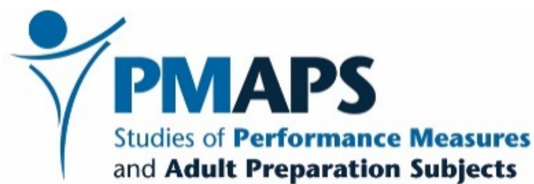
CONCEPTUAL MODELS FOR ADULTHOOD PREPARATION SUBJECTS WITHIN THE PERSONAL RESPONSIBILITY EDUCATION PROGRAM (PREP)



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VI. CONCEPTUAL MODEL FOR ADDRESSING HEALTHY LIFE SKILLS IN PREP

For the APS conceptual models study, the study team developed a conceptual model for each APS (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 such programming should be offered 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.
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> 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 healthy life skills through a schematic and supporting narrative. It starts with defining healthy life skills (Section A) and briefly describes how the study team developed the model (Section B). Sections C through H then review each model component and the supporting literature. Section I discusses conclusions and suggests areas for future research.

A. Working definition of healthy life skills

The legislation authorizing PREP provided a limited definition for each APS.[14] 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 the working definition throughout the development of the conceptual model based on reviewed

[14] https://www.ssa.gov/OP_Home/ssact/title05/0513.htm

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 healthy life skills is:

> Healthy life skills are the competencies that enable people to solve problems and deal in positive ways with challenges they face in their everyday lives. These skills include social, emotional, and cognitive skills, as well as physical and sexual health skills. Social skills focus on communication, negotiation and refusal, assertiveness, cooperation, and empathy. Emotional skills comprise self-regulation and development of personal confidence. Cognitive skills include decision making, goal setting, problem solving, and critical thinking. Physical and sexual health skills focus on making healthy life choices and can reinforce social, emotional, and cognitive skills. Adolescents can practice and build these skills in the classroom and at school—as peer leaders—and in the community, by providing service to others. Using these skills can enable adolescents to improve their emotional well-being, mental health, and social skills; decrease their involvement in risky behaviors; and improve their academic achievement.

B. Overview of the model development process

The study team developed each APS model through a multi-step process (described in more detail in Chapter II). First, the team conducted a literature review on each 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 healthy life skills.

Primary keywords: Life skills

Secondary keywords: Positive behavior, decision-making, communication, coping, adaptive behavior, self-management, self-regulation, goal-setting, risky or unhealthy behaviors, self-efficacy, self-determination, negotiation, conflict resolution, interpersonal decisions, programming, sexual health, self-awareness, critical thinking, risk-taking

Research literature review. The study team started by conducting a targeted review of research literature on healthy life skills. 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 healthy life skills conceptual model. In total, for healthy life skills, the team reviewed 41 documents, published from 1977 to 2017. These included seven literature reviews or meta-analyses, eight empirical studies, six theoretical articles, eight program evaluations, five proposed program models, and seven other documents, such as a resource guide, a checklist, a tip sheet, and study reviews. Four articles looked at target populations that included older youth: two of the literature reviews (Foxcroft and Tsertsvadze 2011; Gates 2008), one document that examined mentoring (Zand et al. 2009), and one on community service and service-learning

activities among youth (Spring et al. 2008).[15] (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. These 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.[16] On average, respondents reported covering four APSs in their programs, ranging from the required minimum of three subjects to as many as six.

Twenty-three grantees interviewed said they covered healthy life skills. Most chose it because it was relevant to their youth populations and already covered through their curriculum for the prevention of pregnancy and sexually transmitted infections among youth.

