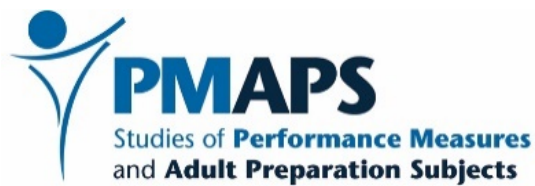


CONCEPTUAL MODELS FOR ADULTHOOD PREPARATION SUBJECTS WITHIN THE PERSONAL RESPONSIBILITY EDUCATION PROGRAM (PREP)



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VIII. CONCEPTUAL MODEL FOR ADDRESSING PARENT-CHILD COMMUNICATION IN PREP

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VIII. CONCEPTUAL MODEL FOR ADDRESSING PARENT-CHILD COMMUNICATION IN PREP

For the APS conceptual models study, the study team developed conceptual models for the six APSs (adolescent development, educational and career success, financial literacy, healthy life skills, healthy relationships and parent-child communication). The team then developed a unified framework to identify connections across subjects. Together, the models and framework are intended to help ACF support effective programs by providing PREP grantees with guidance on what constitutes adulthood preparation programming, what infrastructure is needed to support it, how to offer such programming within adolescent pregnancy prevention programs, and what outcomes are anticipated. Each conceptual model draws on theoretical and empirical literature. Other sources included consultations with stakeholders and experts; feedback from staff in FYSB and OPRE; and interviews with PREP grantees about their experiences designing and implementing APS programming.

The Family and Youth Services Bureau (FYSB) and the Office of Planning, Research, and Evaluation (OPRE), both within the Administration for Children and Families (ACF), contracted with Mathematica and its partner, Child Trends, to develop conceptual models for the adulthood preparation subjects (APSs) and to determine how they fit within PREP programming.

PREP grantees must adhere to four program requirements: (1) implement evidence-based or evidence-informed curricula; (2) provide education on both abstinence and contraception for the prevention of pregnancy, sexually transmitted infections (STIs), and HIV; (3) educate youth on at least three of six APSs; and (4) focus on high-risk populations, such as youth residing in geographic areas with high teen birth rates, adjudicated youth, youth in foster care, minority youth, and pregnant or parenting teens. PREP grantees are also required to implement a positive youth development (PYD) approach in their programs. Grantees have discretion in how to meet these requirements. This discretion allows them to tailor their programs to fit the needs of the targeted population and their priorities.

The intention of supplementing pregnancy prevention programs with APS content is to further prepare youth for the transition to adulthood. It is hypothesized that incorporating APS content will strengthen the ability of programs to reduce sexual risk behaviors and expand the range of outcomes that programs affect.

This report is a first step toward helping PREP grantees understand issues of integrating and implementing APSs into their programming. The information presented herein reflects grantee perspectives and published literature on the APSs. The primary aim of this report is to provide grantees with a framework to support the implementation of APSs in their projects.

This chapter presents the conceptual model for parent-child communication through a schematic and supporting narrative. It starts by defining parent-child communication (Section A) and briefly describing how the study team developed this model (Section B). Sections C through H review each model component and the supporting research literature. Section I describes conclusions and suggests areas for future research.

A. Working definition of parent-child communication

The legislation authorizing PREP provided a limited definition for each APS.²⁰ To guide the APS study, the study team developed a working definition that built from the language included in the legislation. The study team then shared the working definition with APS consultants, librarians, and ACF and refined it based on their feedback. The study team continued to refine

²⁰ https://www.ssa.gov/OP_Home/ssact/title05/0513.htm.

the working definition throughout the development of the conceptual model based on reviewed literature and feedback from ACF, PREP grantees, and stakeholders. Each APS is multifaceted, with a range of potential applications to youth. The working definition focuses on how the subject applies to PREP. The working definition for parent-child communication is:

Exchanges, between parents (or caregivers) and children, of information, opinions, concerns, or advice, either verbal or nonverbal (such as hugging, sharing quality time, and parental modeling). Effective communication begins during infancy and involves trust, empathy, honesty, sharing of accurate information, and willingness to listen and participate in a two-way conversation. Ongoing, positive parent-child communication has a critical influence on youth development, feelings of connectedness, and resiliency.

Note that relatives or trusted adults can assume the role of parent or caregiver. In fact, PREP grantee interviews revealed that several providers expanded their definition of *parents* to include trusted adults. This occurred for grantees serving Tribal youth, youth in foster care, and youth involved with the juvenile justice system, as well as others. In other instances, youth may have to navigate relationships with multiple adults who are in caregiving roles. For example, a youth in foster care may have simultaneous relationships with a foster parent and a biological parent. When possible, we have included discussion of the role of both parents and caregivers or others serving in a parental role. However, much of the research literature reviewed for this study focuses on parents and might not support expansion to other caregivers and trusted adults.

B. Overview of the model development process

The study team developed each APS through a multi-step process (described in more detail in Chapter II). First, they conducted a review of the research literature on each individual APS. Then they held semi-structured interviews with representatives of PREP grantees and providers to understand how they covered each APS. Finally, the team solicited feedback on each APS from additional experts and stakeholders through a series of conference calls and semi-structured interviews. Throughout development, staff from FYSB and OPRE provided feedback on the process, and on the evolving content of the developing conceptual models. Next, the study team describes the process of developing the conceptual model for parent-child communication.

