



OASH

Office of
Population Affairs

Delivering Evidence-Based Programs to Prevent Teen Pregnancies and Support Adolescent Health

IMPLEMENTATION OF THE TPP20
OPTIMALLY CHANGING THE MAP FOR TEEN
PREGNANCY PREVENTION GRANTS

November 2024

HHS Office of Population Affairs

Web: opa.hhs.gov | Email: opa@hhs.gov | Twitter: [@HHSPopAffairs](https://twitter.com/HHSPopAffairs)

YouTube: [HHSOfficeofPopulationAffairs](https://www.youtube.com/HHSOfficeofPopulationAffairs) | LinkedIn: [HHS Office of Population Affairs](https://www.linkedin.com/company/HHS-Office-of-Population-Affairs)



PURPOSE STATEMENT

In this report, we present the findings from an implementation evaluation of the 62 grantees awarded *Tier 1: Optimally Changing the Map for Teen Pregnancy Prevention* grants under the federal Teen Pregnancy Prevention (TPP) program. The goal of these grants (awarded in July 2020 or July 2021 through June 2023) was to make a positive impact on adolescent health and reduce rates of unintended teen pregnancy and sexually transmitted infections (STIs) by saturating communities and populations with the greatest need—that is, those with relatively high rates of teen pregnancy and STIs—through a systems thinking approach to replicate evidence-based programs and provide supportive services. The U.S. Department of Health and Human Services, Office of Population Affairs sought to understand: (1) how grantees implemented the TPP20 Tier 1 grant strategy; (2) the factors that influenced implementation; (3) what challenges grantees encountered; and (4) what factors facilitated their success in developing and implementing a systems-thinking approach to prevent unintended teen pregnancy and reduce rates of STIs within their selected service areas.

CONTENTS

Executive Summary	vi
Background.....	vi
The TPP20 Evaluation.....	viii
Key Takeaways.....	ix
Lessons Learned.....	xi
1. Introduction	1
1.1 The Teen Pregnancy Prevention Program.....	1
1.2 The Tier 1: Optimally Changing the Map for Teen Pregnancy Prevention Grants.....	2
1.3 Report Overview.....	3
2. The TPP20 Tier 1 Grantees and Their Communities	5
2.1 Grantee Organizations.....	5
2.2 Community and Organizational Context.....	7
3. TPP Project Structures and Roles	9
3.1 Grantee Roles.....	9
3.2 Partner Roles.....	11
3.3 Project Structures.....	12
3.4 Partner Identification and Recruitment.....	13
4. Focus and Reach of the TPP Projects	16
4.1 Populations Served and Reach.....	16
4.2 Facilitators and Barriers for Recruiting and Retaining Participants.....	19
5. Applying a Systems-Thinking Approach	22
5.1 Systems-Thinking Approaches.....	24
5.2 Varied Understanding of Systems Thinking.....	25
5.3 How Projects Identified and Began to Address Needs through the Roles of Systems.....	27
5.4 Factors that Facilitated Systems Thinking in TPP Projects.....	27
6. Evidence-Based Programs (EBPs) and Delivery Settings	29
6.1 EBPs Delivered by the Projects.....	30
6.2 How and Why Grantees Selected EBPs.....	32
6.3 Participant, Partner, and Community Reception of EBPs.....	33
6.4 Settings Where Projects Implemented EBPs.....	35
6.5 Challenges in Delivering EBPs.....	37
6.6 Adaptations to EBPs.....	38
7. Supportive Services Provided by Projects	42
7.1 Supportive Services Provided by Projects.....	43

8.	Youth and Community Engagement in the TPP Projects	45
8.1	Community and Adult-Led Activities.....	46
8.2	Youth-Led Activities	47
8.3	Outreach and Information Sharing	47
9.	Conclusion.....	49
9.1	The Role of COVID-19.....	49
9.2	Major Accomplishments.....	50
9.3	Facilitators of Success	52
9.4	Lessons Learned	53
	Appendix: Study Methods	58
	The Teen Pregnancy Prevention Fiscal Year 2020/2021 Evaluation	58
	References	59