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 (1) that they included all relevant theory and research on the subject; and (2) that the proposed model could enhance or expand the 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. Healthy life skills conceptual model

Figure VI.1 shows the conceptual model for the healthy life skills APS. The definition of healthy life skills and the theory of change are at the top, above the conceptual model. The model includes precursors that influence youth who participate in healthy life skills programming as part of PREP, such as developmental tasks and risk and protective factors. The model also identifies topics for inclusion in healthy life skills programs, program design and implementation features for PREP programs, and outcomes that may be affected by offering this programming. For the PREP program, outcomes are presented as enhanced or expanded. Enhanced outcomes refers to the outcomes related to the prevention of pregnancy and STIs among youth targeted by PREP: sexual activity; attitudes, beliefs, and knowledge about sex; contraceptive use; and incidence of pregnancy and sexually transmitted infections (STIs). Expanded outcomes refers to changes in outcomes not related to the prevention of pregnancy and STIs among youth when content, lessons, or instruction related to healthy life skills are added to the PREP program. Sections D through H of this chapter describe each component of the conceptual model in Figure VI.1, expanding on information contained in the figure, based on the supporting literature. For

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

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

some components of the conceptual model, the text presents additional detail beyond what is included in the figure.

D. Precursors

The conceptual model starts with three sets of precursors for healthy life skills: developmental tasks, risk factors, and protective factors. The team included developmental tasks to recognize that adolescents start at different places and progress at different rates through identity formation, social skills development, problem-solving skills, and cognitive development. 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. Protective factors promote positive development among youth. 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 (such as positive family relationships) but are more generally beneficial for all youth, whereas protective factors come into play in the context of risk (NRC and IOM 2009). Examples of promotive factors include ethnic identity, social support, and prosocial involvement.

The risk and protective factors included in the precursors for healthy life skills are organized in accordance with the social-ecological framework, which includes individual, interpersonal, community, and societal levels (Bronfenbrenner and Morris 2006). During their transition from childhood to adolescence, youth are influenced by the individuals with whom they associate, their relationships with these individuals, and the context in which they themselves live. The social-ecological framework allows for the consideration of the complex interplay between individuals, their relationships, and community and societal factors.

Developmental tasks. The model includes developmental tasks in recognition that adolescent development is continuous, uneven, and complex. Youth continually encounter situations that help them to grow; however, they do not mature at the same rate physically, emotionally, or cognitively (Pittman et al. 2003). Generally, in early adolescence (around grades 4–8), youth further develop their self-image and their ability to think abstractly and solve problems (Mangrulkar et al. 2001). At this age, they gain increasing independence from their parents and greater control over their lives, and begin to relate to their peers in new ways (Gillespie et al. 2003). As youth move into middle adolescence (around grades 9–12), they encounter more-complex situations that require them to consider various alternatives and contemplate the short- and long-term consequences of their actions. As youth move into late adolescence (after grade 12), they continue to develop their self-identity and role in their communities and to focus more of forming intimate relationships (Pittman et al. 2003). As they age, youth learn to be more or less competent and productive in a variety of areas or skills, which might result in feelings of inferiority; these competencies, or lack thereof, can have long-term social, intellectual, and emotional consequences (Mangrulkar et al. 2001).

Figure VI.1. Healthy Life Skills Conceptual Model

Healthy life skills are the competencies that enable people to solve problems and deal in positive ways with challenges they face in their everyday lives. These skills include social, emotional, and cognitive skills, as well as physical and sexual health skills. Social skills focus on communication, negotiation and refusal, assertiveness, cooperation, and empathy. Emotional skills comprise self-regulation and development of personal confidence. Cognitive skills include decision making, goal setting, problem solving, and critical thinking. Physical and sexual health skills focus on making healthy life choices and can reinforce social, emotional, and cognitive skills. Adolescents can practice and build these skills in the classroom and at school—as peer leaders—and in the community, by providing service to others. Using these skills can enable adolescents to improve their emotional well-being, mental health, and social skills; decrease their involvement in risky behaviors; and improve their academic achievement.