Research literature review. The study team started by conducting a targeted review of the research literature on parent-child communication. They systematically searched, screened, and reviewed articles and studies, and then extracted and summarized findings using a template that included sections for each intended component of the parent-child communication conceptual model. In total, for parent-child communication, the team reviewed 47 documents, published from 2002 through 2016: five research literature reviews or meta-analyses, 25 empirical studies, four program evaluations, and 13 other articles (such as resource guides, fact sheets, and research briefs). Among the documents that indicated a description on the population of youth, 26 focused on adolescents (ages 13–19), and three focused on young

Primary keywords: Parent-child communication

Secondary keywords: Conversation, communication, parent-child relationships, sexual decision-making, sexuality, parents' beliefs about sex, youth sexual development, parental monitoring, knowledge of parents' expectations, knowledge of reproductive health, programming

adults (ages 20–30).²¹ (See Appendix A for a list of references by chapter, and Appendix B for detailed tables describing the literature review process.)

Interviews with PREP grantees and providers. The study team interviewed existing PREP grantees and providers about their APS programming and implementation. The interviews addressed APS program design and implementation, curricula or materials used to cover the APSs, and youth receptivity to APS programming. Altogether, the team spoke with 26 respondents from 19 states, across 25 PREP grantees. Respondents represented 16 State PREP, seven Competitive PREP, and two Tribal PREP grantees.²² On average, respondents reported covering four APSs in their programs ranging from the required minimum of three subjects to as many as six.

Fifteen grantees interviewed said they covered parent-child communication

Expert and stakeholder feedback. The study team engaged four groups of experts and stakeholders to provide feedback on the models. These people reviewed the models to ensure that they included all relevant theory and research on the topics, and that the topics could enhance or expand PREP outcomes if operationalized as described. Experts and stakeholders represented four groups: (1) experts with content knowledge on specific APSs; (2) State PREP, Competitive PREP, and Tribal PREP grantees; (3) representatives of federal agencies that work on adolescent pregnancy prevention or youth programming related to the APS; and (4) representatives of selected external organizations involved with adolescent pregnancy prevention or youth programming related to the APS.

C. Parent-child communication conceptual model

Figure VIII.1 shows the conceptual model. The definition of parent-child communication and the theory of change are at the top, above the model. The model includes precursors that influence youth who participate in parent-child communication instruction as part of PREP, such as developmental tasks and risk and protective factors. It also identifies topics for inclusion in programs that address parent-child communication, design and implementation features for PREP programs, and outcomes that might be affected by offering this programming. Outcomes are presented as enhanced and expanded for the PREP program. Enhanced outcomes refers to changes to the outcomes related to the prevention of pregnancy and STIs among youth targeted by PREP: sexual activity; contraceptive use; and incidence of pregnancy and STIs. Expanded outcomes refers to changes in outcomes not related to the prevention of pregnancy and STIs among youth when content, lessons, or instruction for parent-child communication are added to PREP. Sections D through H describe each component of the conceptual model in Figure VIII.1, expanding on information in the figure based on the supporting literature. For some components of the conceptual model, the text presents additional detail beyond what is included in the figure.

²¹ Note that most of the studies reviewed showed associations rather than causal relationships; findings that report correlations cannot be used to infer causality.

²² As reported in the 2017-2018 PREP performance measures, there are 51 State PREP, 20 Competitive PREP, and eight Tribal PREP grantees.

D. Precursors

The conceptual model starts with three sets of precursors for parent-child communication: developmental tasks, risk factors, and protective factors. Some individual, peer, family, school, and community factors interact and influence how youth develop. These contextual factors often reflect characteristics and experiences that youth bring to a program, but they are not factors that programs should or can expect to change through youths' participation in programming. While not included in the conceptual model figure, programs should consider these factors for their target population and recognize that their relevance may vary, depending on the APS. For parent-child communication, contextual factors to consider are youth and parent demographics (Maria et al. 2014; Kirby and Lepore 2007) and economic characteristics (Kirby and Lepore 2007), parent-child gender dynamics (Afifi et al. 2008; Harris et al. 2013), family cultural beliefs and customs (Afifi et al. 2008; Guilamo-Ramos and Bouris 2008), family complexity (such as non-traditional households) (Kirby and Lepore 2007) and youth sexual orientation (Thoma and Huebner 2014). In some cases, contextual factors can encourage youth to avoid negative or risky behaviors, and in other circumstances, these factors may place youth at higher risk for involvement in activities that contribute to poor developmental and behavioral outcomes. Further, certain individual-level factors (such as age, grade level, or sex) can moderate youths' experiences in the program and affect their outcomes.