Exhibits

Exhibit ES-1. Key Elements of the TPP20 Tier 1 Grant Approach	vi
Exhibit ES-2. Components of a Sample Systems-Thinking Approach	viii
Exhibit 1-1. OPA's TPP Continuum	1
Exhibit 1-2. Key Elements of the TPP20 Tier 1 Grant Approach.....	2
Exhibit 2-1. The TPP20 Tier 1 Grantees.....	6
Exhibit 3-1. Grantee Roles on the TPP Project, by Phase	10
Exhibit 3-2. Role of Grantees and Partners in EBP Delivery.....	10
Exhibit 3-3. Roles Held by Partners across All Tier 1 Grantees.....	11
Exhibit 3-4. Common Tier 1 Project Structures.....	13
Exhibit 3-5. Formal Partner Organization Types.....	14
Exhibit 4-1. Number of Youth Served by Projects in the Second Year of Implementation.....	19
Exhibit 5-1. Example of a Systems-Thinking Approach	23
Exhibit 6-1. The Ten Most Commonly Implemented EBPs	31
Exhibit 6-2. Number of EBPs Implemented by Each Tier 1 Project.....	32
Exhibit 6-3. Types of Settings Where TPP Projects Implemented EBPs	35
Exhibit 6-4. Number of Different Settings Where TPP Projects Implemented EBPs	36
Exhibit 7-1. Supportive Services Grantees Offered Directly and by Referral	43
Exhibit 8-1. TPP Projects' Community and Youth Engagement Activities.....	46
Exhibit 8-2. Percentage of Grantees that Engaged in Select Outreach Activities.....	48

Executive Summary

Background

In 2020, the Office of Population Affairs (OPA), within the U.S. Department of Health and Human Services, funded 49 organizations through the Teen Pregnancy Prevention (TPP) Tier 1: Optimally Changing the Map for Teen Pregnancy Prevention grants (TPP20 Tier 1 grants). A year later, OPA funded an additional 13 organizations through the same grant program. The goal of these two- to three-year grants (awarded in July 2020 or July 2021 through June 2023) was to make a positive impact on adolescent health and reduce rates of unintended teen pregnancy and sexually transmitted infections (STIs) within communities and populations with the greatest need—that is, those with relatively high rates of both.

Exhibit ES-1 describes the key required elements of the Tier 1 grants. Within this basic framework, to facilitate a community-driven approach, the Tier 1 grantees had flexibility in how they implemented their projects based on local priorities, resources, and constraints. This included flexibility in their: (1) methods for incorporating elements of a systems-thinking approach; (2) focus populations; (3) type of evidence-based programs (EBPs) delivered; (4) number of different EBPs delivered; (5) settings and modes for EBP delivery; (6) parent and caregiver programming; (7) integration of supportive services; and (8) approach to youth and community engagement.

Exhibit ES-1. Key Elements of the TPP20 Tier 1 Grant Approach



Focus & Reach

Focus efforts to reach communities of greatest need to promote equity in adolescent health and prevent teen pregnancy and STIs



Supportive Services

Engage community partners in offering services and direct supports to youth and families, complementing EBP delivery



Systems Thinking

Identify key systems in the community and leverage points to drive change and support project goals



Engage Youth, Parents/Caregivers & the Community

Engage youth, parents/caregivers and community partners in the planning, implementation, and evaluation of the project to ensure services meet the needs of the community



EBPs

Implement culturally- and age-appropriate, medically accurate, trauma-informed evidence-based teen pregnancy prevention programs