Theory of Change: Healthy life skills programs develop youths' social, emotional coping, cognitive, and physical and sexual health skills—tied to relevant developmental, risk, and protective factors—and enable them to make positive choices. Using interactive teaching and learning methods, PREP programs can help youth to improve their social skills by developing effective communication, negotiation, refusal, assertiveness, cooperation, and empathy skills. In addition, programs can help youth increase their emotional coping skills so that they can increase their self-regulation and improve their personal confidence. Programs can also help youth enhance their cognitive skills, such as decision-making, problem-solving, and critical-thinking skills; physical health skills, such as nutrition and physical fitness decisions; and sexual health skills, such as knowledge of pregnancy and STI prevention, negotiation and refusal skills, and accessing of health services. Improved life skills can lead to improved emotional well-being, mental health, social skills, and academic achievement, and reduced involvement in risky behaviors such as substance use and delinquency. These positive outcomes can in turn lead to increased abstinence, improved condom and other contraceptive use, reduced risky sexual behavior (such as unprotected sex), and a decrease in adolescent pregnancy and STIs/HIV.

Risk factors. Risk factors make youth more likely to engage in negative behaviors or harder for them to develop strengths. The model includes, at the individual, interpersonal, community, and societal levels, risk factors that may influence youth. At the individual level, youth are more likely to undertake risky behaviors if they (1) lack adequate, accurate knowledge of potential harmful effects of these behaviors; (2) hold inaccurate beliefs about how socially undesirable it is to undertake these behaviors, and about the prevalence of such behaviors; and (3) possess traits and characteristics (such as poor self-concept, anxiety, impulsivity) that make them more susceptible to peer or media pressure (Botvin and Griffin 2015). Interactions and relationships with peers and family members also influence youth as they develop, including experiencing adverse childhood events, such as trauma and physical or sexual abuse. As youth move into middle adolescence, they spend more time with peers, including increased interactions with potential romantic partners, and become involved in more complex relationships (Mangrulkar et al. 2001; Gillespie et al. 2003). As they broaden their social sphere, youth confront additional risk factors. Peers and family members who are currently, or were previously involved, in risky behaviors might influence youth toward substance use, risky sexual behavior, delinquency, and violence (such as fighting or dating violence) (Botvin and Griffin 2015; Gillespie et al. 2003). Peer influence can also be a strong predictor of early sexual initiation (Graves et al. 2011). Youth who experience dating violence or sexual coercion may be more likely to engage in negative sexual behaviors and are at higher risk teen pregnancy (Silverman et al. 2001; Kirby 2007). If youth grow up in dangerous and/or under-resourced environments, they may develop coping strategies to navigate their community, such as negative perceptions of school and teachers or hyper-masculinity, which can lead to delinquency and to becoming involved in criminal or gang-related activity (Spencer and Tinsley 2008). Youth might also be negatively influenced by mass media and the behavior of their role models related to smoking, drinking, or drug use (Botvin and Griffin 2015).

Protective factors. Protective factors dissuade youth from engaging in negative behaviors, mitigate risks, and promote resilience. Youth can benefit from interactions with peers and family members to foster protective factors, such as (1) promoting positive family values, close family relationships, and parental monitoring (Spencer and Tinsley 2008); (2) being accepted by one's peers (Gfroerer et al. 2013); and (3) observing peers who make healthy behavioral choices (Graves et al. 2011). If youth witness positive practices—such as opportunities for prosocial involvement, skills development, and affirming recognition—modeled in schools and organizations, are involved in community service, or are closely connected to schools or their community, they can learn positive coping methods, models for positive behavior, and strategies to solve problems and achieve their goals (Spencer and Tinsley 2008). In addition, connecting with positive role models in school can lead to greater resilience, and better academic achievement, motivation, and success (Gfroerer et al. 2013). Finally, youth can be positively influenced by mass media when role models in the media promote positive attitudes and expectations about substance abuse (Botvin and Griffin 2015).

