program completion).
- This report focuses on T.O.P.P. implementation; the impact evaluation will be detailed in a later report.

This report addresses several questions about the development and implementation of T.O.P.P. (See Figure I.3). To address these questions, the PPA evaluation team drew on various data sources. The team conducted semi-structured interviews with T.O.P.P. staff and community partners about the history, development, and implementation of the program. Interviews were transcribed, and the research team used qualitative analysis software to conduct descriptive and inductive qualitative analyses. The data from program staff interviews were supplemented with participant responses to

open-ended questions about their program experiences and with quantitative T.O.P.P. program data on the number, content, and duration of participant contacts with T.O.P.P. staff. Appendix A presents additional details about these implementation study methods and data sources.

Figure I.3. Key Implementation Study Questions

- What is the T.O.P.P. program, how is it structured, and whom does it serve?
- What characterizes T.O.P.P.'s context and how are teen mothers recruited into the program?
- What is the frequency and intensity of clients' participation in T.O.P.P?
- How is T.O.P.P. delivering motivational interviewing, how are the nurse educators trained and supported, and what level of motivational interviewing do the teen mothers receive?
- What services does T.O.P.P. provide to facilitate contraceptive access and referrals for other services, and to what extent are these services used by the teen mothers?
- What lessons have been learned from this study of T.O.P.P., and how are they relevant for future program implementation?

This report examines the early implementation experiences of T.O.P.P to provide timely lessons to the field. Qualitative findings on program delivery reflect the first year and a half of implementation. Quantitative findings on participation and service use focus most on clients' first six months in the program. The quantitative data are based on a partial sample (38 percent) of the eventual T.O.P.P. research sample. The evaluation focuses on clients' initial six months in T.O.P.P. since relatively few clients had been enrolled more than six months at the time of analyses.

This page is left blank for double-sided printing.

II. THE T.O.P.P. FRAMEWORK: INDIVIDUALIZED FAMILY PLANNING SUPPORT FOR AT-RISK TEENS

The Teen Options to Prevent Pregnancy program was developed by OhioHealth, a faith-based nonprofit health care system, to address high rapid repeat teen births and low family planning utilization in the Columbus, Ohio, area. T.O.P.P. provides motivational interviewing, contraceptive access, and social service support over an 18-month period to help at-risk teen mothers develop and adhere to a birth control plan and to prevent rapid repeat pregnancies. T.O.P.P.'s individualized and accommodating approach is carried out by trained nurse educators through a process of telephone-based care coordination.

Telephone-based care coordination is the process through which trained nurse educators deliver and coordinate services for T.O.P.P. clients.

T.O.P.P.'s nurse educators deliver and coordinate participants' contraceptive education, care, and other supportive services using telephone-based education and follow-up. The educators are well suited for their role. All have a nursing background in obstetrics, gynecology, or maternal and child health and are trained to educate clients on the characteristics of different contraceptive options. The educators were recruited specifically for T.O.P.P., both within and outside of the OhioHealth system, based on their nursing experience and their expected readiness to learn and use motivational interviewing. Additionally, most had prior experience working with at-risk teens. Given their background, the educators are well positioned to answer common questions about pregnancy, childbirth, and postpartum care, and these serve as natural topics around which to interact and develop rapport with T.O.P.P.'s teen mothers.

T.O.P.P. expects that the nurse educators will conduct a telephone call with participants once per month, on average, for 18 months. The program expects that the frequency of calls may be greater during initial periods of educating clients on different forms of birth control and helping them develop a birth control plan and acquire contraception. There is no expected length for the calls. Rather, since they are intended to be "client-driven," they are expected to vary in length based on clients' interests, needs, and the general flow of the conversation. To facilitate initial and continued contraceptive use, the nurse educators make follow-up telephone calls and are also encouraged to conduct home or other in-person visits, if possible, at least one per participant during their time in the program. Ideally, such a visit would be conducted within the first few months after a client's enrollment in T.O.P.P. Although T.O.P.P.'s telephone-based care coordination is designed as an individualized, loosely structured process, a set of program forms and strategies guides the nurse educators' interactions with clients. These are discussed in Chapter V and provided in Appendix B.

During the nurse educators' contacts with participants, they use motivational interviewing, described below, as a style of communication to educate clients about family planning and the value of preventing rapid repeat pregnancies. Educators strive to gently steer the conversation in a manner that educates participants about the health benefits of delaying subsequent pregnancy, provides medically-accurate information on various birth control methods (including abstinence), addresses any misconceptions inhibiting contraceptive use, and helps the teens develop a birth control plan. Follow-up telephone calls provide an opportunity to provide further information on contraceptives, help participants identify and schedule appointments with their OB/GYN or other medical provider, debrief about the participants' appointments, and problem-solve barriers to consistent and continued birth control use. The calls also provide a forum for the educators to

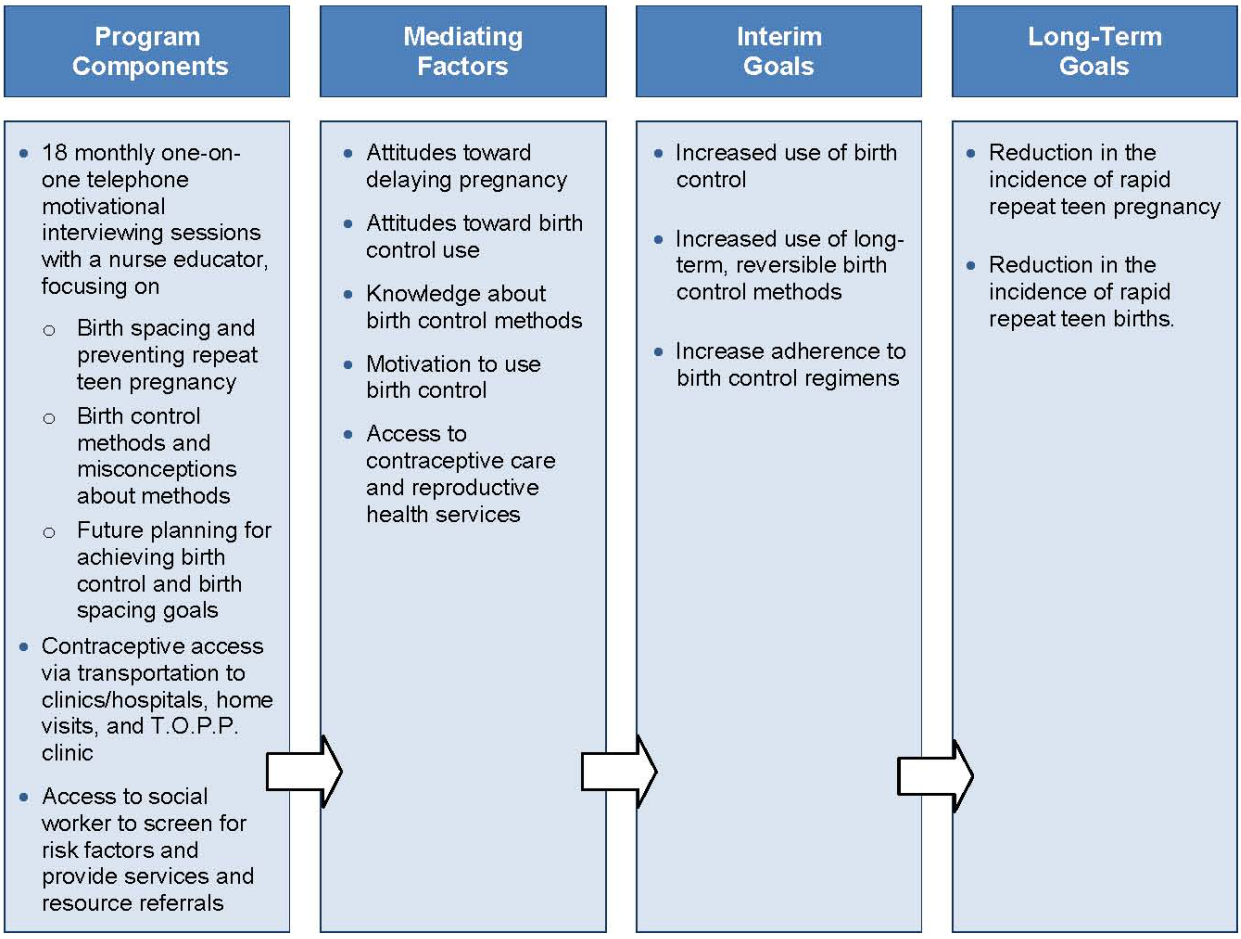
address supportive service needs participants may face, and refer them to the T.O.P.P. social worker for additional support, as needed.

T.O.P.P.'s individualized services over an extended period exceed the usual standard of OB/GYN care, which typically involves periodic, face-to-face follow-up appointments with brief contraceptive education. T.O.P.P.'s services, which supplement usual OB/GYN care provided to participants, feature substantially more education, individualization, and follow-up support than young teen mothers in Columbus typically receive.

T.O.P.P. builds on the premise that teen mothers will be better able to avoid rapid repeat pregnancy if their motivation to use contraception is high and access to it is easy.

T.O.P.P.'s telephone-based care coordination encompasses three primary components: motivational interviewing, access to contraception, and assessment and referrals by a social worker (See Figure II.1). These components are designed to increase participants' consistent use of contraception which, in turn, will lead to the program's desired goals of promoting healthy birth spacing and reducing rapid repeat teen births.

Figure II.1. T.O.P.P. Logic Model



The core component of the T.O.P.P. program is motivational interviewing. Motivational interviewing is based on the Behavioral Model of Health Services Use (Andersen 1995). The premise of this model is that contraceptive behavior can be changed by empowering a young woman to make her own informed choices about birth control and pregnancy, and providing her easy access to birth control. Motivational interviewing is an individualized, client-driven, collaborative form of communication designed to promote individual change (See Figure II.2; Barnet et al. 2009; Hettema et al. 2005; Rollnick and Miller 2002). Research has shown that motivational interviewing can increase adherence to health care regimens, including decreasing substance use and improving diet and exercise (Rollnick and Miller 2002). Research has also shown that the use of motivational interviewing contributes to increased contraceptive use among college-age women at risk for alcohol-exposed pregnancies (Floyd et al. 2007).

Figure II.2. Motivational Interviewing

Motivational interviewing focuses on a person's goals and motivation to change behavior, particularly stressing the relationship between current behaviors and future goals. Motivational interviewing is collaborative and goal oriented. It involves communication in an atmosphere of acceptance and compassion, with particular attention to the language of *change*. It is designed to strengthen personal motivation for and commitment to a specific goal by exploring an individual's own reasons for change.

Motivational interviewing techniques include the following:

- Sharing a concern about discrepancies or disconnects in what young mothers might say (for example, they want to avoid another pregnancy but don't want to use contraception)
- Identifying a desire for change
- Reflecting young mothers' thoughts and comments
- With permission, providing education
- Summarizing young mothers' self-identified goals

Within the T.O.P.P. intervention, nurse educators use motivational interviewing to

- Elicit information about past experiences with and beliefs about contraception and pregnancy,
- Encourage the participant to examine her own knowledge base about contraception,
- Provide individualized education about contraceptive methods based on participants' preferences and interests, and
- Help guide the participant toward birth control methods that she can use consistently.

Motivational interviewing involves nonconfrontational communication, which in the T.O.P.P. context means that staff may point out ambivalent or contradictory statements about birth control and pregnancy; reinforce medically-accurate information; reframe thoughts into opportunities for change; reinforce actions toward positive change; reflect, review, and reinforce thoughts, comments, and "change talk" about positive intention and plans, such as wanting to start using birth control; and summarize teen mothers' self-identified goals (Barnet et al. 2009).

In T.O.P.P., motivational interviewing typically takes place by telephone. Although motivational interviewing is typically implemented in person, the rationale for implementing motivational interviewing over the phone in this program was that phones provide a more reliable way to reach teen mothers, who are transient, have difficulty scheduling and keeping in-person meetings and appointments, and may not have reliable or easy-to-access transportation. The downside of phone conversations, however, is that it can be relatively more difficult to build a strong rapport and connection with participants. In-person visits are beneficial in helping to establish rapport and strengthen the connection with participants.