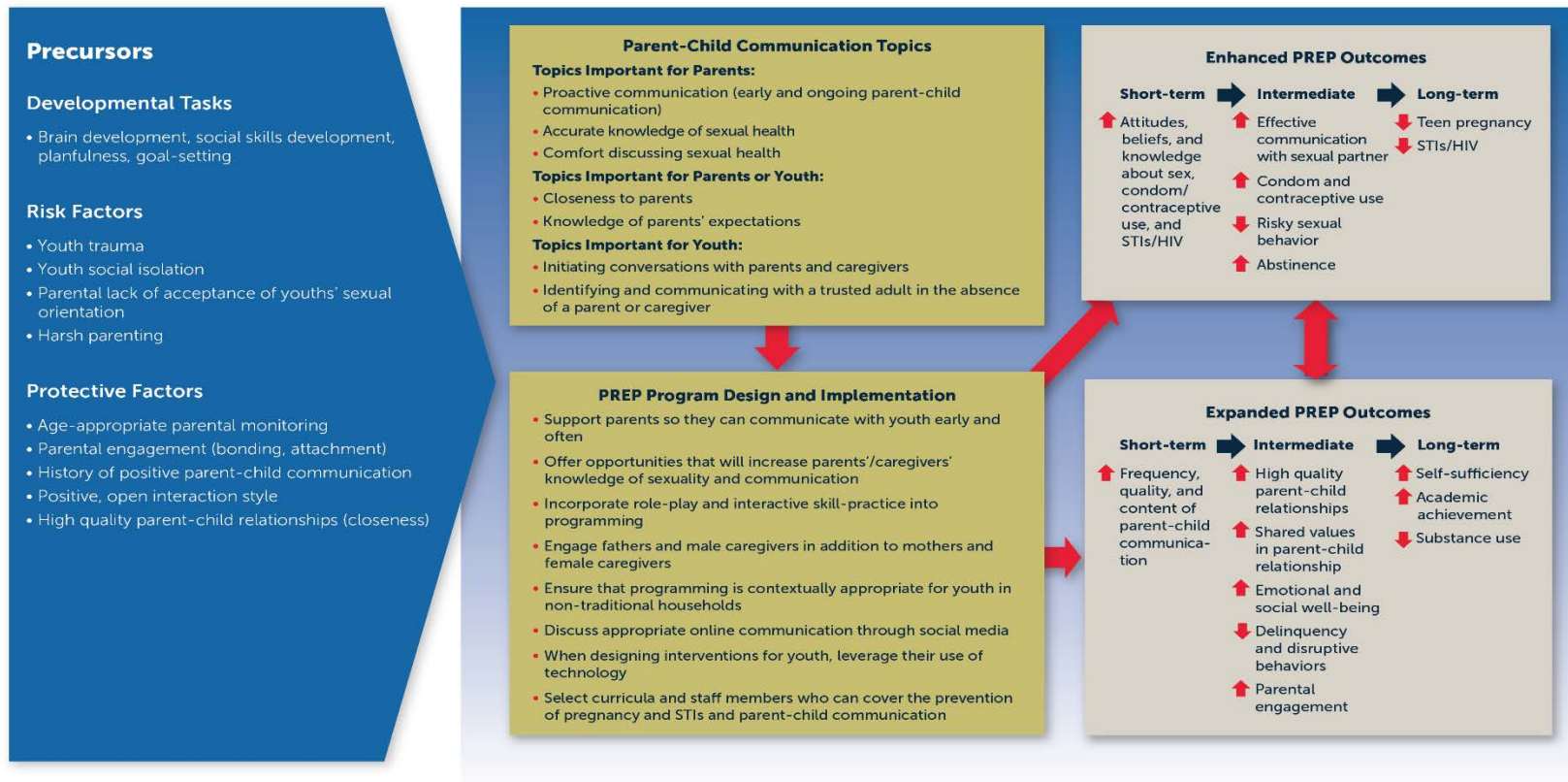
The team included developmental tasks to recognize that adolescents start at different places and progress at different rates through expected trajectories that occur in interconnected social, emotional, cognitive, and physical domains. Risk factors make youth more likely to engage in negative behaviors or harder for them to develop strengths, while protective factors make youth less likely to engage in negative behaviors, mitigate risks, and promote resilience. Although not specified in the model, promotive factors enhance positive development generally among youth, regardless of any individual, familial, or community risk factors. Promotive factors overlap with protective factors (for example, positive family relationships), but are more generally beneficial for all youth, whereas protective factors come into play in the context of risk (National Research Council and Institute of Medicine 2009). Examples of promotive factors include ethnic identity, social support, and prosocial involvement.

Developmental tasks. The brain continues to develop, not only in adolescence, but all throughout life, contributing to ongoing refinement of social skills, the ability to plan for the future, and goal-setting. Brain development during adolescence enhances the capacity to think abstractly, self-regulate emotions, and take the perspective of others, allowing youth (more so than younger children) to establish relationships with open communication, trust, and reassurance. These enhanced social skills are important, because adolescents continue to widen their social circles and spend more time with peers. At the same time, adolescents still depend on parents, guardians, and caregivers for care, affection, and help learning about effective decision making.

Figure VIII.1. Parent-Child Communication Conceptual Model

Parent-child communication is exchanges, between parents (or caregivers) and children, of information, opinions, concerns, or advice, either verbal or nonverbal (such as hugging, sharing quality time, and parental modeling). Effective communication begins during infancy and involves trust, empathy, honesty, sharing of accurate information, and willingness to listen and participate in a two-way conversation. Ongoing, positive parent-child communication has a critical influence on youth development, feelings of connectedness, and resiliency.

Theory of Change: PREP programs should address parent-child communication as a component of the parent-child relationship. Providing youth and their parents and caregivers with education, guidance, and skills on how to communicate openly about sexual health may lead to improvements in adolescents' enhanced and expanded outcomes. By teaching and encouraging positive and proactive communication, PREP programs may influence the beliefs and behaviors of youth, and their parents and caregivers, related to open, accurate, and age-appropriate communication about sexual behaviors, contraception, and decision making. Enhanced parent-child communication may help improve youth decision making about sexual health, including the prevention of pregnancy and STIs, the quality of parent-child relationships, communication skills, emotional well-being, academic achievement, and self-sufficiency.