E. Theory of change for healthy life skills

Theory of change

Healthy life skills programs develop youths' social, emotional coping, cognitive, and physical and sexual health skills—tied to relevant developmental, risk, and protective factors—and enable them to make positive choices. Using interactive teaching and learning methods, PREP programs can help youth to improve their social skills by developing effective communication, negotiation, refusal, assertiveness, cooperation, and empathy skills. In addition, programs can help youth increase their emotional coping skills so that they can increase their self-regulation and improve their personal confidence. Programs can also help youth enhance their cognitive skills, such as decision-making, problem-solving, and critical-thinking skills; physical health skills, such as nutrition and physical fitness decisions; and sexual health skills, such as knowledge of pregnancy and STI prevention, negotiation and refusal skills, and accessing of health services. Improved life skills can lead to improved emotional well-being, mental health, social skills, and academic achievement, and reduced involvement in risky behaviors such as substance use and delinquency. These positive outcomes can in turn lead to increased abstinence, improved condom and other contraceptive use, reduced risky sexual behavior, such as unprotected sex, and a decrease in adolescent pregnancy and STIs/HIV.

The theory of change for healthy life skills builds from social learning theory (Bandura and Walters 1977) and problem behavior theory (Jessor and Jessor 1977). As youth progress through adolescence, they continue to develop their self-image, attitudes, and values, and are increasingly able to think critically and solve problems (Mangrulkar et al. 2001; Gillespie et al. 2003). Social learning theory suggests that youth learn how to behave from (1) instruction provided and behavior modeled by parents, teachers, and other role models; (2) observation of their peers, family members, and others; and (3) social interaction with adults and peers (Mangrulkar et al. 2001). Problem behavior theory posits that youths' negative behaviors (such as substance use, risky sexual behavior, and delinquency) are influenced by their values, beliefs, and attitudes, as well as those of their family and peers (Mangrulkar et al. 2001; Gillespie et al. 2003). Participating in healthy life skills programming enables youth to witness positive behavior and learn coping strategies that support development of self-efficacy skills (that is, confidence in one's ability to act appropriately in a given situation), ultimately helping them to set specific behavioral and academic goals they can achieve (Mangrulkar et al. 2001).

Building on these theories, healthy life skills programming should aim to improve youths' social, emotional coping, and cognitive skills. Social or interpersonal skills include effective communication—for example, being assertive in voicing their opinions and refusing to participate in potentially harmful activities. Emotional coping skills include strategies to cope with and manage stress and anxiety, and monitor these feelings. Cognitive, or interpretative, skills focus on building youths' critical analysis skills, including problem solving, decision making, and understanding the consequences of one's actions (Mangrulkar et al. 2001; Gillespie et al. 2003).

Programming related to physical and sexual health skills can reinforce key social, emotional coping, and cognitive skills. For example, sports-based activities can help build self-esteem and self-efficacy (Family and Youth Services Bureau [FYSB] 2016). Physical health skills help youth make healthy choices with respect to nutrition and healthy eating, body image, tobacco use, physical fitness, and participation in sports. Sexual health skills (1) focus on knowledge of sexual development, STIs and HIV/AIDS, conception and pregnancy, and (2) help youth make healthy choices related to dating and relationships, contraception, and accessing sexual health services (Mangrulkar et al. 2001; Gillespie et al. 2003; FYSB 2016).

Through repeated observation and practice of healthy life skills, youth can improve their social and cognitive skills, learning how to develop effective communication, negotiation, decision-making, and problem-solving skills. They also can learn how to cope with their emotions by managing stress and dealing with sadness, anger and anxiety. The repeated practice of decision making and problem-solving leads youth to increased self-confidence and a sense of autonomy. Frequent observation of correct behaviors by others, and practice of skills with feedback and reinforcement, can help youth retain the skills for future use (Mangrulkar et al. 2001; Gillespie et al. 2003). By being taught healthy life skills in collaboration with pregnancy prevention programming, youth can learn to make positive decisions related to their sexual health decisions. They can learn (1) to express that they do not want to have sex and be assertive when faced with peer pressure to have it; and (2) to recognize myths and misconceptions about contraception, HIV, and STIs.