T.O.P.P. also emphasizes access to contraception. T.O.P.P. improves access to contraception by offering a T.O.P.P. clinic, transportation services, and/or in-person discussion about and distribution of contraceptives. The theory is that making services accessible to young mothers will increase the likelihood they will use contraception. The T.O.P.P. clinic, originally a mobile clinic, was a multiroom tractor trailer equipped to provide all prenatal and neonatal services. The clinic parked in community locations, such as library parking lots, and served women who were pregnant or had recently given birth. The clinic was originally envisioned as an important way that T.O.P.P. would improve access to contraception (although, as described below, this did not turn out to be the primary way in which contraceptive access was provided). Moreover, early in the implementation period, the program stopped using the mobile clinic in favor of a stationary clinic in the T.O.P.P. offices, as discussed in detail later in this report. T.O.P.P. provides van transportation to and from clinic appointments for clients who either do not have their own transportation or have difficulty using publicly available transportation options.

T.O.P.P. also provides contraceptive services during individual, in-person visits with the teen mothers. T.O.P.P. staff bring to these visits a "contraceptive bag" containing real birth control options that the girls can see and touch. Participants are also offered complimentary "goody bags" that include condoms.

T.O.P.P. provides access to a social worker. T.O.P.P. provides participants access to a social worker who, based on initial psychosocial assessments and case management, can refer participants to services. The theory behind these service referrals is that addressing other barriers that teen mothers face, such as poverty and homelessness, will ultimately help them adhere to a birth control regimen.

T.O.P.P. serves a racially diverse group of teens with a history of risky sexual behavior.

At the time of enrollment into T.O.P.P., the average participant was 18 years old, with nearly half of participants identifying as white (non-Hispanic) and another half as black (non-Hispanic) (Table II.1). More than half were still enrolled in middle or high school, virtually all reported speaking English at home, and nearly half lived with their mothers.

T.O.P.P. participants reported high levels of sexual activity at the time of their enrollment in T.O.P.P. On average, they reported having had more than five sexual partners in their lifetime. In the three months before they became pregnant they reported 22 instances of sexual intercourse, on average. During four-fifths (81 percent) of those instances of sexual intercourse, participants reported not being protected by condoms, hormonal methods of contraception, or intrauterine devices.

Participant's future intentions about contraception contrasted sharply with their past behavior. Among those participants who intended to have sexual intercourse in the upcoming year, most reported at the time of enrollment that they intended to use birth control when they engaged in sexual intercourse. In addition, over four-fifths reported that they intended for their partner to use a condom, and almost all reported that they intended to use a hormonal birth control method (or nonhormonal intrauterine device) themselves.

Table II.1. Baseline Sample Characteristics for T.O.P.P. Participants

	Mean or Percentage of T.O.P.P. Participants
Demographic and Background Characteristics	
Age in Years	
15	5.6
16	8.6
17	12.2
18	28.9
19	44.6
Race	
White non-Hispanic	45.4
Black non-Hispanic	46.9
Hispanic	5.2
American Indian or Alaska Native	1.6
Asian	1.0
Language Spoken at Home	
Spanish	1.5
English	98.5
Highest Grade Completed	
7th–8th grade	3.6
9th–11th grade	49.0
High school	34.2
GED	4.6
Postsecondary	6.6
Other	2.0
Live in Home with . . . (not mutually exclusive)	
Mother	44.7
Stepmother	5.9
Father	16.2
Stepfather	7.1
Grandmother(s)	10.7
Grandfather(s)	4.6
Siblings	44.2
Father of baby	29.4
Parents of baby's father	7.1
Other relatives	11.2
Nonrelatives	8.1
Live alone	5.6
Past Sexual Activity	
Number of sexual partners (ever; mean)	5.3
Number of times had sexual intercourse in three months prior to pregnancy (mean)	21.5
Number of times had sexual intercourse in three months prior to pregnancy without effective birth control method, among those who had sexual intercourse (mean)	17.4
Had sexually transmitted disease in past 12 months	18.2
Intentions for Future Sexual Activity	
Intention to have sexual intercourse in the next year	83.6
Intention for partner to use condoms, among those who intend to have sexual intercourse in the next year	81.0
Intention to use a hormonal birth control method (or nonhormonal intrauterine device) in the next year, among those who intend to have sexual intercourse in the next year	96.7
Sample Size	**197**

Source: Youth surveys administered by the PPA evaluation team at the time of program enrollment.

Note: Sample size for each question varies from 153 to 197, based on logical skips and item nonresponse.

This page is left blank for double-sided printing.

III. THE T.O.P.P. CONTEXT: BUILDING SUPPORT, RECRUITING PARTICIPANTS, AND MAKING ADJUSTMENTS

Although the OhioHealth staff perceived a strong need for the T.O.P.P. program model, implementing it required substantial efforts to win over and balance the interests and concerns of local stakeholders, attract the interest of and recruit its intended participants, and adjust the program design based on early experience.

Gaps in knowledge about birth control, health and socio-emotional needs, and logistical challenges may prevent teen mothers from accessing family planning services.

The T.O.P.P. program addresses high teen birth rates, repeat teen births, and low service utilization rates throughout seven counties in the Columbus metropolitan area. Local statistics demonstrate the need for T.O.P.P. Franklin County, where most OhioHealth clinics and hospitals are located, has a teen birth rate higher than both state and national averages. In 2008, the birth rate for teens aged 18 to 19 in Franklin County was 79.2 (per 1,000 females), compared with 73.7 for Ohio and 70.7 for the United States (Nationwide Children's Hospital 2010). The county average, however, masks significant racial and ethnic disparities in Franklin County. In 2008, the birth rates for black (145.6) and Hispanic (205.7) teens aged 18 to 19 were two to four times higher than the rate for non-Hispanic whites (53.2). In addition, one-fifth (21 percent) of all births to teens aged 15 to 19 in Columbus are repeat teen births, which is higher than both Ohio and the nation (18 percent and 19 percent, respectively) (Centers for Disease Control and Prevention 2013; Child Trends 2011). Further, the Columbus area has a high proportion of young mothers on Medicaid who do not receive postpartum care (Ohio Department of Health 2007).[1]

Interviews with key informants and a review of local services suggest that an ample supply of clinics and health service providers is available in the Columbus area. Along with family planning services provided through local clinics and hospitals, various supportive services and programs for pregnant and parenting teens exist, among them the Center for Healthy Families (a nonprofit organization that provides wraparound services), Caring for Two (a federally funded Healthy Start program), Moms 2B (a nutrition and support group), and social services through other programs and clinics.

Low utilization of family planning services by teen mothers reflects the low-income, disadvantaged background of the young women targeted by the program. Many staff and stakeholders interviewed reflected on the general lack of knowledge among the teens in the program with regard to birth control, as well as their common challenges related to transportation (specifically, many do not have cars, driver's licenses, or the knowledge to access available public transportation). Staff also noted that the population served by T.O.P.P. has risk factors that act as additional barriers to accessing available services. Specifically, although the teen mothers are resilient, many face problems with substance use, depression, interpersonal conflict, parental conflict,

[1] Data collected by the Ohio Department of Health (2007) show that only 39 percent of adolescents on Medicaid received one or more postpartum visits following a delivery.

poor nutrition, and lack of food and basic supplies such as diapers. Staff also remarked on the transient nature of this population and on their general difficulties becoming self-sufficient.

Despite indications that a program like this was needed, gaining community support for T.O.P.P. was challenging at first.

Programs addressing the issues of contraceptive access and birth spacing can be sensitive and raise concerns among local community members and stakeholders. In the case of T.O.P.P., for example, early concerns arose among community members about the relative emphasis of the program on contraceptive use versus abstinence. Some staff at the clinics and hospitals from which T.O.P.P. participants would be recruited also raised questions about the potential value T.O.P.P. added to the programs and services already available in the community. Some members of the community and local government questioned whether the program would be perceived as disproportionately targeting racial and ethnic minority women or encouraging teen sexual activity through the provision of contraceptive access. One community stakeholder noted,

> *"I don't think a lot of people realize how high the rate of teen pregnancy is. They think we could be condoning teen pregnancy if we have these programs."*

To address these concerns, T.O.P.P. staff invested considerable energy in educating stakeholders and the community about the T.O.P.P. program model and goals. During T.O.P.P.'s planning phases, program designers and staff conducted presentations and held conversations with various OhioHealth and community stakeholders to foster understanding of the program, alleviate potential concerns, and build support for the program. They emphasized the program's aim of promoting healthy birth spacing and made efforts to avoid messaging that might be confused with encouraging teen pregnancy. They reassured administrators that the program included information on abstinence as a strategy for achieving healthy birth spacing. Additionally, they took the time to visit participating hospitals and clinics in person and provide them with informational pamphlets and presentations on the program. Most of this information-sharing occurred during the program design and early implementation periods. However, T.O.P.P. staff continued to nurture their relationships with stakeholders, particularly staff from participating hospital and clinics.

T.O.P.P. staff also had to address concerns about the program's potential burden on clinic and hospital staff. T.O.P.P. relies on participating clinics and hospitals to refer teen mothers to the program. T.O.P.P. staff modeled the energy and commitment they expected of clinic and hospital staff. As one T.O.P.P. staff member reflected:

> *"At first, people were like, 'Oh, great, another thing I have to do.' But I tried to model an open acceptance that this is a good thing, and I said I know this is additional work and you have to think about it . . . but [T.O.P.P. offers] another person to get involved in the care. It's sort of about getting them to buy in. They also had to get to know the T.O.P.P. staff and learn to trust us."*

T.O.P.P. staff also were persistent and patient in drawing on existing relationships with staff in these other institutions and in developing new relationships to build trust and buy-in. They found that designating one primary contact at each clinic/hospital site made this relationship building more efficient.

Recruiting young mothers shortly before or after their delivery required the focused effort of experienced nursing staff.

Recruitment of program participants from OhioHealth clinics and hospitals occurs in two key steps. First, clinic and hospital staff identify young women who are eligible for the program using OhioHealth's electronic scheduling system. They provide T.O.P.P. staff with a daily listing of eligible patients and their next appointment, including prenatal and postnatal appointments at the clinics as well as postpartum appointments in the maternity wards at the hospitals. T.O.P.P. staff then know when to be at the clinic or hospital. Second, when meeting with the eligible young women at their appointments, the clinic or hospital staff ask the women if they are interested in hearing about the T.O.P.P. program and the study. If so, T.O.P.P. staff meet with the young women individually, tell them about the program, and seek parental permission and the teen's assent if the young women are under age 18.

T.O.P.P. staff reported that teen mothers are for the most part interested in what they could learn from the program and how it might help them improve their circumstances. One staff member explained, "Most say 'I want a better life for my baby . . . I want a better life for myself.'" T.O.P.P. staff noted favorable outcomes when recruiting teen mothers under the age of 18 during their prenatal appointments. Teenagers are typically accompanied by a parent during these appointments, which increases the likelihood of getting parental permission for T.O.P.P. participation, if it is needed.

Having caring, knowledgeable, invested, and persistent T.O.P.P. staff who are trained as postpartum nurses has been particularly important for gaining access to and recruiting potential participants. The nurses are well equipped to answer common questions about pregnancy, childbirth, and postpartum care, giving them an easy way to relate to and connect with the potential participants. As one stakeholder noted, "To promote buy-in, the main thing was the T.O.P.P. staff. . . .They are very accommodating. and understand the value of (the program)."

Yet T.O.P.P. staff also noted recruitment challenges. Fitting the recruitment interaction into the clinic setting was challenging. As one staff member summarized, "The recruitment process can take a while, and we ask a lot of personal questions. If it's in a hospital, it's a busy time for the young mother with the lactation consultant, visitors, discharge staff. . . . It can take a while to recruit . . . Sometimes they're not in the room or are busy with other things." In addition, some pregnant and parenting teens were receptive, but a parent could not always be located to provide permission when it was needed. In a few other cases, teens did not respond positively to the program offer because they looked positively on the idea of getting pregnant again soon.