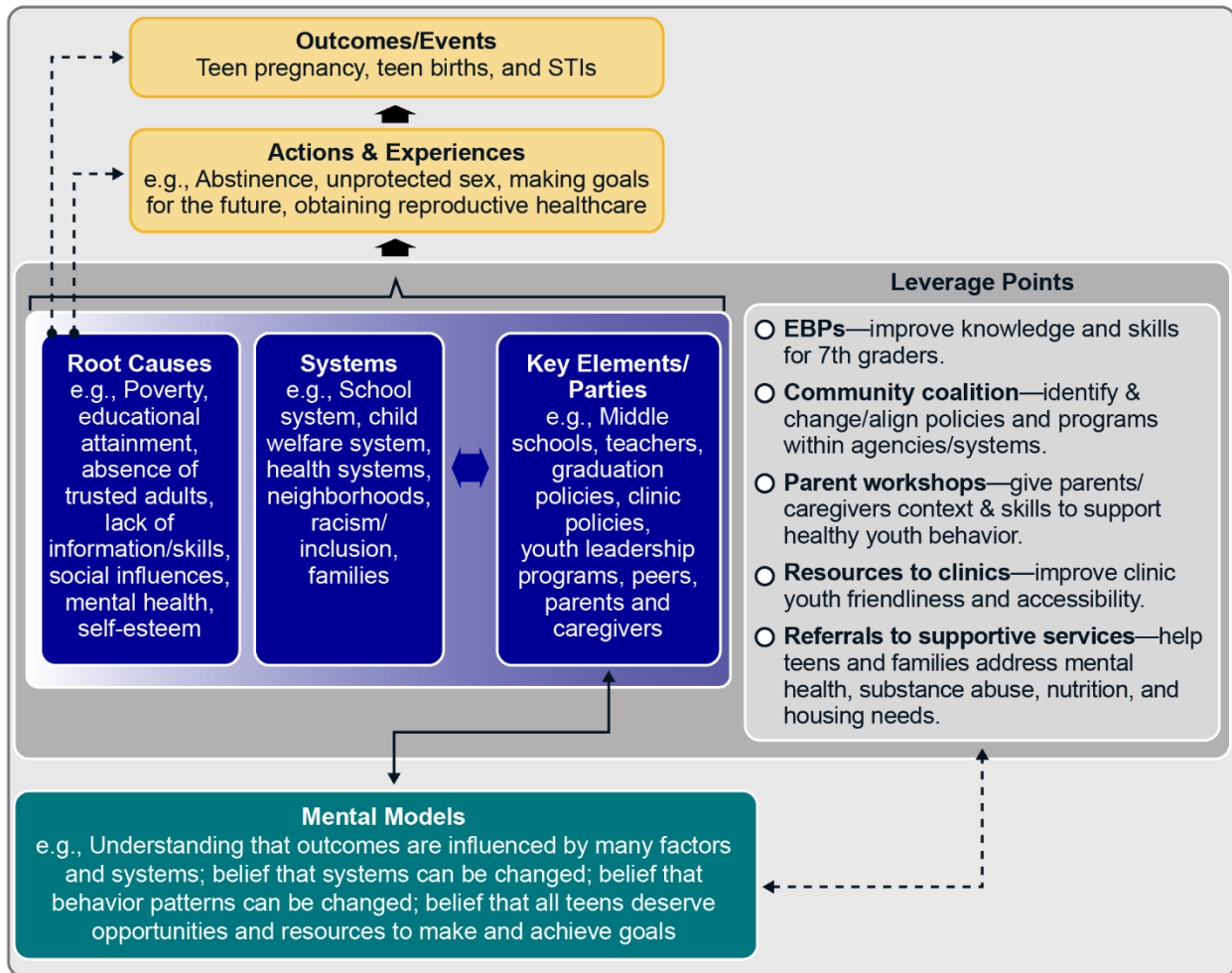
- Focus and Reach:** Grantees used available data, their prior experiences, and community connections to identify a service area for their TPP projects. The service area needed to include areas where there were disproportionately higher rates of unintended teen pregnancy or births and STIs. Grantees could further narrow their reach and programming to serve **specific populations where rates of teen pregnancy and STIs were higher** than for other populations in the same geographic area. *Reach* was the goal a grantee set for the numbers of individuals (e.g., youth) within the selected service area and/or focus population that would receive EBPs. Grantees were expected to serve

at least 25% of the overall population they had identified as a means of “saturating” the “community” with EBPs.

- **Systems Thinking:** After identifying their overall service area and any focus populations, grantees identified community needs and the **systems** affecting youth. Examples of systems included schools, the healthcare system, and family systems. This systems-thinking approach allowed grantees to further explore existing systems to (1) identify the **key elements or parties**—such as people and organizations—that can affect rates of unintended teen pregnancy and then (2) determine how those key elements or parties can better work together to create healthier systems for youth to see positive impacts on their sexual and reproductive health. To implement their approaches, grantees identified **leverage points** within systems where it is possible to influence youth outcomes and support youth through interventions such as EBPs, policy changes, peer support, and connection to supportive services. Exhibit ES-2 describes the components of a sample systems-thinking approach, with examples of what each component might include.¹
- **Evidence-Based Programs (EBPs):** Grantees identified **evidenced-based programs with positive impacts on sexual and reproductive health outcomes** that were best suited for their communities and focus populations, taking into consideration the needs of the youth, parents/caregivers, community norms, and local or state policies or laws. Grantees also identified in which **settings** they or partners would deliver the program services, such as schools, community-based settings, or online.
- **Supportive Services:** In addition to selecting which EBP(s) to deliver, grantees also identified available and needed **youth-friendly supportive services** to address other youth needs related to adolescent sexual and reproductive health outcomes, such as access to job training, mental health services, violence prevention services, or other healthcare needs.
- **Engagement of Youth and Community:** Through the TPP project, grantees **incorporated the perspectives and experiences of youth, parents/caregivers, and community members** into the design and implementation of their TPP projects. They kept communities informed of the project’s progress and approach through public communication.