Evolving research on decision making is beginning to explore the developmental and contextual aspects of adolescence. Program providers who want to understand and shape adolescents' choices can focus on factors that influence the intention and decision to perform a behavior, such as social and normative pressures, including perceptions of peer activities. They can also focus on steps in the decision-making process and on the skills needed to analyze decisions, such as role-playing a high-risk situation prior to encountering the situation in real life (NRC and IOM 2004).

Social-emotional coping and cognitive skills can enhance positive and reduce negative behaviors and help youth make healthy life choices. Developing these skills can improve the ability of youth to understand the potential short- and long-term consequences of their actions, and how certain behaviors can lead to negative or positive outcomes. Building youths' abilities to generate solutions to interpersonal problems and to counteract or resist peer and social pressures can improve their coping skills (Mangrulkar et al. 2001; Gillespie et al. 2003). Healthy life skills can enable positive behaviors, such as developing and maintaining healthy relationships and pursuing academic achievement. They can defuse and prevent problem behaviors, such as risky sex, delinquency, and substance use. These skills can also help increase prosocial behaviors that benefit others and manage depression and anxiety (Reivich 2010). By practicing these skills and using them in real-world situations, youth can develop a more positive self-concept and achieve greater self-efficacy and well-being. They also become more likely to attain their goals (Botvin and Griffin 2015; Reivich 2010; Goleman 2008). Ultimately, the positive outcomes that can result from improved cognitive, decision-making, and critical-thinking skills, such as academic achievement, maintaining a full-time job that pays more than the minimum wage, and delaying pregnancy, can set youth on a path to achieve economic self-sufficiency in the long term (Haskins and Sawhill 2009).

F. Healthy life skills topics

Healthy life skills programming should incorporate topics that help youth bolster their positive self-concept and self-efficacy, set realistic goals, and identify pathways for achieving them (Cornell 2013; Reivich 2010; FYSB 2016). PREP grantees can address healthy life skills programming through five topic areas.

- **Cognitive skills.** Learning how to make decisions and solve problems; developing critical-thinking skills through which to analyze peer and media influences and perceptions of social norms and beliefs, including gender roles and stereotypes, and evaluate one's views and values; and setting and creating pathways to meet goals and plan for the future (Mangrulkar et al. 2001; Mears 2007; Botvin and Griffin 2015; Graves et al. 2011; Reivich 2010; Gillespie et al. 2003).
- **Emotional coping skills.** Learning how to manage stress, feelings, and reactions to conflict (such as anxiety, anger, and grief), and improving personal confidence and internal locus of control (that is, expectations about whether one's own behavior will bring about desired outcomes), thereby increasing positive self-concept, self-awareness, self-regulation, and self-monitoring. Relaxation techniques, time management skills, learning to seek help in times of distress, and learning to delay gratification of short-term rewards can reinforce emotional coping skills (Mangrulkar et al. 2001; FYSB 2016; Botvin and Griffin 2015; Gillespie et al. 2003).
- **Social skills.** Developing effective verbal and non-verbal communication, negotiation, and refusal skills; bolstering assertiveness skills; learning interpersonal skills (for example, to overcome shyness, initiate social interactions, and develop healthy relationships); and learning how to cooperate with and be empathetic to others (Mangrulkar et al. 2001; Botvin and Griffin 2015; Graves et al. 2011; FYSB 2016; Gillespie et al. 2003). In interviews, grantees suggest skills related to the appropriate use of social media, and applying critical-thinking skills to social media and "sexting"; how to respond to bullying; and identifying media messages and their impact, such as the impact of social media on body image, are important skills for programs to cover.
- **Physical health skills.** Learning about healthful foods, nutrition, eating disorders, deficiency diseases (including anemia and iron deficiency), and the physical effects of substance use; developing a healthy body image; learning about the benefits of or practicing physical fitness, exercise, and wellness activities; and participating in sport-based activities. (Mangrulkar et al. 2001; Gillespie et al. 2003; FYSB 2016).
- **Sexual health skills.** Learning about STIs and HIV/AIDS, including myths and misconceptions; learning about sexual anatomy, puberty, dating and relationships, conception and pregnancy, and available methods of contraception; developing negotiation and refusal skills related to saying no to sex or engaging in safer sex practices; and accessing services for help with sexual health issues (Mangrulkar et al. 2001; Gillespie et al. 2003; FYSB 2016).