Despite these challenges, T.O.P.P. staff have been successful in recruiting. At roughly the midpoint of the planned sample enrollment period, they had enrolled more than half of their target number of participants. Overall, several factors have been important for the success of the recruiting effort. First, T.O.P.P. staff were well-trained and worked hard to build support for the program among clinic and hospital staff, helping them "buy-in" to T.O.P.P. and understand its value. Second, the process of using OhioHealth's electronic scheduling system to identify eligible teens generally ran smoothly and efficiently. Third, the appointment of one primary T.O.P.P. contact at each of the study hospitals and clinics helped to maintain ongoing support for T.O.P.P. and facilitate an efficient and timely recruiting process.

Early experience led T.O.P.P. staff to adjust plans for the mobile clinic because of ease-of-use issues, the "patient ownership" factor, and costs.

T.O.P.P. staff originally planned to provide access to contraceptives mainly through a mobile clinic. However, the mobile clinic did not become the main way to provide teen mothers with access to contraceptives for three reasons.

First, locations for parking the mobile clinic were in short supply. The staff considered locations easily accessible to teens, such as school parking lots, but they were prohibited from providing contraception on school grounds, so that option was of little use. Staff considered other public locations, such as libraries, but found that clinics and hospitals were available in these areas. Moreover, T.O.P.P. teens are widely dispersed throughout the Columbus area, so there are few, if any, locations the mobile clinic could park that would be in close proximity to a concentration of potential participants.

Second, program staff realized that serving young mothers in the mobile clinic setting would in effect take them away from their original clinic or health care provider. Staff came to see that they needed to abide by "patient ownership." Many of the OhioHealth hospitals and clinics from which T.O.P.P. recruits are teaching hospitals (or clinics affiliated with teaching hospitals), and T.O.P.P. staff realized that serving young women in the mobile clinic could not only disrupt their ongoing care relationship with a clinic or provider but also take patient contact hours away from doctors in training. Ultimately, staff decided that the young women who were recruited from clinics and hospitals would not be served by the mobile clinic if they already had a physician. Although most T.O.P.P. participants do have an assigned physician (on account of being on Medicaid or Medicaid-eligible), some do not. Overall, the mobile clinic has served only one-tenth (9 percent) of T.O.P.P. participants.

Third, operating the mobile clinic turned out to be difficult and expensive, especially considering the limited number of T.O.P.P. patients who accessed it. It required a professional driver, adding to its expense.

Although the original program design included the mobile clinic as a core strategy to improve access to contraception, the program has actually pursued this objective more successfully by using a program van to provide transportation to and from clinics or hospitals. In addition, the program replaced the mobile clinic with a small stationary clinic in the T.O.P.P. offices where the T.O.P.P. physician serves clients who are not already affiliated with another physician.

IV. IMPLEMENTATION HIGHLIGHTS: THE FREQUENCY AND INTENSITY OF T.O.P.P'S INDIVIDUALIZED SERVICES

To reduce rapid repeat pregnancies, T.O.P.P. provides a mix of flexible and individualized services to support pregnant and parenting teen mothers over an 18-month period. The extended follow-up period allows for check-ins to promote clients' consistent adherence to their birth control plan and address ongoing questions and needs. Our examination of T.O.P.P. implementation includes a review of the specific types of services received by participants. However, since enrollment into T.O.P.P. occurs on a rolling basis, so does data collection. A complete analysis of client experiences in T.O.P.P. will be possible after all the young mothers have been enrolled for the full 18-month period. In the meantime, this report provides a preliminary look by examining the first 6 months in T.O.P.P. for the first third (38 percent) of the evaluation sample.

A qualitative assessment of implementation suggests that T.O.P.P. is delivered by dedicated and hardworking staff and is well received by participants. Participant responses to open-ended survey questions during the early phases of implementation suggest that T.O.P.P. is a meaningful strategy for increasing both motivation to use contraception and access to it (See Figure IV.1).

Figure IV.1. Examples of Participant Responses About T.O.P.P.

- "Being motivated to go on with my life and to be on some type of birth control so I won't get pregnant again."
- "Realizing that I don't want to have another kid and the fact that I am already a young mother makes it easier for me to carry out my plan."
- "The T.O.P.P. program has made it easier for me to carry out my plan because it has helped educate me."
- "It's a good program. [It] helps you with birth control and safe sex. You always have someone on your back. It's caring!"

During the first six months in T.O.P.P., the average client received eight service contacts—including both motivational interviewing calls and other service contacts—that lasted a total of 2 hours and 40 minutes.

A summary of all client contacts with T.O.P.P. staff shows that the average client received a total of eight service contacts during her first six months in the program, or between one and two contacts per month (Table IV.1). On average, nearly five of these contacts were motivational interviewing calls, which is a little lower than the monthly contacts intended by the program model. Depending on individual clients' needs and interests, the remaining three contacts typically comprised the assessment and screening from the T.O.P.P. social worker along with a service referral, an in-person visit, and/or a van ride. The specific types of services received by clients are examined in more detail in the following two chapters. The overall intensity of the T.O.P.P. intervention (including all motivational interviewing calls and other contacts and services) amounted to a total of about two hours and 40 minutes during clients' first six months (or 26 minutes per month, on average) (Table IV.1).

Preliminary data suggest that the first six months is the most intensive period, as staff make initial contacts with the young women and assist them in selecting and adhering to a birth control plan. After that, the number of contacts and the time commitment begin to decline. Among the sample of clients enrolled at least 9 months, the average client had received a total of 10.4 contacts (1.2 per month); and among clients enrolled at least 12 months, the average client had

received 12.7 contacts (1.1 per month) (not shown).[2] In terms of contact time, the average client participated for 3 hours, 10 minutes over the first 9 months, and 3 hours, 32 minutes over the first 12 months (or an average of 21 minutes per month and 18 per minutes per month, respectively). Future analyses of participation data for the full 18-month T.O.P.P. service period will allow a more complete understanding of clients' experiences in T.O.P.P.

Table IV.1. Summary of Frequency and Intensity of All T.O.P.P. Contacts During the First Six Months

T.O.P.P. Contacts	Number of Contacts, on Average	Time (in Minutes), on Average
All T.O.P.P. contacts	8.3 contacts (1.4 per month)	157 minutes (26 per month)
Motivational interviewing calls	4.7 calls (0.8 per month)	63 minutes (11 per month)
Sample Size	**112**	

Source: Program participation data collected through the T.O.P.P. information system.

Note: Includes sample members who had been enrolled for at least six months through February 12, 2013.

The frequency and intensity of the services provided through T.O.P.P. appear to vary based on clients' level of need.

Clients' level of contact with T.O.P.P. varied during their first six months in the program. Two-thirds (67 percent) of clients participated in at least six contacts, or one per month, during their first six months in the program (not shown). Although some received only a few contacts, others received a more substantial level of support through T.O.P.P. On one end, 18 percent participated in 3 or fewer contacts during their first six months; at the other end, 19 percent participated in 12 or more contacts, or at least 2 per month. The difference in service level depends on a combination of clients' needs, their interest in receiving services, and educators' success in making contact with them. It also suggests that there is no standard "dosage" for a program intervention that is centered on motivational interviewing. The dosage that is appropriate and feasible may vary based on the needs and accessibility of the teen mothers.

Although T.O.P.P. provides a "modest touch," it aims to do so in a targeted manner over an extended period of 18 months.

Overall, the time investment in T.O.P.P. for individual program participants is modest compared with other, more prescribed, curriculum-based interventions provided to at-risk youth. Several other intervention sites from the national PPA evaluation offer points of comparison (Smith and Colman 2012). For example, Aim 4 Teen Moms, another program in the PPA

[2] The data for clients enrolled at least 6 months is 112 clients. For clients enrolled at least 9 months, the sample size is 82 clients; and for clients enrolled at least 12 months, the sample size is 45 clients. The 12-month data should be used with particular caution, given the small sample size.

evaluation that is being implemented in Los Angeles, California, to a similar target group of pregnant and parenting teens, provides a 10-hour intervention over 12 weeks (7 hours in an individualized setting and 3 hours in a group setting). Other examples in the PPA evaluation include Power Through Choices, which provides a 15-hour intervention over five weeks to small groups of youth in group home care facilities in Oklahoma, California, and Maryland, and Gen.M, which provides a 20-hour intervention during a single week to small groups of youth in the Summer Youth Employment Program in Austin, Texas.

Despite its relatively modest time investment for each client, T.O.P.P. provides a targeted, flexible, and individualized approach for supporting pregnant and parenting teens and meeting specific needs of the teen mothers when they arise. Unlike the other interventions cited above, the entirety of T.O.P.P. is provided to clients individually without a prescribed curriculum, which allows the nurse educators to tailor support and services to clients' unique needs and interests. Although contacts appear to taper off over time after teens develop a birth control plan, the 18-month follow-up period allows for periodic check-ins to help promote consistent adherence to the plan and ensure that any ongoing questions and service needs can be addressed.

This page is left blank for double-sided printing.

V. MOTIVATIONAL INTERVIEWING IN PHONE CONVERSATIONS

The foundation of T.O.P.P. is motivational interviewing. Experience in the motivational interviewing field has demonstrated that this technique takes time and careful supervision to learn. The personal skills and training that staff bring to the job can be an important asset as they learn the method, which at its core is about relationship building, communication, and empowerment. Motivational interviewing conversations within the T.O.P.P. program appear to have been implemented at close to the expected frequency of once per month, and they covered a range of topics; specifically, they most often covered birth control planning topics, but conversations also covered various personal, educational, and employment-related topics.

Motivational interviewing is a technique that must be learned and supported through ongoing training and supervision.

The T.O.P.P. program relies on ongoing staff training, expert telephone call reviews, and the use of monitoring tools to maximize fidelity to motivational interviewing methods.[3] The nurses and social workers who deliver motivational interviewing for T.O.P.P. received extensive training related to this style of communication. Staff attended an initial two-day training retreat focused on motivational interviewing techniques, led by the program's motivational interviewing expert consultant. After that, staff met weekly with the expert during the first program year and have continued to do so every other week. In these ongoing technical assistance sessions, they receive ongoing training, review recent motivational interviewing interactions, and discuss the quality of those interactions. The sessions also provide an opportunity to discuss ways to handle the challenges staff face in conducting motivational interviewing. Most staff were unfamiliar with motivational interviewing at the outset of program implementation and found these ongoing sessions very helpful.

The motivational interviewing training and ongoing technical assistance, as well as fidelity monitoring and assessment of motivational interviewing interactions, are facilitated by recordings of the interactions. Every call is recorded, and the motivational interviewing expert listens to and codes a random sample of the calls using established motivational interviewing monitoring tools. Although there is no "script" for motivational interviewing interactions, there is a "toolbox" of techniques. For example, motivational interviewing should include more open-ended than closed-ended questions. It should not include confrontational statements, but rather reflections and affirmations of what the teen mother has said. Figure V.1 provides examples of motivational interviewing questions and statements, based on OARS techniques: Open-ended questions, Affirmations, Reflective listening, and Summaries (SAMHSA 2013).

[3] A systematic examination of fidelity to the motivational interviewing technique, based on a review of the audio-recorded interviews, will be conducted by the local evaluator from Nationwide Children's Hospital under contract to OhioHealth.

By design, motivational interviewing is individualized and does not use a scripted protocol; instead, a semi-structured process guides the nurse educators' interactions with the teen mothers.

Nurse educators use a set of program strategies and forms to guide and support their interactions with the T.O.P.P. teen mothers. (These documents are displayed in Appendix B). At the heart of this process is the *Nurse Educator Flow Sheet.* The flow sheet provides a semi-structured protocol that guides the initial and ongoing conversation between educators and participants, and provides key discussion points, conversation starters, and prompts for birth control reminders. The flow sheet also provides categories and space for the educators to document their interactions with clients.