Risk factors. Individual- and interpersonal-level risk factors play an important role in influencing the ways adolescents develop and interact with parents and other caregivers. For example, youth who have experienced trauma, such as sexual or physical abuse, from a parent or other adult may have greater difficulty than an adolescent who did not have such experiences in forming a close relationship with their parents and trusting adults (Fuxman et al. 2015). Trauma is an important individual contextual factor for PREP programs to consider, especially those that serve homeless and runaway youth and juvenile-justice involved youth. The unique situations of these program recipients could have exposed them to traumatic experiences and may have isolated them from family and other supportive persons. In addition, there has been little research on how parental mental health and trauma affect the way parents and caregivers communicate to their children about sex. Because of the strong association between parents' attitudes and beliefs and children's sexual behaviors, one can expect that issues of mental health/trauma in parents play a role in the way they communicate with their children about sex.

When youth identify as a sexual or gender minority, parent-child dynamics and communication can change in important ways. For example, family rejection can occur, communication can be strained, and secrecy regarding sexual orientation can inhibit healthy parent-child communication. Although perceived parental monitoring and parent-adolescent communication are generally protective against risky sexual behaviors, research suggests that these findings do not necessarily generalize to sexual-minority youth (Thoma and Huebner 2014). For instance, one cross-sectional study found that high levels of communication with parents about sex was associated with a greater risk of unprotected anal intercourse for young men who have sex with men. In this study, parental monitoring and communication were not, on average, protective against sexual risk or activity (Thoma and Huebner 2014), indicating that in addition to frequency, other characteristics of parent-child communication, such as quality and context, are also important.

Harsh parenting styles, whether nonverbal, psychological, or physical, can also be a risk factor. For example, a review of research literature on parental influences on adolescent decision making and contraceptive use found that adolescents with parents who had an authoritarian parenting style (demanding, but not responsive; controlling) may be more likely to turn to peers than parents for moral and informational decisions and have trouble making decisions (Commendador 2010). In addition, there is little research on the specific role of child abuse or neglect in parent-child communication; however, one can expect that negative family dynamics could play a role in inhibiting parent-child communication.

Protective factors. Several interpersonal-level factors can play a protective role in parent-child communication. Age-appropriate parental monitoring, parent-child engagement, history of positive parent-child communication, and positive parent interactions are linked to reduced youth engagement in sexual activities. For example, girls who perceive consistent parental monitoring have been found to be less likely to engage in sex than girls who perceived inconsistent monitoring (Yang et al. 2007). Research shows that parent-child closeness and communication about sex have been linked to fewer sexual risk behaviors, greater condom use, self-efficacy, and less unprotected sex among urban African American males (Harris et al. 2013). One study also found that the quality of parent-child relationships was linked to the quality of interaction between parents and children; specifically, the better the relationship between parents and children (defined as a higher level of perceived closeness and satisfaction with the parent-child

relationship), the less likely youth were to feel anxious during or avoid conversations with their parents (Afifi et al. 2008). Furthermore, the closer parents are to their children, the more likely adolescents are to communicate about sex with both their mothers and their fathers (Harris et al. 2013). Individual and interpersonal factors may also interact to shape how youth develop and engage with parents, guardians, or other adult caregivers. For example, one study found that youth reporting high levels of parent-child communication and parental monitoring had the lowest incidence of pre-intimate behaviors (kissing, touching) that are often precursors to sexual activity. The findings suggest that parent-child communication is more protective in combination with high levels of age-appropriate parental monitoring (Maria et al. 2014). However, PREP grantees noted that engagement may be challenging because of the limited availability of parents and caregivers.

Adolescents in PREP programming may have different experiences with parental care, affection, and guidance. Studies have found that parents play a large role in influencing their children's decision making, especially when it concerns values. A study of youth ages 12–19 found that 38 percent identified their parents as the source that most influenced their sexual behavior, outweighing their peers in some cases (Aspy et al. 2007). Parents and caregivers can use this influence to provide developmentally appropriate guidance that teaches youth to problem-solve, including how to create plans to set boundaries with peers, set realistic goals, and identify action steps for accomplishing them.

E. Theory of change for parent-child communication

Theory of change

PREP programs should address parent-child communication as a component of the parent-child relationship. Providing youth and their parents and caregivers with education, guidance, and skills on how to communicate openly about sexual health may lead to improvements in adolescents' enhanced and expanded outcomes. By teaching and encouraging positive and proactive communication, PREP programs may influence the beliefs and behaviors of youth, and their parents and caregivers, related to open, accurate, and age-appropriate communication about sexual behaviors, contraception, and decision making. Enhanced parent-child communication may help improve youth decision making about sexual health, including the prevention of pregnancy and STIs, the quality of parent-child relationships, communication skills, emotional well-being, academic achievement, and self-sufficiency.