G. Program design and implementation

Grantee interviews and the literature review identified five design strategies for healthy life skills programming. These strategies can guide implementation of programming in PREP.

1. **Use interactive participatory methods.** Research suggests that healthy life skills programming can best be taught through interactive, participatory methods. Youth learn skills best when they are able to observe them, practice them, and apply them to real-world situations. Youth can learn about and gain confidence in their ability to practice healthy life skills through a variety of interactive, participatory exercises, such as role-playing, classroom and small-group discussions, demonstration and guided practice,

educational games and simulations, and decision mapping or problem trees (Gillespie et al. 2003; Magrulkar et al. 2001; FYSB 2016). Examples include a values clarification exercise in which youth identify their own values and are taught skills to gather information and make informed choices based on those values; an assertiveness exercise in which youth brainstorm common peer pressure situations and role-play how to say no while maintaining friendships; or a goal road-map activity during which youth set realistic goals and identify pathways to achieve them (Graves et al. 2011; Reivich 2010). By practicing healthy life skills, youth can learn appropriate behaviors and improve their self-perceptions and self-concept, develop positive interpersonal relationships, and improve listening and communication skills (Gillespie et al. 2003; Graves et al. 2011).

Respondents to grantee interviews noted that interactive activities, especially those that combine sexual health and APS topics, help keep youth engaged in PREP programming. Some respondents used technology to deliver interactive programming, such as through iPads or web-based formats. One respondent described using Snapchat, Facebook, and Instagram to engage youth and inform them of additional activities in an interactive way. Research suggests that interventions that utilize digital and social technology can increase accessibility by allowing youth to access content at convenient times, anonymously, and in private locations (Strasburger and Brown 2014). Some grantee respondents reported involving parents in programming through parent events, interactive parent-youth activities, or homework for youth and their parents. Research supports the idea that providing parents with training or interactive tools about healthy life skills can help parents reinforce healthy life skills concepts with youth (Magrulkar et al. 2001; Gfroerer et al. 2013; Cornell 2013).

2. **Follow a developmentally appropriate structure.** Research points toward creating programs that follow a developmentally appropriate structure. Youth of the same age can be at different developmental stages and have varying skills, and their development can vary over time. In addition, youths' knowledge of and ability to apply life skills varies throughout adolescence. Several authors suggested following a planned and sequenced curriculum that considers the age, gender, and developmental stage of youth, building from simple to complex concepts, with later lessons reinforcing what was learned in early sessions (Gillespie et al. 2003; Botvin and Griffin 2015). However, several respondents to grantee interviews felt that when youth of different ages, developmental stages, or genders are taught together, youth are able to learn from one another. The majority of respondents provided the same APS content to all youth, though some tailored the content to ensure it was appropriate for youth of different ages, genders, or populations. Booster sessions can deliver developmentally appropriate material focused on the continued development and reinforcement of healthy life skills such as self-management, social skills, and coping skills (Botvin and Griffin 2015).