Also fundamental to the process is T.O.P.P.'s *Fidelity Toolkit.* After each contact with the teen mothers, educators document in the T.O.P.P. SharePoint Information System whether the activities and conditions outlined in the toolkit were covered as part of the interaction. These activities and conditions include: program and study orientation, goal setting, "stages of change" action planning and plan maintenance, use of motivational interviewing techniques, transportation services, and needs assessment. The *Fidelity Toolkit* also provides important input into the ongoing fidelity monitoring review of audio-recorded interactions, noted above, that is conducted by the motivational interviewing expert consultant.

Various worksheets supplement T.O.P.P.'s flow sheet and toolkit and can be used by educators, as needed, to stimulate their conversations with participants. Most notably, the *Worksheet for Change* provides a tool for assisting clients with the goal-setting and action-planning processes, and the *Self-Evaluation Ruler* helps clients explore their feelings toward birth control and pregnancy.

Figure V.1. Sample Motivational Interviewing Questions and Statements (from Rollnick and Miller 2002)

Sample Open Questions
- How can I help you with ?
- Help me understand ?
- How would you like things to be different?
- What are the good things about ___ and what are the less good things about it?
- When would you be most likely to___?
- What do you think you will lose if you give up ___?
- What have you tried before to make a change?
- What do you want to do next?

Sample Affirmations
- I appreciate that you are willing to talk with me today.
- You are clearly a very resourceful person.
- You handled yourself really well in that situation.
- That's a good suggestion.
- If I were in your shoes, I don't know if I could have managed nearly so well.
- I've enjoyed talking with you today.

Sample Reflective Listening Statements
- So you feel . . .
- It sounds like you . . .
- You're wondering if . . .

Sample Summary Statements
- Let me see if I understand so far . . .
- Here is what I've heard. Tell me if I've missed anything.
- Did I miss anything?
- Anything you want to add or correct?

Practitioners' professional backgrounds present both a strength and a challenge to implementing motivational interviewing.

T.O.P.P. staff came from professional helping backgrounds (nursing or social work) and are driven by an interest in helping the young mothers they serve. Yet these professional backgrounds to some extent presented a challenge; some staff found it difficult not to fall into their role as a health professional and be directive—which is antithetical to motivational interviewing techniques. At the same time, they acknowledged that their medical knowledge (particularly obstetrics, gynecology, or maternal and child health training) came in handy when participants asked about contraception or reproductive health.

Motivational interviewing techniques focus on relationship building, communication, and empowerment.

Underlying the motivational interviewing technique is the simple fact that it gives the teen mothers someone to talk to. T.O.P.P. staff note that just having someone who will call every month is new to many of the teen mothers they serve, given that many of them have few people who are a constant presence in their lives, and that many of them feel isolated as a teen mother. One staff person noted, "Some of them don't have anyone who cares about them, and they like that interaction. . . . I think that's the key—the communication. You can't just say, 'Here's your birth control, goodbye.'" Participants valued this connection, most often citing their conversations with nurse educators and the attention they receive from them as the best feature of the T.O.P.P. program (See Figure V.2).

Figure V.2. Participant Responses to Motivational Interviewing

When asked what their favorite thing about the T.O.P.P. program was, participants responded with the following:

- "The fact that the nurses called to make sure that I was okay."
- "That you have someone call and check up on you, and they're interested in your life."
- "The fact that they check up on you every month . . . they were willing to help."
- "I loved [T.O.P.P.], I get a lot of calls, asks how I'm doing—I really like that somebody is checking up."

T.O.P.P. staff emphasized the importance of relationship building that occurs through motivational interviewing. One staff member remarked that "establishing rapport is huge. . . . Let them know you are there, you do care, you will not be a burden on them." Likewise, staff say that being a positive presence is key; they strive to refrain from value judgments: "We do not judge them on what they do or do not do or their lifestyle." The teen mothers also remarked that they appreciated having a nonjudgmental presence in their lives; one noted that the conversations with nurse educators helped her to understand that "it's okay to become a mom, but there are precautions you can take so there won't be any more unplanned [births]." They also appreciated having someone with whom they could talk about sensitive topics surrounding sexual intercourse and birth control; as one participant noted, "I had somebody to talk to about sexual things and it not be awkward."

Another important aspect of motivational interviewing is that it empowers young mothers to direct conversations and make their own decisions about contraception. This is particularly relevant for teen mothers, who may feel powerless, helpless, or even marginalized by their circumstances. As one staff member remarked, "One of the reasons why motivational

interviewing is becoming more notable with adolescents is that you're giving them more control. . . . You're asking their permission to talk to them about these things. It's a very respectful way of interacting with someone." Another noted that this was especially important when it comes to decisions about contraception: "Motivational interviewing is very important. . . . If it's the girls' idea, and they can see that it comes from them, then they are more likely to comply with it." Similarly, motivational interviewing empowers teen mothers and helps build their problem-solving skills so they can recognize the disconnects between what they say or do and what they actually want. For example, a teen mother might note that she does not want to get pregnant again but also report missing her appointment for contraceptive services. One participant remarked that T.O.P.P. nurse educators were most helpful by allowing her to grow by "challenging [me] with questions that I never thought about before."

The content and frequency of motivational interviewing is not 'one size fits all,' but conversations typically cover birth control planning.

In the first six months of program participation, nearly all teen mothers in T.O.P.P. participated in at least one motivational interviewing telephone call, and many participated in regular, monthly calls, as planned (See Figure V.3). Contacts lasted 14 minutes, on average, with some as little as 3 minutes and others as long as 90 minutes. As intended, the duration of the calls varied depending on client needs, interests, and the general flow of the conversation. The sum of all motivational interviewing telephone contacts during the average client's first six months in T.O.P.P. was about an hour (63 minutes) in duration. This time does not count the time nurse educators spend attempting to reach participants on the phone. For every telephone call, nurses estimate that they typically make three or four call attempts before reaching a participant. Some clients also participated in motivational interviewing interactions with staff when they received a home visit or van ride to a clinic appointment; these types of contacts and their prevalence are described in the next section.

Figure V.3. Intensity and Duration of Motivational Interviewing Calls

During participants' first six months in T.O.P.P.:

- Ninety-four percent participated in a motivational interviewing call.
- The average client participated in 4.7 motivational interviewing calls, or close to 1 per month.
- Each motivational interviewing call lasted an average of 14 minutes.

Examining preliminary data on clients' first 12 months in T.O.P.P. show that the frequency of the motivational interviewing calls to individual clients declined over time, falling short of the program goal of one call per month on average. The young mothers' first 3 months in T.O.P.P. appeared to be their most active time in the program as the nurse educators made initial contact with them. The average client received 3.2 calls, or one per month, during her first 3 months. After that, the frequency declined, with 4.7 calls received by the average client during her first 6 months, 6.1 calls during her first 9 months, and 8.2 during her first 12 months. The declining frequency of motivational interviewing calls is not wholly unexpected because some clients seemed to need less support over time once they established a birth control plan during their

early months in T.O.P.P.[4] In addition, it generally became more difficult over time to keep in touch with the teen mothers, because many of them moved during their time in the program.

Although nearly all T.O.P.P. participants received motivational interviewing interactions through the program, not all interactions looked alike. They covered diverse topics, and they occurred in a variety of locations. Although it was anticipated that the conversations would all occur over the phone, nurse educators found that they were also using their motivational interviewing techniques during the time spent with teen mothers on the way to and from clinic visits and during home visits.

T.O.P.P. staff noted that the teen mothers were not always talkative; however, certain topics were good conversation starters. Staff noted, "A lot of them, when you start talking about the baby, they really open up. They really want to talk about the baby." The teen mothers also found the conversations about their babies to be memorable; when one participant was asked to reflect on what she got out of the motivational interviewing conversations with nurse educators, she responded, "How to help my baby develop and how to help my baby's muscles develop. The nurse taught me how to do 'tummy time' with my baby."

The motivational interviewing conversations over the telephone covered birth control planning topics as well as personal, interpersonal, educational, and employment issues that were relevant to the participant. (Table V.1). Some conversations focused on the logistics of getting and using services—transportation, contraceptive, or otherwise. When asked what they got out of the conversations and out of the T.O.P.P. program as a whole, participants most frequently mentioned their ability to talk with the nurse educators about birth control, pregnancy, and sexually transmitted diseases (STDs). Indeed, over 9 in 10 clients talked with their educators about a broad range of birth-control related topics. Relationship and parenting issues were also very common. In addition, while many teens (over 7 in 10) talked with their educators about current issues they were facing in school and/or at work, very few (1 in 10) talked with their educator about their future plans or goals related to education and employment.

[4] The data for clients enrolled at least 3 months are based on a sample of 153 clients. For clients enrolled at least 6 months, the sample size is 112 clients; for clients enrolled at least 9 months, the sample size is 82 clients; and for clients enrolled at least 12 months, the sample size is 45 clients.

Table V.1. Topics Discussed Through Motivational Interviewing Calls During Participants' First Six Months in T.O.P.P.

Topic	Percentage of Participants Who Discussed Topic
Birth Control	94
Interest in pursuing birth control	93
Intention to space future births	93
Solicit knowledge about birth control methods	93
Permission to provide information on birth control	92
Provide information and answer questions	93
Pros and cons of various methods	91
Develop or refine birth control plan/goals	92
Support/guide/problem solve to promote plan adherence	94
Transportation: Challenges and problem solving	80
Relationships: Challenges and problem solving	
With boyfriend or partner	87
With family member, friend, or other	71
Parenting Issues	83
Current Education and School Issues	71
Current Employment Issues	79
Future Education, Employment, and Other Goals (not birth-control related)	12
Sample Size	**112**

Source: Program participation data collected through the T.O.P.P. information system.

Note: Includes sample members who had been enrolled for at least six months through February 12, 2013.

VI. FACILITATING ACCESS: THE ROLES OF A SOCIAL WORKER, HOME VISITS, AND TRANSPORTATION

The T.O.P.P. program connects teen mothers to needed services and brings either contraception to teen mothers or teen mothers to contraceptive services. This very personalized and accommodating approach to health service delivery and contraceptive access is achieved through support from a social worker; home visits by nurse educators; transportation to doctor or clinic visits; and, occasionally, visits to the T.O.P.P. clinic.

As an initial and ongoing service, a T.O.P.P. social worker provides information and referrals to help address various supportive service needs of participants.

The T.O.P.P. social worker serves as the link between participants and social services. Soon after enrollment, a T.O.P.P. social worker aims to conduct a psychosocial assessment and domestic violence screener with all participants to assess risk factors and needs (see Appendix B for assessment tools). The screener is administered in person at the clinic or hospital from which the participant is recruited or at the T.O.P.P. office space in a private office. Four of five participants (81 percent) received this assessment and screening during their first 6 months in T.O.P.P. Preliminary data show that this proportion was essentially unchanged after 12 months in T.O.P.P. Although the T.O.P.P. social worker attempted to arrange a time to complete the assessment process with all participants, she could not reach many of them, and some (19 percent) did not receive this service.

The social worker was also alerted to service needs by nurse educators, and the social worker used motivational interviewing techniques to help participants identify potential service strategies to address their needs. As a result of the alerts from nurse educators, nearly two-thirds of participants (64 percent) received information assistance or service referrals during their first 6 months in the program (Table VI.1). Preliminary data show that after 9 months in T.O.P.P., 71 percent of clients had received this type of assistance, and after 12 months, 73 percent had.[5]

The teen mothers seemed to appreciate the social work aspect of T.O.P.P. One participant explained her reason for being satisfied with the T.O.P.P. program: “Because you guys reach out and help us, and the program has great networks.” Similarly, another participant explained, “Because you guys help me with information and advice on what to do when I’m stressed.”

[5] These data should be used with caution given the small sample sizes. For clients enrolled at least 9 months, the sample size is 82 clients; for 12 months, 45 clients.

Table VI.1. Information Assistance/Service Referrals Received Through T.O.P.P. During First Six Months in T.O.P.P.