The theory of change for parent-child communication builds on the foundation of the parent-child relationship, along with other precursors that influence the youth who participate in PREP. A key guiding principle is that parents and caregivers, in addition to peers, can have a strong influence on youth sexual behaviors (Aspy et al. 2007; Harris et al. 2013). Data indicate that the influence of parents is stronger than that of friends, teachers, or the media (National Campaign to Prevent Teen and Unplanned Pregnancy 2016). Therefore, providing both youth and parents with the knowledge and skills to communicate openly with each other about sexual health may enhance the effectiveness of PREP programming. Research studies on the value of parent-child communication tend to focus on mothers over fathers. For instance, a study that assessed parental influences on sexual risk behaviors among African American boys found that mothers were more likely than fathers to engage in parent-child sexual communication (Harris et al. 2013). Yet fathers also are important influences on their children and may have a unique influence on youths' sexual behaviors. For example, in a study on mother-child and father-child sexual communication among adolescents, fathers' sexual attitudes were the best overall predictor of

adolescent sexual attitudes and behavior (Tubre 2007). Another study, of racially and ethnically diverse women ages 19–21, found that father-daughter sexual communication delayed daughters' onset of sexual activity and decreased how often daughters had sex (Hutchinson and Cederbaum 2011). All parents and caregivers should be considered in PREP programs that address parent-child communication.

In addition to providing education about the prevention of pregnancy and STIs for parents/caregivers and youth and teaching positive communication skills, PREP programs that address parent-child communication may encourage parents/caregivers to be more actively engaged in their children's lives. Positive parental engagement (defined by parents' intentions, beliefs, and perceptions of their relationship with their child) builds a foundation of trust that facilitates honest communication and can influence behavior and decisions, which is especially important as children transition into adolescence. Building on this principle, the theory of planned behavior suggests that to increase the frequency of parent-adolescent communication about sex and sexuality, practitioners must first secure parents' willingness to have such conversations. Such willingness is influenced by parents' attitudes toward discussing these subjects with their children, parents' beliefs about how their children will engage in the conversation, and the level of control parents think they have over communication. For example, parents' beliefs that discussing sex encourages young people to engage in it may inhibit parents from having these conversations.

Decision-making theories are also relevant to the theory of change for parent-child communication, and research on decision making is evolving to account for adolescent development and contexts. For programs that want to understand and shape adolescent decision making, two broad approaches are worth consideration: (1) focus on the factors that shape behavior goals and decision making, such as social pressures, including both approval or disapproval from important persons in the adolescent's life (such as parents) and perceptions of what peers are doing; and (2) focus on the steps in the decision-making process and on the skills needed to analyze decisions. An example would be role-playing a situation that requires an adolescent to make a quick but high-risk decision prior to facing the situation in real life (National Research Council and Institute of Medicine 2004). Regardless of the approach a program draws on, a key takeaway is that adolescent decision making is a multi-step process influenced by many internal and external factors. Therefore, programs must consider how parent-child communication could affect factors that influence the choices and decision-making skills of their target population.

Research finds lasting benefits of improving the quality of parent-child communication (for example, making communication clear and explicit), specifically for outcomes related to the prevention of pregnancy and STIs (Aspy et al. 2007; Harris et al. 2013). Improved communication between parents and children has positive implications for the outcomes of their children, such as fewer risky sexual behaviors, increased contraceptive use, and reduced adolescent pregnancy (Commendador 2010). Positive parent-child communication during adolescence can also lead to better parent-child relationships and improved emotional well-being, academic achievement, and self-sufficiency.

F. Parent-child communication topics

The timing, content, context, and frequency of parent-child communication are important topics to consider, as they are relevant not only for parents, but also for other caregivers or trusted adults. Therefore, program staff should consider the diversity of caregiver-child relationships when integrating parent-child communication topics.

Topics for parents and caregivers

- **Proactive communication** occurs early (prior to or during adolescence) and often, and not just in response to behaviors (for example, discussing sexual behaviors before engagement in them begins). Studies that focus on the positive influence of frequent parent-child communication and parental monitoring among younger adolescents demonstrate the importance of parents and caregivers engaging in communication with their children before the children begin sexual activity (Fuxman et al. 2015; Maria et al. 2014). Programs should emphasize the importance of having proactive communication with their youth to best influence their outcomes related to the prevention of pregnancy and STIs.
- **Accurate knowledge of sexual health** refers to parents and caregivers being able to convey correct information about topics such as the proper avoidance of STIs and pregnancy) and, when necessary, being able to help adolescents find services. One study suggests that parents who know less about sexual health communicate less frequently with their children, which highlights the importance of giving parents accurate sexual health information (Weiss 2011). Grantees can develop content or use existing resources to confer a working knowledge of sexual health to parents and caregivers so that they can discuss the topic properly with their children. Programs can emphasize the role they play in communicating values and expectations, as well as in encouraging and supporting access to services. Further, programs can help parents and caregivers recognize the value of having other well-qualified program staff teach their adolescent children correctly.
- **Comfort discussing sexual health** refers to parents' and caregivers' willingness to discuss (and their ease in discussing) sexual health topics with their adolescents. Findings from an observational study on parent-child communication suggest that adolescents exhibit fewer anxious and avoidant behaviors when their parents are receptive, informal, and composed during conversations about sexual health (Afifi et al. (2008). There may be gender differences in parents' comfort discussing sexual health. Mothers tend to be the main communicators about sex, whereas fathers tend to talk with their children about other topics (Wikkeling-Scott 2011). However, an evaluation of an intervention to promote mother-child and father-child communication about sex found that fathers, not mothers, had more frequent conversations with youth about sex following program participation (Evans et al. 2009). This suggests that fathers play an important role in communicating information about sex but—because of discomfort, social expectations, or some other reason—may need a “push” to talk with their children about it. Although most programs focus only on mothers, programs should work with both female and male parents and caregivers to build their comfort discussing sex with their children. Being comfortable discussing sexual health will facilitate these conversations, but programs should encourage parents and caregivers to talk with their children about sex honestly

and often even when they are *not* comfortable. In addition to conversations about sex, parents and caregivers can discuss values and expectations more broadly with youth. They can also strategically pick appropriate settings to have these conversations.