3. **Develop skilled and supportive facilitators.** Several authors advise that youth participating in healthy life skills programming can benefit from facilitators who are competent in directing and facilitating group interactions and supportive and respectful of youth. All interview respondents reported that staff who facilitated the curriculum for the prevention of pregnancy and STIs among youth also provided APS programming or curricula, although some facilitators invited guest speakers to cover certain APS topics or supplement APS programming. Research suggests that facilitators who teach healthy

life skills programming can benefit from having adequate training on relevant content (for example, adolescent sexuality and development, and information about abstinence, contraceptives, and STIs/HIV), as well as opportunities to practice their delivery of the content to increase their comfort in addressing sensitive topics. In addition, by receiving training on interactive teaching methods, facilitators can provide adequate support and guidance to youth, without dominating discussions or group activities (Mangrulkar et al. 2001; FYSB 2016; Gillespie et al. 2003). A few respondents described providing training on healthy-life-skills-specific content to staff, including trauma-informed practices; mental health; and talking to youth about health and unhealthy behaviors, including anticipating and responding to youth who perceive unhealthy behaviors as healthy.

Several authors recommended training facilitators on the following elements of effective facilitation: establish a program environment that values open communication and positive interaction; use interactive teaching strategies (for example, build competence in group process, role-play exercises, dramatizations, debates, small-group work, and open discussions); model and apply skills to particular behaviors (for example, provide encouragement and praise to reinforce positive social norms); teach complex social skills to youth; and address sensitive issues in adolescents (Mangrulkar et al. 2001; Gillespie et al. 2003). The authors also recommended that facilitator training be multi-phased, with continued training and booster sessions, and at least ten 45-minute sessions in the first year and five in subsequent years. Training should fit the providers' skill levels; and should pair experienced program providers with new trainees (Mangrulkar et al. 2001; Gillespie et al. 2003).

4. **Create community connections and leadership opportunities.** Several authors suggested that healthy life skills programs connect youth with local organizations and give youth leadership opportunities. Becoming involved with community organizations that focus on building healthy life skills (for example, through sports or community service activities) can sustain changes to youths' self-concept and self-efficacy following classroom-based programming (FYSB 2016). Providing youth with opportunities to participate in community service can increase their sense of empowerment, through strengthened leadership skills and increased self-efficacy. Doing so can enable them to solve real-world problems and achieve their academic goals. Community service also provides opportunities for youth to engage with adults outside a school setting and to become more active members of their local community (Spring et al. 2008). Several authors found that service learning programs, which include youth participation in community service activities and time to process student reactions to these activities, led to improvements in healthy behaviors, including delayed sexual activity, improved contraception use, and decreased teen pregnancy rates (Cornell 2013; Kirby 2007).

5. **Use integrated curricula.** PREP grantees indicated that they typically used a curriculum for pregnancy and STI prevention that also included APS content, including content related to healthy life skills. They felt that selecting a curriculum that combined both pregnancy and STI prevention and APS content helped maintain student interest and allowed programs to use their time more efficiently. Several grantees felt that selecting a curriculum which included a community service component was one way to address healthy life skills. Further, PREP grantees noted the importance of selecting a

curriculum that addresses the needs of youth and is a good fit for the implementation setting. Other factors to consider include whether the curriculum is sensitive to the circumstances of diverse youth, including sexual minorities; whether the curriculum is trauma-informed; whether it is culturally appropriate for the youth served; and how long it is. For example, shorter curricula may be needed for transient or homeless populations who cannot stay engaged with a program very long.

H. Outcomes

The reviewed literature suggested several outcomes that might be realized by addressing healthy life skills topics in PREP. The study team organized outcomes into two categories—expanded and enhanced—based on whether they focus on changes to outcomes related to the prevention of pregnancy and STIs among youth targeted by PREP (enhanced) or outcomes not related to the prevention of pregnancy and STIs among youth (expanded). The model is limited to outcomes supported by the literature review.