Type of Information Assistance/Referrals	Percentage of Participants Who Received Assistance/Referral
Any	64
Employment and related services	30
Education/school	24
Housing	18
Household goods, furnishings, materials	26
Child care	15
Mental health care	10
Health care (other than mental health)	3
Financial assistance	9
Insurance	5
Food pantry	3
Legal services	2
Other	5
Sample Size	**112**

Source: Program participation data collected through the T.O.P.P. information system.

Note: Includes sample members who had been enrolled for at least six months through February 12, 2013.

Home visits and other face-to-face contacts can improve contraceptive access, but many teens did not take advantage of them.

Staff saw face-to-face contacts and home visits as value added in the T.O.P.P. program: "Home visits are important, [it is] easier to establish [rapport]. When I'm in their home, I can better understand [where they are coming from], why she may be hesitant to share information." Although a home visit was not required by the program model, educators were encouraged to conduct one home visit or other in-person contact with all participants. Staff firmly believed that face-to-face contact was important for program success. A staff member noted, "It's difficult to disclose your whole sexual history, especially for teenagers. . . . It's difficult when you can't see them, a lot of the girls you've never met." Another staff member mirrored this sentiment: "Sometimes when you can see, touch, talk to a person, it makes a difference."

The teen mothers also recognized the value of home visits. In fact, some of the teen mothers remarked that more home visits would have improved their T.O.P.P. experience. One suggested, "Making the nurses make more home visits instead of just phone calls; that way it's more personal." A participant echoed this sentiment when she suggested an improvement to T.O.P.P. that included "seeing my nurse more often versus phone conversations." One participant identified the home visit

as her favorite part of the program: "That [the nurse educator] came out to my house and spoke to me about the different birth control options."

Nonetheless, a minority of clients participated in a home visit. One staff member noted, "It would be great to do a home visit for all of them. We try, but most don't want to. But I think it's really important to see them all face to face."[6] Staff indicated that clients may have declined the offer of a home visit because they were unsure of its purpose or felt self-conscious about it. Overall, participation data for clients' first 6 months in T.O.P.P. indicate that nearly one-quarter of clients (24 percent) received a home visit, although two-fifths (41 percent) participated in a face-to-face contact of some sort with their nurse educator, either in their homes or in a community setting (See Figure VI.1). Preliminary data show that among clients enrolled at least 9 months, 44 percent received a face-to-face contact; among clients enrolled at least 12 months, more than half (51 percent) had received such a contact.[7]

The lower than expected use of in-person visits partly reflects differences in how the individual nurse educators introduced the visits to clients. Some simply asked clients if they wanted a home visit, while others were more persuasive and aimed to convey the value of the visit. Understandably, the latter approach appeared to lead to more home (or other in-person) visits. Partway through the implementation period, after the program director observed that home visits were less prevalent than expected, the nurses compared their approaches and made adjustments to make them more uniform. The current approach aims to convey the value of the visit and, if necessary, gently overcome any ambivalence some teen mothers may have. As the implementation of T.O.P.P. has progressed, program leadership has also further stressed the importance to the educators of persisting in their efforts to conduct a home or other in-person visit with all clients.

Figure VI.1. Prevalence and Duration of Face-to-Face Contacts During First Six Months in T.O.P.P.

- Received a face-to-face contact: 41 percent (home visit or in community)
  - Received a home visit: 24 percent
  - Had contact in community: 23 percent
- Average duration of contacts
  - Home visit: 1 hour and 15 minutes
  - Community contact: 1 hour and 27 minutes

In-person contacts were opportunities for teen mothers to see and touch contraception.

T.O.P.P. staff took a "contraceptive bag" with them on home visits, van rides, and other in-person contacts in the community as a tool to help educate the teen mothers about different contraceptive options. The festively decorated bag contains informational flyers and pamphlets (for example, on birth control choices and STDs) and, most importantly, examples of contraception—

[6] Around the same time data collection for this report was complete, program staff indicated that they planned to increase efforts to conduct a home visit with all clients.

[7] For clients enrolled at least 9 months, the sample size is 82 clients; for 12 months, 45 clients.

the NuvaRing (birth control ring), Nexplanon (birth control implant), and intrauterine devices. Staff valued these materials as a hands-on experience that helps assuage fears of and share information about unknown birth control methods. "I think the [contraceptive bag] is really helpful—it gives them a visual of what these things look like. . . . A lot of them see the Mirena and are like, 'Wow—I didn't know it was that small!'" A participant identified the program component that facilitated her use of birth control as "knowing more information about the birth control and [the fact that] my nurse shows me demos on what each birth control is, and how it is used."

In the same way that the young mothers seem to appreciate the contraceptive bag, they also seem to respond positively to other visual materials. One participant noted that her use of birth control was facilitated by "the information and pamphlets [along with talking about] my medical records . . . figuring out what works best for me." Yet the T.O.P.P. staff and some of their community partners noted that some materials need to be updated to reflect the needs of the T.O.P.P. population. Staff recommended using "pamphlets with images" and making materials more "hip." They stressed the importance of designing materials at a level that would be accessible to this population. As one staff member noted,

> *"You hand out a brochure that includes a discussion of STDs, T.O.P.P., etc., but I think they need to have language that a teenager can understand, and they need to have visuals about the problems they can have if you have a preterm birth because they really don't understand, even when we talk to them about these things."*

In-person contacts also offered an opportunity to provide contraception to interested participants. After asking participants if they wanted them, the educators typically handed out small goody bags containing condoms. Home visits could also be used to provide Depo-Provera shots, for interested clients.

Eliminating transportation barriers can be key to increasing access to contraception. Most teen mothers discussed and problem solved their transportation challenges with their nurse educator, and some received a van ride.

Once T.O.P.P. staff realized that the mobile clinic was not practical, they turned to van transportation to and from clinic and doctor visits as a way not only to overcome clients' transportation barriers, but also to build rapport and utilize motivational interviewing techniques. The van, driven by the individual nurse educators, turned out to be an important facet of T.O.P.P. for some of the young mothers. As one staff member explained,

> *"Transportation . . . so important. It has been so helpful, very, very valuable, to get them to the appointment and sit in the car and talk to them. . . . It's nice, gives them a sense of "hey this person isn't so bad." [You can say], "Pick a radio station, what do you want to listen to, what have you been up to?" Gives them a sense that [the nurse educator is] not intimidating; gives the girl a sense of control."*

The teen mothers seemed especially appreciative that this transportation helped them get contraceptive services. One participant said she was able to start using contraception because she "actually had one of the T.O.P.P. workers come out and take me—made it easier!"

One in five participants received a van ride through the program during her first 6 months (Table VI.2). The educators spent a lot of time providing this service—more than three hours per participant, on average—typically including picking up the participant at home, driving to her appointment, waiting, and transporting her home. Much of this time offered opportunities to discuss issues—further motivational interviewing time beyond the regular phone contacts. Preliminary data based on the smaller 12-month sample show that after 12 months in T.O.P.P., nearly the same fraction of clients had received at least one van ride, suggesting that this type of assistance may be most common during clients' early months in the program. However, it may also be that van rides were less common in the early period of program implementation, before T.O.P.P.'s approach to addressing transportation needs shifted to a greater emphasis on van rides, as described earlier.

More common than van rides, many T.O.P.P. teen mothers also received informal assistance with their transportation challenges as part of a motivational interviewing conversation with their nurse educator. Rather than providing a van ride, the solution to a client's transportation challenge might involve another service, for example, a bus pass (available through the T.O.P.P. social worker) or guidance on how to arrange a Medicaid-reimbursable shuttle ride to a local clinic or hospital.[8] Four out of five participants (80 percent) discussed and problem solved transportation issues with their nurse educator (Table VI.2).

Table VI.2. Transportation-Related Assistance During First Six Months in T.O.P.P.

Transportation-Related Assistance	Percentage of Participants Who Received Service and Mean Length of Service
Discussed and problem solved transportation with nurse educator	80
Received at least one van ride	21
Received two or more van rides	10
Received services at the T.O.P.P. clinic	9
Mean time spent per van ride, on average	3 hours, 3 minutes
Sample Size	**112**

Source: Program participation data collected through the T.O.P.P. information system.

Note: Includes sample members who had been enrolled for at least six months through February 12, 2013.

[7] Data are not available on the frequency with which these types of transportation supports occur.

This page is left blank for double-sided printing.

VII. LOOKING FORWARD: LESSONS FOR FUTURE IMPLEMENTATION

Lessons from this implementation study of T.O.P.P. can support stronger implementation of the program in the future and also inform possible future replications of the program. T.O.P.P. uses motivational interviewing, contraceptive access, and social service support over an 18-month period to help at-risk teen mothers adhere to a birth control regimen and prevent rapid repeat pregnancies. Overall, during the early phase of implementation examined in this report, T.O.P.P. staff implemented the program model and its strategies largely as planned. Our participation analysis shows that the average client received eight service contacts during her first six months in the program, lasting a total of over two-and-a-half hours. Our examination of program implementation highlights several lessons related to conducting motivational interviewing, improving services that support contraceptive access, and understanding T.O.P.P.'s target population. These lessons are discussed below.

T.O.P.P.'s individualized service model requires a considerable investment in professional nursing staff, as well as a commitment to training and ongoing technical assistance to support motivational interviewing.

T.O.P.P. relies on a particular configuration of expert staff. The role of nurses as the primary contact for participants appears important. The nurses—trained and experienced in obstetrics, gynecology, or maternal and child health—have been able to talk knowledgeably and answer the young mothers' questions about contraception and reproductive health. The program director, also a nurse by training, serves as a part-time T.O.P.P. nurse educator. For a program like T.O.P.P., which is designed to prevent rapid repeat teen pregnancy, having staff with this specialized type of medical knowledge appears to facilitate the delivery of motivational related to contraception and birth spacing—although these same staff also needed to work hard to adapt to the motivational interviewing style of interaction with participants. A full-time licensed social worker plays a key role in facilitating service referrals and information assistance to T.O.P.P. participants, and is trained to use the techniques in interactions with participants. Additionally, a T.O.P.P. physician devotes eight hours per week to the program, mainly by overseeing and serving patients at the T.O.P.P. clinic and also by serving as the program's principal investigator.

The on-staff motivational interviewing expert consultant plays an important role in providing training and ongoing technical assistance around motivational interviewing. The expert consultant's role—from the initial two-day training provided to staff to the ongoing technical assistance and support—appears important not only in preparing staff to interact using motivational interviewing, but also in ensuring fidelity to the technique. Part of the expert consultant's role involves listening to a sample of audio-recorded interactions, coding them for fidelity, and then basing feedback to educators on this fidelity assessment. On average, in addition to the initial two-day training, the consultant's time commitment to and contract with T.O.P.P. in its first year represented about two hours per week, and then a little over one hour per week on an ongoing basis.

Any efforts to replicate or scale up motivational interviewing should allow for adequate staff training and technical assistance. Its individualized and flexible nature means that the technique is constantly being applied in very individual ways that vary from staff member to staff member and participant to participant. This necessitates ongoing guidance and technical assistance to ensure that staff members' use of the technique adheres to established motivational interviewing guidelines.

T.O.P.P. promotes efficiency in program operations by delivering most of the motivational interviewing via telephone. Motivational interviewing would be more costly to implement if contacts were mostly made in person because the nurse educators would, by design, need to carry smaller caseloads. However, questions remain about whether motivational interviewing can work well over the phone. Staff wondered about its effectiveness as a telephone technique rather than a face-to-face technique. In fact, one staff member commented, "I'm not aware of any teaching that says there's a difference between phone motivational interviewing and face-to-face motivational interviewing, but I'm sure it's better in person." This evaluation of T.O.P.P. will provide useful information to the motivational interviewing field, as little is known from previous research about its effectiveness over the phone.

Motivational interviewing takes patience to master, persistence to conduct with teen mothers, and rapport and relationship-building to use successfully.

Staff, including the expert consultant, noted that there is a learning curve with motivational interviewing techniques and that staff should be allowed a long learning period before program implementation. In the case of T.O.P.P. staff, they seemed satisfied with the overall duration of their training because they received upfront training from T.O.P.P.'s expert consultant as well as ongoing training in their weekly supervision meetings. Yet they also noted that gaining comfort and skill with the techniques takes time and practice, and they did some of that learning on-the-job. As such, they noted that they could have benefited from more real-world motivational interviewing practice after their formal training and prior to program implementation.