Topics for parents or youth

- **Closeness to parents** refers to youth reports of warm and effective communication with their parents/caregivers. Several studies suggested that youths' feelings of closeness to their parents influenced their sexual risk behaviors (Harris et al. 2013; Afifi et al. 2008; Usher-Seriki et al. 2008). Programs should offer youth opportunities to increase their sense of closeness to their parents/caregivers and teach them strategies for enhancing these bonds. In addition, parents and caregivers should work on continually strengthening bonds with their children through setting the stage for effective communication. Program providers should also recognize that some family relationships are complex. If, for example, parent-child dyads have poor or no communication about less-sensitive topics, it may be difficult to address a challenging topic like sexuality. If the parent-child relationship is nonexistent or turbulent, other trusted adults can assume the role of communicator.
- **Knowledge of parents' expectations** refers to youths' awareness of their parents' and caregivers' expectations of appropriate attitudes and behaviors. A study that examined parents' knowledge and expectations of their children's sexual behaviors found that parents' expectations predicted sexual outcomes. For example, youth were more likely to have negative sex-related outcomes when parents believed they were engaging in related behaviors (Mollborn and Everett 2010). Therefore, programming must provide accurate information for parents and caregivers to share with their children and must emphasize that youth should maintain an open dialogue with their parents/caregivers and learn their expectations, values, and perceptions.

Topics for youth

- **Initiating conversations with parents and caregivers** refers to skills that youth can use to start conversations about sexual health, including prevention of pregnancy and STIs. Grantees reported difficulty engaging parents and caregivers in PREP programming. Grantees noted that when programs are able to communicate only with youth, it is important to empower youth by providing them with the skills they need to initiate important conversations with parents and caregivers. Programs can do this by implementing role-playing exercises or by sending youth home with "assignments" that require parental input.
 - **Identifying and communicating with a trusted adult in the absence of a parent or caregiver** can benefit youth who do not have a strong relationship or regular communication with a parent or caregiver. This can be due to a variety of factors, such as parental incarceration or homelessness and situations where a youth is involved in the child welfare or juvenile court system. Grantees noted that programs can encourage youth to identify trusted adults in their life, which may include relatives, program staff, or school staff. Programs can then guide youth in having discussions with these adults about topics related to sexual health.
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G. Program design and implementation

PREP grantees must consider how and when to provide parent-child communication content within their PREP programs. Designing and implementing this APS will require that grantees choose who should deliver the content, when to deliver it, and how to teach it so that youth can absorb it to the greatest extent possible. One way to improve parent-child communication is to support and educate parents, which will in turn inform youth outcomes. This may not always be possible, though, given programs' structure or youths' relationships with parents.

The study team identified eight design considerations for parent-child communication:

1. **Support parents so they can communicate with youth early and often (i.e., proactive communication).** Reduce parental barriers to communication and provide parents and caregivers with guidance on how to engage in positive communication and non-judgmental listening with their youth. One PREP grantee developed a parent toolkit that included pamphlets and articles on topics such as the right time to talk to your adolescent about sensitive topics; fears parents may have about communicating with their adolescent about their health; and the basic laws of consent and how they affect the adolescent. They also developed a list of local resources for parents related to food or clothing.

Programs can find and use existing resources or develop their own content to share with parents and caregivers. Guidance should be delivered in a simple and easily accessible format and contain concrete and practical advice. For example, explain that parents and caregivers can show they care about their child through verbal or nonverbal communication, such as texts and emails. Ensure that parents realize how important their thoughts and perspectives are to their children (Albert 2012; National Campaign to Prevent Teen and Unplanned Pregnancy 2008). Also explain to parents and caregivers that although they may never be completely comfortable discussing some things, they must get to a point where they can have honest conversations despite discomfort. Discussions on sex and parental monitoring (i.e., parental awareness of children's whereabouts and friendships) should begin early, well before youth are engaging in sexual activity (Aspy et al. 2007; Beckett et al. 2010; Fuxman et al. 2015; Lohman and Billings 2008). However, regardless of whether youth are sexually active, regular and direct communication is important to encourage parents to be calm and to reduce adolescent anxiety (Afifi et al. 2008; National Campaign to Prevent Teen and Unplanned Pregnancy 2008).

Communication is more protective when combined with parental monitoring. Specifically, youth with high levels of both parent-child communication and age-appropriate parental monitoring report lower levels of "pre-coital" sexual behaviors than youth with high communication and low monitoring (Maria et al. 2014). Other barriers to communication include perceptions that children are too young, uncertainty on how to start conversations, limited knowledge, and discomfort (Hartmann et al. 2016; Malacane and Beckmeyer 2016; Wilson et al. 2010). Parents find it easier to talk if they have a strong relationship with their child, take advantage of opportunities for discussion, and begin age-appropriate conversations when children are young (Wilson et al. 2010).