The team further organized outcomes as short-term, intermediate, and long-term. These categories are derived from a theoretical understanding of the logical sequencing of youth knowledge, attitudes, skills, and behaviors related to a particular outcome. *Short-term* outcomes are those one would expect to see directly following a program. Typically, short-term outcomes include initial changes in knowledge and attitudes but may also include more immediate changes in behaviors. Such outcomes often continue to be relevant at later time points. *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 could expect to see these outcomes six months to a year after a program is completed. *Long-term* outcomes are observed a year or more after program completion. Depending on when youth attend the program, this could be during middle or high school or even after high school and into young adulthood. (The model does not identify outcomes past young adulthood, and the reviewed literature did not include articles on the effects of healthy life skills programming in adulthood.)

Enhanced outcomes. If PREP programs that incorporate healthy life skills achieve the conceptual model's expanded outcomes, programs might also affect outcomes related to the prevention of pregnancy and STIs among youth targeted by PREP. For example, life skills programming may lead to gains in knowledge and improved attitudes about sexual expectations and behavior and reproduction (Graves et al. 2011). Life skills programming may also lead to less involvement by youth in risky sexual behaviors. Participation in a life skills training program was associated, in the short term, with a reduced likelihood among youth aged 16 to 21 of having had sex in the past six months (Minnis et al. 2014), and, in the longer term, a reduced likelihood among young adults of having multiple sex partners or having sex while drunk or high (Griffin et al. 2006). Research also found that life skills programs that focused on promoting academic achievement and goal setting reduced the rate of pregnancies and repeat pregnancies (Cornell 2013).

Expanded outcomes. The literature suggested that incorporating healthy life skills into PREP could result in changes to outcome domains beyond youths' sexual health. Learning healthy life skills can result in improved social skills and emotional well-being, as reflected in the short-term expanded outcomes. Enhancing youths' social competency (that is, confidence, assertiveness,

and communication skills) and self-management skills (such as decision making, problem solving, and behavioral self-control) can lead adolescents to have lower rates of substance use, including cigarette, alcohol, and marijuana use (Botvin and Griffin 2015; Minnis et al. 2014; Foxcroft and Tsertsvadze 2011; Gillespie et al. 2003), as reflected in intermediate expanded outcomes. Programs that teach healthy life skills have also shown significant reductions in delinquency, interpersonal violence, and criminal behavior (Botvin and Griffin 2015; Gillespie et al. 2003; Mears 2007), and reduced likelihood of associating with friends who had been incarcerated or detained, or who were gang-affiliated (Minnis et al. 2014), which are defined as intermediate outcomes. Research has also shown that, in the long-term, development of goal-setting and problem-solving skills are positively related to academic achievement (Forneris et al. 2007). In particular, research has found that participating in life skills programs can promote positive social adjustment and reduce emotional disorders, improve health-related behaviors, self-concept, and levels of assertiveness, self-mastery, personal control, self-confidence, and self-satisfaction, and improve academic performance (Gillespie et al. 2003; Forneris et al. 2007).

The theory of change presented in this chapter hypothesizes that improved cognitive and critical-thinking skills resulting from participation in healthy life skills programming could lead to reduced rates of unprotected sex in the six months after the program, thereby lowering rates of adolescent pregnancy and HIV/STIs in the long term. However, the study team did not include these outcomes in the conceptual model, because they were not supported by the literature reviewed.

I. Conclusions

Incorporating healthy life skills—specifically, social-emotional coping, cognitive, and physical and sexual health skills—into PREP programming can potentially increase youths' social and emotional well-being and bolster their decision-making and problem-solving skills, resulting in reduced levels of risky behavior and improved academic achievement. Development of healthy life skills may also increase the number of youth who use condoms or contraception or abstain from sex. Most research studies reviewed for this APS focused on the impact of healthy life skills programming on alcohol and substance misuse or risky sexual behavior, but did not directly link participation in healthy life skills programming to any reduction in the prevalence of adolescent pregnancy and STIs/HIV. More research is needed on how to integrate healthy life skills programming with curriculum for pregnancy and STI prevention, and the youth outcomes that might result from such an integrated program.