¹ The sample model of systems thinking presented in Exhibit ES-2 is a combination of elements grantees incorporated into their projects. Individual grantees did not necessarily incorporate all components of this sample approach. Among several common models of systems thinking are *social-ecological* models, focused on different groups and layers of influence in youth’s lives, and the *iceberg model*, based on the concept of unseen root causes and influences. OPA provided grantees with training on multiple models and empowered them to build their own approaches based on local resources, perspectives, understanding, and needs.

Exhibit ES-2. Components of a Sample Systems-Thinking Approach



Overall, **experience and relationships** played important roles in supporting projects. Most grantees chose communities or populations where they had strong, existing connections to partners and service providers, or which were closely tied to their organizational missions. Most also chose EBPs with which the grantee, partners, or community was already familiar with in order to leverage existing experience and knowledge in their network and build on existing trust among settings and communities hosting EBPs.

In strengthening existing collaborations and forming new ones, grantees relied on dedicated individuals. This came in the form of (1) project staff members dedicated to identifying partners and services; (2) single points of contact at school-based and other settings who could advocate for the EBP and coordinate delivery on-site; and (3) local “champions” of the TPP project, such as school nurses, department of health staff, or school board members, who could help projects gain entry to new settings or communities.

The TPP20 Evaluation

In 2021, OPA awarded Abt Global and its partners, Decision Information Resources and Data Soapbox, a contract to evaluate the TPP20 Tier 1 Optimally Changing the Map for Teen Pregnancy Prevention grant strategy (“TPP20 Evaluation”). The purpose of the TPP20

Evaluation was to understand the factors that influenced implementation; what challenges grantees encountered; and what factors facilitated their success in implementing systems-thinking approaches, replicating effective programs, and connecting youth and communities to supportive services and information to prevent unintended teen pregnancy and STIs.

Between October 2022 and April 2023—during the final year of grants—the study team conducted virtual or in-person semi-structured interviews with all 60 Tier 1 grantees. The study team interviewed staff from each grantee organization and a subset of partner organizations. Study data also included a web-based informational form and a review of OPA grant information.

Key Takeaways

What follows are the key takeaways from the insights grantees and partner agencies provided about the core elements of the TPP projects:

Grantees, Communities, and Community Engagement

- **Previous grants and related experience helped grantees launch their projects quickly and engage partners widely.** Many grantees had previous funding to support teen pregnancy prevention efforts, which ensured that important community structures and experience were in place for the start of their grants.
- **Projects faced substantial hurdles to both recruiting youth and delivering EBPs in all intended sites, settings, and communities during the COVID-19 pandemic.** During the first two years of the COVID-19 pandemic (which coincided with the first two years of the grant period for most grantees), many projects had to pivot to remotely delivering EBPs designed for in-person implementation. Some sites or settings were unable to host EBPs even after in-person activities had resumed.²
- **Community input and involvement were central to project implementation, though makeup and structure of community groups varied in composition and roles.** This included gaining feedback from community or youth groups, parents/caregivers, and the community at large. For example, community advisory group members, who were often from community-based partner organizations, helped grantees avoid “reinventing the wheel” by advising them on existing resources and providing input on community needs, program design, and ways to improve implementation. Grantees also gathered input on project and community needs through key informant interviews or focus groups.

Applying Elements of a Systems-Thinking Approach

- **For most grantees, systems thinking was a new concept, and one that they incorporated and built on as the grant progressed.** Some had staff members or partners who had experience with a systems-thinking approach, and a few were already implementing approaches based on systems thinking at an organization or community coalition level, such as a *Collective Impact* model for community-level change.
- Grantees’ common overall approaches to systems thinking included:

² See Garman et. al. (forthcoming) for more information about program implementation during the pandemic and lessons learned from this experience.

- *Directly involving multiple partners or formal systems (e.g., healthcare, school, or juvenile justice systems).* This included close collaborations, such as coordinating to recruit participants with system involvement or specific risks, or recruiting organizations to provide feedback and guidance to the project.
- *Engaging and educating staff, partners, and other community members involved in youth's lives in the concept and language of systems thinking, trauma-informed care, and other topics.*
- *Focusing on the roles of parents, caregivers, and other trusted adults in the lives of teen participants.* This emphasis incorporated a model of systems thinking based on the different sectors and levels of influence on individuals (e.g., families, peers, youth-serving agencies), to support teens and positively influence their behavior.
- ***Pre-existing experience with and infrastructure for community-level collaboration or systems-thinking approaches were essential to developing comprehensive systems-thinking approaches within the grant period.*** A few grantees already had comprehensive systems-thinking approaches in place. Others were able to use organizational or community partnership experience, connections, and infrastructure to grow a robust systems thinking approach for their TPP projects.
- ***Regardless of their level of experience with systems-thinking approaches, most grantees expressed a positive view of systems thinking overall.*** Some said that it had expanded their understanding of the root causes, people, and agencies with a role in youth health outcomes. Others said it allowed them to make new connections in their communities with the possibility of sustainable change. Those who shared negative views of systems thinking said that it took away resources, time, or social capital needed for implementation or felt like they had insufficient capacity or time to implement an effective approach.