2. **Offer opportunities that will increase parents'/caregivers' knowledge of sexuality and communication (i.e., accurate knowledge of the prevention of pregnancy and**

STIs). Consider delivering program content directly to parents/caregivers, or to them and youth together. Clear, direct conversations on sexual health require that parents and caregivers be knowledgeable or know trustworthy resources to turn to for information. When offering opportunities to parents and caregivers to increase their knowledge of sexuality and communication, programs should ensure that messages are aligned with their curricula and are appropriate for the community and age range of youth served. Programs might serve youth only, parents and caregivers only, or both youth and parents/caregivers. Because parent-child communication is a relational practice that involves at least two people and two perspectives, programs must consider carefully how best to promote positive parent-child communication if only youth or only parents/caregivers participate. For example, one PREP grantee created a “parent involvement network.” During events, they educate parents on ways to communicate with their adolescents and shield them from risk. They also have a radio broadcast for parents every weekend. Another grantee hosted parent events, such as a “restaurant night” to discuss parents’ expectations of their children, as well as a parent-child retreat focused on communicating on difficult topics. (At the next retreat, they will discuss substance abuse and youth suicide.) They also bring the parents and students together and use activities to help them consider the style of communication they want the family to have.

3. **Incorporate role-play and interactive skill-practice into programming (i.e., comfort discussing the prevention of pregnancy and STIs health).** By delivering content directly to parents and caregivers, programs can provide opportunities to practice communication skills (Sutton et al. 2014). Engaging parents and caregivers in programs can be challenging, but programs that offer information only to parents and caregivers and do not provide an opportunity to hone communication skills are often less effective than programs that combine a focus on parents and caregivers and youth (Terzian and Mbwana 2009). In addition, the content of discussions is strongly associated with youths’ attitudes and behaviors (Isaacs 2012). For example, teaching youth how to set clear rules and discussing the importance of delaying sex are associated with youth being less likely to initiate sex. Similarly, when parents discuss birth control methods and STIs, youth who do engage in sex are more likely to use birth control (Aspy et al. 2007; Usher-Seriki et al. 2008). Further, ensuring that parents can clearly express their expectations for their youth must also be considered (Mollborn and Everett 2010). Program facilitators can serve as role models for these conversations designed to help families initiate dialogue and offer opportunities for skill-building, as well as provide parents with developmentally appropriate resources that they have created or have borrowed from other sources (Aspy et al. 2007; Widman et al. 2016; Teitelman et al. 2008).
4. **Engage fathers and male caregivers in addition to mothers and female caregivers.** Youth report receiving little information about sexuality and dating from their fathers, which suggests that programs should ensure that fathers are comfortable with sexual communication, reduce their barriers to communication, and provide them with opportunities to build skills (National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention 2013; Hutchinson and Cederbaum 2011). Although much of the research on parent-child communication has focused on the mother-child relationship (Commendador 2010; Harris et al. 2013; Hutchinson and Cederbaum 2011), researchers have found that father-child communication and monitoring can also delay sexual initiation and increase contraception/condom use (Kalina et al. 2013; Teitelman et al.

2008). In a study of father-daughter communication about sex, many daughters reported that their fathers shared their philosophy on sex and provided support, thus promoting healthy behaviors and choices. However, daughters also wished that their fathers had discussed (1) insights about understanding men; (2) modeling openness and comfort with sexual communication; and (3) more information about specific sexual topics, family values, and expectations (Hutchinson and Cederbaum 2011).

5. **Ensure that programming is contextually appropriate for youth in non-traditional households.** Many youth do not live with both their mother and father. Therefore, programming should be appropriate for all types of family formations, including single parents, step-parents, foster parents, grandparents, and other supportive adults. Although the research literature on the influence of positive communication between other supportive adults and youth is limited (Fuxman et al. 2015), it seems likely that many features of effective parent-child communication will be applicable to other guardians, caregivers, or trusted adults.
 6. **Discuss appropriate online communication through social media.** Online and mobile communication presents an opportunity for technology-based interventions around the prevention of pregnancy and STIs to reach a large number of parents and adolescents nationwide. Research indicates that families are generally motivated to receive this type of information through online and mobile devices as a result of their accessibility, widespread use, and ability to deliver large quantities of information (Jones et al. 2014; Kachur et al. 2013). Although social media and the use of other technology are important means of communication in youth relationships and potentially in families (Lenhart et al. 2015), online communication can also expose youth to inappropriate content or behaviors, such as graphic sexual imagery and unwanted sexual solicitations. Exposure to this online content is correlated with increased sexual risk (Kachur et al. 2013). Several PREP grantees reported teaching lessons or leading discussions about social media or technology as part of their PREP programming. Topics included identifying social media outlets youth are using and the most appropriate use of each. Programs have the opportunity to teach youth about the dangers of online communication, especially with people they do not know. Youth may also use online communication and social media to connect with a parent or caregiver. Programs may consider discussing appropriate online communication specifically with parents or caregivers as well.
 7. **When designing interventions for youth, leverage their use of technology.** Many programs have responded to the increase in youth online activity by incorporating more technology into their programming. Preliminary evidence suggests that using social media and text messaging to reach youth can increase knowledge regarding the prevention of STIs (Jones et al. 2014). A few PREP grantees used social media to help deliver content or engage participants. Two respondents delivered some programming with iPads or through a web-based format. One described using Snap Chat, Facebook, and Instagram to engage participants and inform them of additional activities. This respondent said that if youth followed their social media posts and commented on them, it showed the program to be “cool enough” to engage youth. Interventions that utilize digital and social technology can increase their accessibility by allowing youth to access content at convenient times, anonymously, and privately (Strasburger and Brown 2014).
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8. **Select curricula and staff members who can cover both the prevention of pregnancy and STIs and parent-child communication.** PREP grantees indicated that they typically used a curriculum for the prevention of pregnancy and sexually transmitted infections among youth that also included APS content. In addition, most grantees used the same staff to deliver both types content. Staff who deliver content on both pregnancy and STI prevention and parent-child communication may be more adept at connecting other topics important for youth health and well-being and fostering parent-child communication. For example, several PREP grantees noted that they encourage parent-child communication beyond health topics related to the prevention of pregnancy and STIs, including substance abuse, youth suicide, sleep habits, home responsibilities, and events that shaped family history (for example, historical trauma was covered by a Tribal PREP program). One grantee also encouraged youth to communicate to their parents about what it was like for them as adolescents and the differences they faced then compared to now.