Staff also needed patience and persistence just to establish and maintain contact so they can use motivational interviewing. Contacting young mothers after their enrollment can be difficult and may mean relying on alternative forms of communication. The teen mothers served by T.O.P.P. are fairly transient and thus difficult to find sometimes. As one staff member said, "It's not easy keeping up with them…. They're very transient; their phone numbers change…." It is also not always easy to get them on the phone, even when the staff have located them—either because they prefer to text, are in school during the day, or do not have minutes left on their cell phones. As a result, staff had to adapt their communication approaches: they started texting, calling in the afternoon after school hours, and calling at the beginning of the month before cell phone minutes have been depleted. Most importantly, the staff emphasize the importance of persistence and patience: "Keep calling them each month to let them know you are there."

The person providing motivational interviewing plays a key role not only in using the technique successfully, but also in developing positive and encouraging relationships with the teen mothers. Every staff member interviewed noted that the staff member must feel comfortable implementing the motivational interviewing techniques. Even once techniques have been mastered, rapport building, a critical ingredient to motivational interviewing and the success of the T.O.P.P. program, can also take time—which may not be something that staff members can get with the program's young mothers. To use motivational interviewing successfully in T.O.P.P. also requires staff who are enthusiastic about working with at-risk teens and who are committed to establishing rapport and keeping them engaged over time. Staff must be able to connect with the teen mothers, make them feel comfortable, and help them see the value in the information and support available through T.O.P.P..

Private office space is also important. Early in the period of T.O.P.P. operations, educators did not have private office space in which to conduct their motivational interviewing telephone

conversations. This changed midway through the implementation period when T.O.P.P. began to provide office space for the educators to make the calls. Given the sensitive nature of the conversations, educators feel more comfortable holding them in a private space.

To increase the use of home and other in-person visits, T.O.P.P. should consider formalizing and "manualizing" the process for initiating and conducting these visits.

Although the T.O.P.P. program model did not require home or in-person visits, the T.O.P.P. nurse educators were unanimous in their view that these visits were important for building a strong rapport and connection with the teen mothers. Early qualitative feedback from the teen mothers themselves echoed the educators' positive sentiments about the usefulness of the in-person visits. Although T.O.P.P. encouraged home and in-person visits, without the requirement to conduct one, many educators prioritized different types of interactions with clients and did not persist in their efforts to schedule an in-person visit with each client. The teen mothers were often difficult to reach and hesitant to commit to program appointments. Overall, as described earlier in the report, only 4 in 10 T.O.P.P. clients participated in a home or in-person visit during their first six months in the program. Participation in visits was lower than the program anticipated during the early phase of implementation examined in this report. A complete analysis of clients' experiences in T.O.P.P. will be conducted after all the young mothers have been enrolled for the full 18-month period. This final participation analysis will help in understanding the role home visiting played in the overall T.O.P.P. intervention.

For future implementation or replication of the program in other places, T.O.P.P. leadership might consider two key program strategies to increase the likelihood that all clients receive at least one in-person visit. As a starting point, an in-person visit could be formalized as a requirement of program participation, and prospective participants could be asked to agree to an in-person visit as a condition of program enrollment.

Second, a semi-structured guide or manual, specifically for home and other in-person visits, might be a helpful addition to the tools T.O.P.P. provides its staff. T.O.P.P could design such a guide to complement the motivational interviewing process and provide informal scripts and discussion prompts to guide educators through the steps and challenges associated with setting up an in-person visit, overcoming ambivalence of some teens for such a visit, and conducting a visit. In particular, the home environments of program participants can be distracting and chaotic, which can present added challenges and create unease for educators. A guide might help staff navigate these types of challenges. The use of such a guide, coupled with additional assistance on conducting home and other in-person visits, might be an important step in improving educators' capacity to perform the home visiting role. Opportunities for practice, individualized feedback, and shadowing the more experienced educators on home visits might also prove useful.

T.O.P.P. may work best when a participant has some initial motivation to change her behavior, and it may work better with older rather than younger teens.

In conducting motivational interviewing, the educators have found it helpful if the young mothers begin the program with some interest in preventing a rapid repeat pregnancy—but not all the young mothers do. Making clinic appointments, keeping them, and starting to use contraception require interest, motivation, and some level of maturity. Ideally, increased

motivation and then follow-through action will emerge from the motivational interviewing that T.O.P.P. provides, but staff note that despite their efforts, it is challenging to motivate the young women to take action. As one somewhat discouraged staff member noted, "The hardest thing is when you talk to them, you talk about birth control but there's no follow-through. . . . That's the problem with adolescents. To improve this, we really need to just give them contraception."

Lack of motivation and follow through among the young mothers was a source of frustration for the staff. One staff member noted that "the T.O.P.P. person would be here to meet a girl for an appointment, but the girl wouldn't show up. We asked ourselves, at what point do we stop doing things for them?" Another staff member commented, "There's nothing more frustrating than seeing a girl get to the action phase, but then not have the girl get contraception." The observed lack of motivation may partly help to explain why use of home visits was lower than the program expected.

In general, motivational interviewing seems to work better with the older teen mothers. Motivational interviewing is contingent on communication and letting the participant guide the conversation, so for it to work, the participant has to be willing to talk and be able to articulate thoughts. The staff noted that this is not always the case; many reflected that the younger teens in the program (for example, the 15- to 16-year olds) often have a difficult time articulating their thoughts and that, in general, the older teens (for example, the 18- to 19-year olds) are easier to talk with about their understanding of birth control methods, as well as their intentions and goals. Overall, nearly 3 in 4 teens served by T.O.P.P. were ages 18 or 19 at the time of their enrollment.

Given T.O.P.P.'s modest level of intensity and modest use of face-to-face contacts, it may be that participants need to have some motivation and/or maturity at the outset to take advantage of T.O.P.P.'s services and achieve the program's goals. Moreover, young mothers who start the program with low motivation may be harder to engage through an intervention like T.O.P.P. that is primarily telephone based.

Gaps in services and opportunities still exist, and teen mothers' lives are complicated—both factors that may impinge on the success of the T.O.P.P. program.

Teen mothers face a multitude of barriers to achieving their goals, including their contraceptive use and birth-spacing goals. One participant included in her list of barriers "having the baby, having to get here and there. Being in school trying to finish up." Another listed "my busy schedule and working two jobs." One simply stated, "I have a lot going on in my life." The aim of T.O.P.P. is to help eliminate some of those barriers by facilitated access to contraceptives and other services and to improve motivation to overcome barriers individually. But teen mothers will continue to face challenges in their day-to-day lives and in their trajectory to adulthood.

Many of those challenges cannot be directly addressed in T.O.P.P., and gaps in other services make addressing them elsewhere difficult. For example, staff and community stakeholders identified persistent service gaps in the Columbus area that are outside of the scope of T.O.P.P.: a lack of low-income housing; inaccessibility of long-acting reversible contraceptives (which some clinics will not administer to teens); inadequate public transportation (inconvenient hubs and high cost); and insufficient funding for community resources and programs that could be used to integrate care.

Within T.O.P.P., some perceived the lack of a group component as a gap. Some staff and community members saw value in incorporating a group component or developing group programs in addition to the T.O.P.P. program. One staff member reflected, "A lot of girls ask if there is anyone in the community that they can talk to who has been through what they're going through." Another staff member noted, "Groups are very powerful. . . . They can push each other, they can talk about their experience of being a teen mom. There are also people who *want* to share." These ideas were offered, however, in conversations that did not delve into the challenges of addressing these gaps and implementing these new ideas.

In sum, T.O.P.P. uses motivational interviewing, contraceptive access, and social service support to help at-risk teen mothers adhere to a birth control regimen and prevent rapid repeat pregnancies. Although the impact of the T.O.P.P. program is yet to be seen, the teen mothers who participated in the program have responded positively to their experiences.

This page is left blank for double-sided printing.

REFERENCES

Andersen, R. M. "Revising the Behavioral Model and Access to Medical Care: Does It Matter?" *Journal of Health and Social Behavior*, vol. 36, 1995, pp. 1–10.

Babitsch, B., D. Gohl, T. von Lengerke. "Re-Revisiting Andersen's Behavioral Model of Health Services Use: A Systematic Review of Studies from 1998–2011." *Psychosocial Medicine*, vol. 9, 2012.

Barnet, B., J. Liu, M. DeVoe, A. K. Duggan, M. A. Gold, and E. Pecukonis. "Motivational Intervention to Reduce Rapid Subsequent Births to Adolescent Mothers: A Community-Based Randomized Trial." *Annals of Family Medicine*, vol. 7, 2009, pp. 346–445.

Centers for Disease Control and Prevention. "Vital Signs: Repeat Births Among Teens—United States, 2007–2010." *Morbidity and Mortality Weekly Report*, vol. 62, no. 13, 2013, pp. 249–255.

Child Trends. "Facts at a Glance: A Fact Sheet Reporting National, State, and City Trends in Teen Childbearing." Bethesda, MD: Child Trends, Publication No. 2011-10, April 2011.

Conde-Agudelo, A., A. Rosas Bermudez, and A. C. Kafury Goeta. "Birth Spacing and Risk of Adverse Perinatal Outcomes: A Meta Analysis." *Journal of the American Medical Association*, vol. 295, 2006, pp. 1809–1823.

Floyd, R. L., M. Sobel., et al. "Preventing Alcohol-Exposed Pregnancies: A Randomized Controlled Trial." *American Journal of Preventive Medicine*, vol. 32, pp. 1–10.

Hettema, J., J. Steele, and W. R. Miller. "Motivational Interviewing." *Annual Review of Clinical Psychology*, vol. 1, 2005, pp. 91–111.

Hoffman, S. D. "Consequences of Teen Childbearing for Mothers: Updated Estimates of the Consequences of Teen Childbearing for Mothers." In *Kids Having Kids: Economic Costs and Social Consequences of Teen Pregnancy*, edited by S. D. Hoffman and R. A. Maynard. Washington, DC: The Urban Institute Press, 2008, pp. 74–92.

Klerman, L. V. "Another Chance: Preventing Additional Births to Teen Mothers." Washington, DC: National Campaign to Prevent Teen and Unplanned Pregnancy, 2004. Available at [http://thenationalcampaign.org/resource/another-chance].

Martin, J. A., B. E. Hamilton, S. J. Ventura, et al. "Births: Final Data for 2010." *National Vital Statistics Reports*, vol. 61, no. 1, 2012.

Martinez, G., C. E. Copen, and J. C. Abma. "Teenagers in the United States: Sexual Activity, Contraceptive Use, and Childbearing, 2006–2010 National Survey of Family Growth, National Center for Health Statistics." *Vital Health Statistics,* vol. 23, no. 31, 2011.

Nationwide Children's Hospital. "Full Potential Community Report: Teen Pregnancy Trends." Columbus, OH: Nationwide Children's Hospital. Available at: http://www.nationwidechildrens.org/full-potential-teen-pregnancy, 2010.

Ohio Department of Health. "Postpartum Visits, Ohio Medicaid Population." (2007). Available at [http://www.odh.ohio.gov]. Accessed May 18, 2010.

Ohio Department of Health. *Pregnancy, 2010.* Columbus, Ohio: Ohio Department of Health, 2012. Available at http://www.odh.ohio.gov/healthstats/disparities/pregnancy.aspx.

Patton, Michael Quinn. *Qualitative Research and Evaluation Methods,* 3rd ed. Thousand Oaks, CA: Sage Publications, 2002.

Ritchie, Jane, and Liz Spencer. "Qualitative Data Analysis for Applied Policy Research." In *The Qualitative Researcher's Companion*, edited by A. Michael Huberman and Matthew B. Miles. Thousand Oaks, CA: Sage Publications, 2002.

Rollnick, S., and W. R. Miller. *Motivational Interviewing: Preparing People for Change.* New York: Guilford Press, 2002.