H. Outcomes

The reviewed research literature suggested several outcomes that might be realized by addressing parent-child communication. Most of the literature reported on correlational, rather than causal, relationships between variables. Although evidence may indicate that the presence of one variable predicts a particular outcome, future research and rigorous evaluation studies are needed before a causal relationship can be made. The study team organized outcomes into two categories—enhanced and expanded—based on whether they focus on changes to outcomes not related to the prevention of pregnancy and STIs among youth (expanded) or outcomes related to the prevention of pregnancy and STIs among youth targeted by PREP (enhanced). The model is limited to outcomes supported by the literature review.

The team further organized outcomes into short-term, intermediate, and long-term. *Short-term* outcomes are those one would expect to see directly following a program. Typically, such outcomes include initial changes in knowledge and attitudes but can also include immediate changes in behavior. *Intermediate* outcomes, the step between short- and long-term outcomes, can include improved skills or changes in behavior that result from the acquisition of new knowledge and skills. Programs can expect to see these outcomes six months to a year after program completion. *Long-term* outcomes are those we would expect to see a year or more after program completion, such as ongoing pregnancy and STI prevention and preparation for adulthood care. Depending on when youth attend the program, this could be during middle or high school or even after high school and continuing into young adulthood.

Enhanced outcomes. Programs that incorporate parent-child communication in PREP might influence outcomes related to the prevention of pregnancy and STIs among youth targeted by PREP. In the short term, when parent-child communication is improved, youth attitudes, beliefs, and knowledge about sex, condom/contraception use, and STIs/HIV are also improved (Child Trends What Works 2011; Harris et al. 2013; Niego et al. 2008; National Campaign to Prevent Teen and Unplanned Pregnancy 2012). For the intermediate outcomes, improved parent-child communication builds skills for communicating more effectively with sexual partners (Child Trends What Works 2011; Isaacs 2012) and can lead to reduced involvement in risky sexual behaviors, including fewer sexual partners, and an increased likelihood of remaining abstinent and delaying sexual initiation (Commendador 2010; Yang et al. 2007). In addition, improved

attitudes, beliefs, and knowledge in turn improve sexual behaviors as an intermediate outcome (increased condom and contraceptive use, and getting HPV vaccines) and in the long term (reduced pregnancy and STIs/HIV) (Kirby and Lepore 2007; Wasik et al. 2014).

Expanded outcomes. The research literature suggests that addressing parent-child communication in PREP may result in changes to outcomes beyond youths' sexual health. One of the most immediate outcomes desired is to increase and improve the frequency, quality, and content of parent-child communication about topics such as birth control and condoms, values and expectations about sex, consequences of early sexual initiation, and peer pressure (Isaacs 2012). This enhanced communication builds upon, and in turn contributes to, higher quality parent-child relationships and shared values (an important part of sexual socialization) between youth and their parents as intermediate outcomes (Harris et al. 2013). The quality of the parent-child relationship includes closeness, warmth, trust, and satisfaction with the relationship. Focusing on parent-child communication is also expected to improve emotional and social well-being among youth as an intermediate outcome. For example, youth who are close to their parents will have lower anxiety when discussing sex with them than youth who are not close (Afifi et al. 2008). Similarly, a review of multiple random assignment evaluation studies found that frequent and positive parent-child communication and improved parent-child relationships can help youth avoid risky behaviors; specifically, interventions that have provided parents with skills training related to increasing monitoring and improving communication had positive impacts on delinquency, substance use (drugs and alcohol), and disruptive behavior (Terzian and Mbwana 2009). Long-term outcomes such as self-sufficiency and academic achievement may also be achieved through positive parent-child communication. For example, increasing parent communication skills can help parents convey expectations about areas outside sexual health topics, such as academic expectations, which can encourage success in the classroom and foster more involvement in the child's school life (Centers for Disease Control and Prevention 2009).

I. Conclusions

Enhancing parent-child communication has important implications for adolescents' sexual health, their relationship with their parents and caregivers, and other outcomes that contribute to long-term well-being and self-sufficiency. Programs should address four important aspects of parent-child communication: (1) timing, (2) content, (3) context, and (4) frequency. Together, these factors help to promote positive and engaging parent-child communication and adolescent well-being.

Nevertheless, more research and evaluation on parent-child communication is needed, specifically, research on the role of fathers in communicating sexual health information to their children, and research on vulnerable populations, such as homeless and runaway youth, youth in foster care, and youth in single-parent homes. Additional research is also needed on social media and digital technology and how interactions with these platforms might influence short- and long-term outcomes for youth. Because many of the studies reviewed are cross-sectional, understanding the direction of effects can be difficult.