SAMHSA (Substance Abuse and Mental Health Services Administration). "Motivational Interviewing: Open Questions, Affirmation, Reflective Listening, and Summary Reflections (OARS)." Available at [http://homeless.samhsa.gov/Resource/Motivational-Interviewing-Open-Questions-Affirmation-Reflective-Listening-and-Summary-Reflections-OARS-32840.aspx]. Accessed July 2013.

Scientific Software Development. "Atlas.ti: Visual Qualitative Data Analysis Management Model Building in Education Research and Business." Berlin, Germany: SSD, 1997.

Smith, K., and S. Colman. "Evaluation of Adolescent Pregnancy Prevention Approaches: Design of the Impact Study." Princeton, NJ: Mathematica Policy Research, 2012.

United Nations. *Demographic Yearbook 2009–2010: Live Births by Age of Mother*. New York, NY: United Nations, United Nations Statistics Division, 2011.

Available at http://unstats.un.org/unsd/demographic/products/dyb/dyb2009-2010.htm. . Retrieved April 12, 2013.

APPENDIX A

IMPLEMENTATION STUDY DATA SOURCES AND METHODOLOGY

This page is left blank for double-sided printing.

The findings from this implementation study were drawn from three data sources: (1) qualitative data collected during a site visit through semi-structured staff and stakeholder interviews, (2) program participation data, and (3) participant survey data.

Site Visit

The primary source of data for this report was a series of qualitative interviews conducted with T.O.P.P. program leadership, staff, and other community stakeholders as part of a two-day site visit to Columbus, Ohio. The interviews were conducted in January 2013 by a team of two PPA researchers.

Site visit respondents. To provide a broad picture of T.O.P.P. program development and implementation, we identified six groups of people to interview: (1) program leadership (former and current); (2) the program physician; (3) nurse educators; (4) the program social worker; (5) the motivational interviewing expert consultant; and (6) community stakeholders (individuals who provided other programs or services to pregnant and parenting teens, some of whom referred teen mothers to T.O.P.P.). We worked with the T.O.P.P. program director to recruit and schedule interviews with a total of 14 individuals.

Interview topics. Once the interview respondents were identified, a semi-structured interview protocol was developed for each of the six groups. Semi-structured interviews were appropriate because they provide a basic structure for discussing key topics and also allow for follow-up probes and questions that arise from interview responses. The T.O.P.P. implementation interview protocols were based on broad PPA implementation study protocols previously approved by the Office of Management and Budget and PPA's Institutional Review Board (IRB). The questions were tailored for T.O.P.P. based on specific features of the program. The protocols underwent review and revision before submission to and approval by the OhioHealth IRB. Protocols included questions on the topics highlighted in Table A.1.

Table A.1. Key Site Visit Topics

Topic	Description
Respondent Background	T.O.P.P. staff member or community stakeholder's professional background and experiences working with pregnant and parenting teens
Program Overview and Components	T.O.P.P. goals and key activities
Program Context	The community in which T.O.P.P. is being implemented and information on the development of T.O.P.P.
Program Counterfactual	Services already in the community for pregnant and parenting teens
Population Served	The teen mothers served by T.O.P.P. (or, in the case of community stakeholders, information about the pregnant and parenting teens served by their respective programs or services)
Training	T.O.P.P. training received
Program Recruitment and Participant Rapport	The recruitment of program participants and about relationship building, engagement, and communication with the teen mothers
Program Implementation	On-the-ground program implementation and monitoring of implementation, including quality and fidelity of program implementation
Lessons	Overall experiences implementing T.O.P.P., including successes and challenges

Study consent and data collection. Prior to the site visit, interview respondents were given a consent form to review. The consent form outlined the basic purpose of the implementation study, the procedures to safeguard respondent confidentiality, the potential risks and benefits of the study, and respondents' ability to cease participation at any time. On the day of the site visit interviews, respondents were again given a copy of the consent form, and we reviewed the form with them verbally before asking them to sign it.

Once a respondent consented to be in the implementation study and to have his or her interview audio-recorded, we turned on the audio-recorder and began the interview. None of the respondents refused to be interviewed or audio-recorded. Each of the 14 interviews lasted between 45 and 90 minutes. Two interviewers were present for each interview, with one taking the lead in asking the interview questions and one live-transcribing the interview responses (which could be supplemented by the audio recordings when needed).

After the site visit concluded, we conducted one follow-up call with the program director to fill in gaps in our understanding of the program and its operation. This interview was conducted via telephone and was also transcribed in real time.

During the site visit, the two interviewers held short debriefing sessions to identify preliminary themes and findings; this allowed unexpected themes to be explored in subsequent interviews. The themes identified also helped shape the development of the coding scheme, described below. When all interviews were complete, the interviewers engaged in a longer debriefing session to discuss emerging themes and to ensure consistency in interviewer identification of themes.

Analysis approach. Qualitative analysis of the site visit data involved an iterative process using thematic analysis and triangulation of data sources (Patton 2002; Ritchie and Spencer 2002). Because of the number of interviews conducted, we used a qualitative analysis software package, Atlas.ti (Scientific Software Development 1997), to facilitate organizing and synthesizing the data.

First, we developed a coding scheme for the analysis, organized according to key topic. The initial coding scheme was based on a general scheme used across PPA sites, with both overarching "parent" topic codes and more specific subcodes. That coding scheme was refined for T.O.P.P. using an iterative approach. Specifically, when data collection ended, PPA staff engaged in a collective and individual process of open coding. Open coding is an inductive approach to qualitative analysis that allows unanticipated codes or themes to emerge. During this process, PPA staff identified codes that did not work for T.O.P.P. or those that needed to be adapted. The resulting coding scheme supported a systematic process of analysis and interpretation.

Second, we applied the codes to passages in the interview notes to facilitate data analyses. To ensure accurate and consistent coding, two analysts independently coded site visit data and a researcher (a member of the site visit team) reviewed the coded documents and reconciled any differences in coding. To address the research questions, we used the Atlas.ti software to retrieve relevant passages in the qualitative data, analyze the patterns of responses across respondents, and identify emergent and important themes.

Program Participation Data

The quantitative data presented in the report on client participation in T.O.P.P. come from the T.O.P.P. SharePoint Information System. Mathematica developed this system for OhioHealth to accommodate both program and evaluation tasks. The system allows T.O.P.P. educators to document the number, type, content, and duration of their contacts with program participants. Contacts are identified as motivational interviewing phone calls, reminder calls, home visits, van rides, clinic visits, and social worker assessments. Staff also record the types of topics discussed during their calls as well as the types of information and referrals provided to participants.

In analyzing the program participation data, we focused on clients' first six months in T.O.P.P. Because program enrollment occurs on a rolling basis, relatively few clients had been enrolled for more than six months at the time of the analyses. The analyses of clients' first six months of participation are based on a sample of 112 clients (or 38 percent) of the eventual research sample of T.O.P.P. participants.

Participant Survey Data

Population served. Data on the population served by the intervention were gathered from a baseline survey administered to program participants by Mathematica Policy Research at the time of enrollment in T.O.P.P. The survey instrument collected data on demographic and background characteristics; risk-taking behavior; previous receipt of sex education; knowledge, attitudes, and intentions toward sexual activity; and sexual activity and contraceptive use. The survey was administered to consented youth on a rolling basis, beginning in October 2011. The survey data in this report are from 197 youth who participated in T.O.P.P. and had completed the survey at the time of the site visit (nearly two-thirds of the eventual research sample of T.O.P.P. participants).

Participant experiences in T.O.P.P. Qualitative data on participants' experiences in T.O.P.P. were gathered as part of a performance measure survey administered by OhioHealth staff to participants 9 months after their enrollment. The survey collected open-ended responses on what participants liked best about the program, what T.O.P.P. taught them that they didn't already know, what they would change about T.O.P.P. if they could, how they would rate their overall experience in T.O.P.P., and, if they developed a plan to use birth control, what factors made it easier or more difficult to carry out their plan. These data were reviewed for the 49 participants who had completed the survey at the time the analyses for this report were conducted. These data were used to supplement the other data sources. We reviewed the frequency and pattern of responses to enhance our understanding of program implementation and help illustrate participants' experiences in the program.

This page is left blank for double-sided printing.

APPENDIX B

KEY PROGRAM DOCUMENTS

This page is left blank for double-sided printing.

Nurse Educator Flow Sheet

Patient Study Number:_____

1. Tell me the pros and cons of getting pregnant again in the next 18 months?

Pros	Cons

2. Tell me what you know about birth control options?

	Pros	Cons
Abstinence		
Condoms		
Pill		
Patch		
Depo		
Implanon		
Mirena		
Copper IUD		
Nuva Ring		
Other		

What was positive/negative from past?

3. Is it OK if I tell you some things I know about the birth control options?
(Please record patient's comments after each method if made during description)

	Pros	Cons
Abstinence		
Condoms		
Pill		
Patch		
Depo		
Implanon		
Mirena		
Copper IUD		
Nuva Ring		
Other		

4. What do you think about the information that I shared with you?

Date/Time:_____

_____

Date/Time:_____

_____

Date/Time:_____

_____

Date/Time:_____

_____

5. What problems do you think you might have with using this type of contraceptive?

Date/Time:_____

Date/Time:_____

Date/Time:_____

Date/Time:_____

6. Describe any resistance here.

Date/Time:_____

Date/Time:_____

Date/Time:_____

Date/Time:_____

7. Does the patient have an action plan in place?

Date/Time:_____

Date/Time:_____

Date/Time:_____

Date/Time:_____

8. Did patient verbalize understanding of different birth control?

Date/Time:_____

_____

Date/Time:_____

_____

Date/Time:_____

_____

Date/Time:_____

_____

9. Does patient verbalize understanding of how to use the birth control method they chose?

Date/Time:_____

_____

Date/Time:_____

_____

Date/Time:_____

_____

Date/Time:_____

_____

10. What problem-solving assistance did you offer about birth control:

Date/Time	RN	Birth control method	Pros/Cons	Interventions

Date/Time	RN	Birth control method	Pros/Cons	Interventions

Intervention Key

- Positive Reinforcement
- Readiness Ruler
- Envelope Scenario
- Teaching on Birth control
- Worksheet for Change
- Educational References/ pamphlets
- Referrals
- Goal setting (if ambiguous, or BC change made)
- See Nurse Assessment section

11. Open-Ended Narrative (Describe any other information that you obtained from the patient that were not described above)

Date/Time:_____

_____

_____

_____

Date/Time:_____

_____

_____

_____

Date/Time:_____

Date/Time:_____

RN Signatures:

Teen Options to Prevent Pregnancy Fidelity Toolkit

RN Educator Name: _____

Participant Name: _____

Session Date: _____

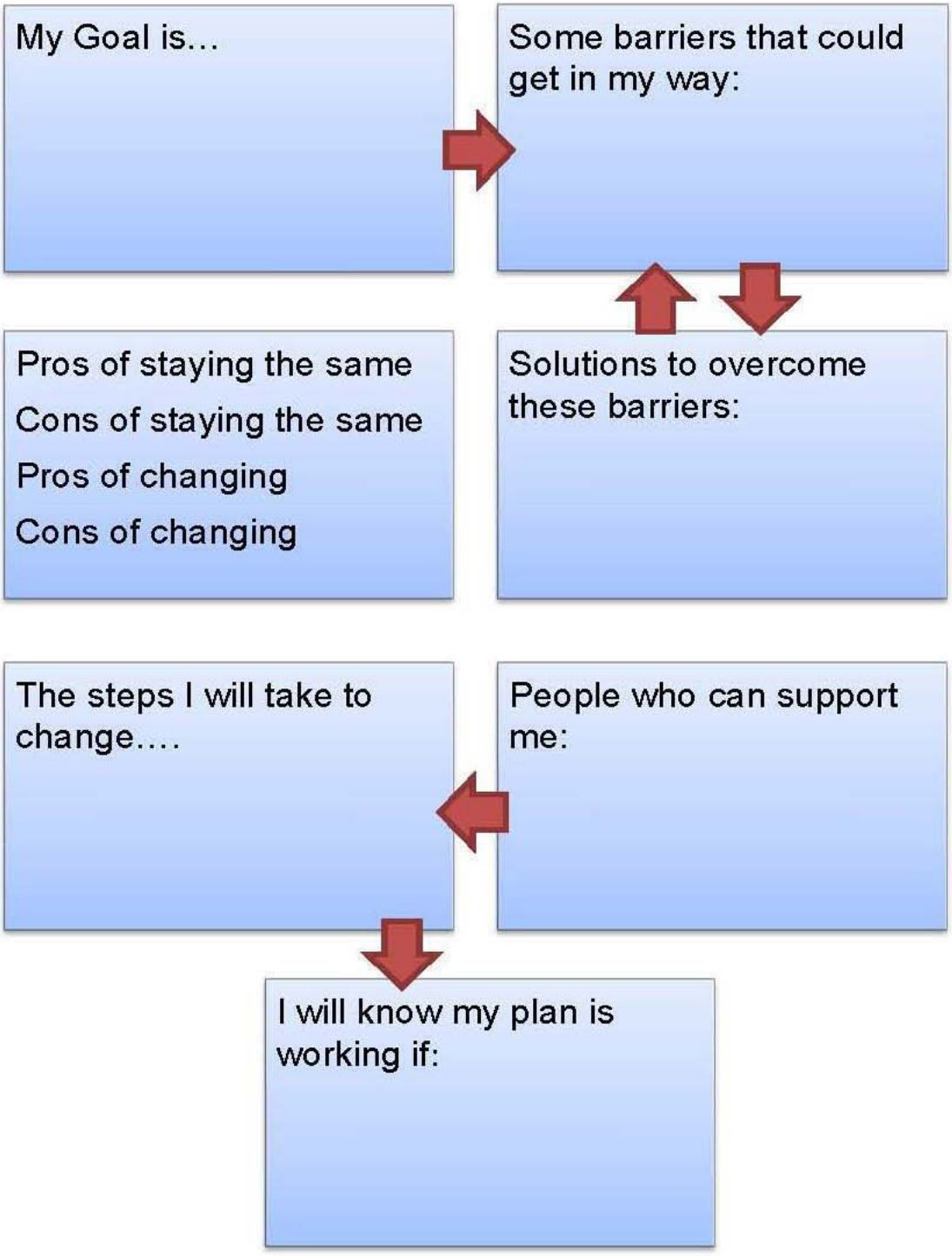
Goals:

1. Reduce rapid-repeat pregnancies
2. Increase contraceptive use

Activity	✓	Nurse Educator	✓	Youth
1. Orientation of Study		Develop rapport with participant through introduction and discussion of confidentiality and goals of study.		Verbalized understanding of confidentiality and goals of study.
		Ascertain best time to call.		Acknowledgement of receipt of educational information.
		Discuss educational material.		Restates understanding of use and side effects of birth control of choice.
2. Stages of Change Determination		Discuss Stages of Change: Precontemplation, Contemplation, Preparation, Action, Maintenance		Participant will discuss and determine Readiness for Change.
3. Goal Setting		Discuss with participant possible goals and change plan for birth control.		Makes goal statement for birth control.
		Discuss different birth control options with participant.		Discusses the pros and cons of their birth control choice.
4. Nurse Educator's Use of Motivational Intervention Techniques		Use open-ended questions, affirmation, reflection, and summarization during sessions with participants.		Gives affirmation of accurate reflections and summarizations of conversations.
5. Transportation		Explain possibility of using transportation services if transportation is a barrier to family planning.		Verbalizes understanding and use of transportation, car seat and seat belt policy.
6. Assess for Critical Pyschosocial Needs		Refer to social worker or other resources listed in Resource Manuel.		Verbalizes steps to access resources.

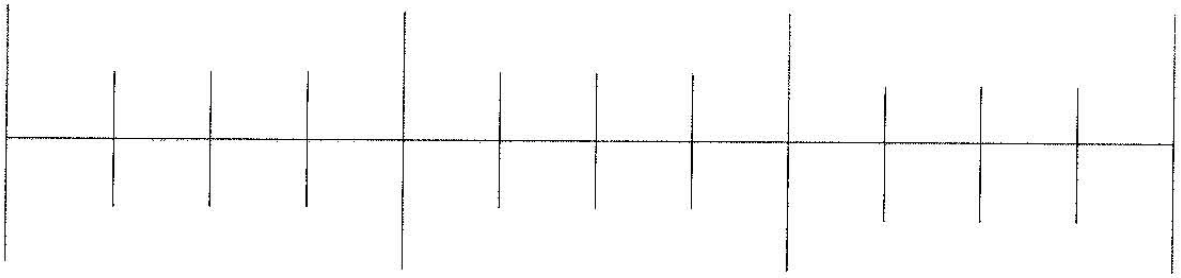
Key
✓ = activity achieved
N/A = not applicable for this session

Worksheet for Change



Self- Evaluation Ruler

On the following scale, which point best reflects your feelings about birth control?



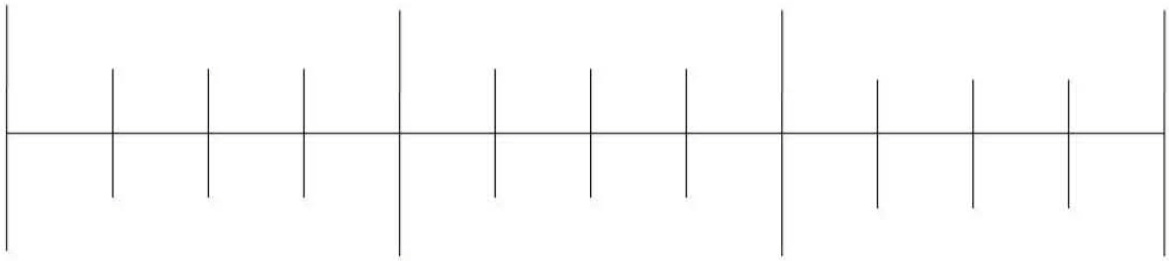
Not at all Ready to use birth control

Thinking about using birth control

Committing to use birth control

Actively using birth control

On the following scale, which point best reflects your feelings about getting pregnant again?



Not at all ready to get pregnant again

Thinking about getting pregnant again

Committing to get pregnant again

Actively wanting to get pregnant again

Edinburgh Postnatal Depression Scale

Patient Study Number: _____

As you are pregnant or have recently had a baby, we would like to know how you are feeling. Please check the answer that comes closest to how you have felt **IN THE PAST 7 DAYS**, not just how you feel today.

Here is an example, already completed.

I have felt happy:

☐ Yes, all the time
☒ Yes, most of the time
☐ No, not very often
☐ No, not at all

This would mean: "I have felt happy most of the time" during the past week. Please complete the other questions in the same way.

In the past 7 days:

1. I have been able to laugh and see the funny side of things
   - ☐ As much as I always could
   - ☐ Not quite so much now
   - ☐ Definitely not so much now
   - ☐ No, not at all

2. I have looked forward with enjoyment to things
   - ☐ As much as I ever did
   - ☐ Rather less than I used to
   - ☐ Definitely less than I use to
   - ☐ Hardly at all

3. I have blamed myself unnecessarily when things went wrong
   - ☐ Yes, most the time
   - ☐ Yes, some of the time
   - ☐ Not very often
   - ☐ No, neverl

4. I have been anxious or worried for no good reason
   - ☐ No, not at all
   - ☐ Hardly ever
   - ☐ Yes sometimes
   - ☐ Yes, very often

5. I have felt scared or panicky for no good reasons
   - ☐ Yes, quite a lot
   - ☐ Yes, sometimes
   - ☐ No, not much
   - ☐ No, not at all

6. Things have been getting on top of me
   - ☐ Yes, most of the time I haven't been able to cope at all
   - ☐ Yes, sometimes I haven't been coping as well as usual
   - ☐ No, most of the time I have coped very well
   - ☐ No, I ha ve been coping as well as ever

7. I have been so unhappy that I have had difficulty sleeping
   - ☐ Yes, most of the time
   - ☐ Yes, sometimes
   - ☐ Not very often
   - ☐ No, not at all

8. I have felt sad or miserable
   - ☐ Yes, most of the time
   - ☐ Yes, quite often
   - ☐ No, not very often
   - ☐ No, not at all

9. I have been so unhappy that I have been crying
   - ☐ Yes, most of the time
   - ☐ Yes, quite often
   - ☐ Only occasionally
   - ☐ No, never

10. The thought of harming myself has occurred to me
    - ☐ Yes, quite often
    - ☐ Sometimes
    - ☐ Hardly ever
    - ☐ Never

Administered/Reviewed by _____ Date_____

[1]Source: Cox, J. L., Holden, J. M., and Sagovsky, R. 1987. Detection of postnatal depression: Development of the 10-item Edinburgh Postnatal Depression Scale. British Journal of Psychiatry 150: 782-786

[2]Source: K. L. Wisner, B. L. Parry, C. M. Piontek, Postpartum Depression. N Engl J Med vol. 347, No 3, July 18, 2002, 194-199

RN/Social Worker Signature _____

Coordinator Signature _____

Edinburgh Postnatal Depression Scale[1] (EPDS)

Postpartum depression is the most common complication of childbearing.[2] The 10-question Edinburgh Postnatal Depression Scale (EPDS) is a valuable and efficient way of identifying patients at risk for "perinatal" depression. The EPDS is easy to administer and has proven to be a effective screening tool.

Mothers who score above 13 are likely to be suffering from a depressive illness of varying severity. The EPDS score should not override clinical judgment. A careful clinical assessment should be carried out to confirm the diagnosis. The scale indicates how the mother has felt ***during the previous week.*** In doubtful cases it may be useful to repeat the tool after 2 weeks. The scale will not detect mothers with anxiety neuroses, phobias, or personality disorders.

Women with postpartum depression need not feel alone. They may find useful information on the web sites of the National Women's Health Information Center www.4women.gov and from groups such as Postpartum Support International www.chss.iup,edu/postpartum and Depression after Delivery www.depressionafterdelivery.com.

SCORING

QUESTIONS 1, 2, & 4 (without an *)
Are scored 0, 1, 2, or 3 with top box scored as a 0 and the bottom box scored as a 3

QUESTIONS 3, 5-10 marked with an *)
Are reverse scored, with the top box scored as a 3 and the bottom box scored as a 0

Maximum score: 30

Possible Depression: 10 or greater

Always look at item 10 (suicidal thoughts)

Instructions for using the Edinburgh Postnatal Depression Scale:

1. The mother is asked to check the response that comes closest to how she has been feeling in the previous 7 days.
2. All the items must be completed
3. Care should be taken to avoid the possibility of the mother discussing her answers with others. (Answers come from the mother or pregnant woman)
4. The mother should complete the scale herself, unless she has limited English or has difficulty with reading.

[1]Source: Cox, J. L., Holden, J. M., and Sagovsky, R. 1987. Detection of postnatal depression: Development of the 10-item Edinburgh Postnatal Depression Scale. British Journal of Psychiatry 150: 782-786

[2]Source: K. L. Wisner, B. L. Parry, C. M. Piontek, Postpartum Depression. N Engl J Med vol. 347, No 3, July 18, 2002, 194-199

Patient Study Number _____

Abuse Assessment Screen&HITS modified for adolescents.

Does your boyfriend or anyone else ever

1. Insult you or talk down to you?

2. Threaten you with harm?

3. Scream or curse at you?

4. Within the last year, have you been hit, slapped, kicked, choked, or otherwise physically hurt by someone? If yes, by whom?

5. Since you have been pregnant, have you been hit, slapped, kicked, choked, or otherwise physically hurt by someone? If yes, by whom?

6. In the last year, has anyone forced you to have sexual activities? If so, whom?

7. Are you afraid of your partner or anyone else? If so, whom?

Positive response to any of 4-7 indicates abuse denotes abuse. Positive response to 1-3 are especially important in combination with 4-7