EBPs and Settings

- ***Most grantees selected EBPs with which they, their partners, or their communities were already familiar in order to leverage existing experience and build on existing support.*** Familiar EBPs helped grantees start implementing immediately because some staff were already trained, settings and communities were already accepting of the EBPs, and support within the community was already established.
- ***Some grantees gained support for their EBPs in schools and communities by meeting salient needs that went beyond decreasing unintended teen pregnancy and supporting youth health.*** For example, some grantees selected EBPs that built life skills. Others added training or modules to address needs important to the community, such as disaster preparedness or social media awareness.
- ***Grantees expressed concern about the impact of adaptations needed to deliver EBPs remotely during the COVID-19 pandemic; some found silver linings to remote delivery.*** Grantees were concerned that most EBPs could not be delivered with fidelity online, and that it was harder to engage or support participants virtually. Some projects were able to adapt activities for a virtual setting to better engage youth using tools on Zoom and other platforms, incorporated online features such as built-in resource guides, crisis hotlines, and the ability to send confidential questions to EBP

facilitators. A few projects said that moving to remote delivery allowed them to better reach populations they would not have been able to reach with in-person delivery. This included youth in some community-based settings who could not easily travel and parents who did not necessarily have time to travel.

- ***School-based settings, where projects could reach the most participants and achieve the highest retention, were the most common settings for EBP delivery.*** However, the majority of projects delivered EBPs in multiple settings and went beyond school-based settings to reach more youth and a variety of focus populations.
- ***Frequent communication with setting staff supported implementation.*** Projects were able to implement EBPs most smoothly when they had setting partner buy-in or even enthusiasm, and when they had a dedicated point of contact who had volunteered for the role.

Supportive Services

- ***Some grantees delivered one or more supportive services directly to participants; however, most services were referred externally. Typical approaches relied on informal referrals or resource guides.*** Grantees identified organizations that could offer supportive services that grantees' focus populations needed, often referring participants to some services outside of their formal partner networks.
- ***Some grantees integrated one or more supportive services as core components of their projects.*** Several grantees integrated access to reproductive health or healthcare into their projects, and some EBPs included field trips to or visits from youth-friendly healthcare providers. Other integral services included parenting classes, material support, job training or work experience, housing assistance, violence prevention, youth leadership experience, and academic coaching.
- ***In general, the pandemic made it harder to deliver services, connect youth to services, and identify the needs of individual youth.*** Some youth and communities faced trauma and isolation because of the pandemic and other concurrent events, making it more challenging for the TPP projects to meet their needs. These events also highlighted the need for projects to build more connections to mental health support and treatment.

Lessons Learned

The TPP20 Tier 1 grant program required projects to develop and implement complex, multi-component approaches to prevent unintended teen pregnancy and transmission of STIs—which were sensitive topics in many communities—starting in the early months of a global pandemic that dramatically affected youth, their families, and community institutions. This section highlights key lessons learned as projects worked with staff, partners, youth, and communities to form a clear picture of systems affecting youth outcomes and aimed to address core needs with evidence-based programming and supportive services.

- ***Developing and maintaining strong relationships with partner organizations, parents, and youth is key to successful implementation.*** Strong partners not only served as champions of the program within the community, helping to gain buy-in and trust from implementation settings, parents, and youth; they also helped to remove barriers to implementation and facilitated their ability to respond to changing needs, including adjusting programming modalities and content. For some grantees, forming these strong relationships involved partnering with organizations that had shared goals or mission, engaging in frequent communication, and providing materials and training to incentivize their ongoing participation.



“WE’RE ALIGNING WHAT WE’RE DOING WITH THE NEEDS OF THAT COMMUNITY, BECAUSE THAT’S NOT REFLECTED IN ALL OF US. WE DON’T HAVE—OUR STAFFING AND EVEN WITHIN THE GRANT—WE DON’T LOOK LIKE THE STUDENTS THAT WE SERVE. SO IT’S IMPORTANT THAT WE GATHER THAT INFORMATION.”

Grantee

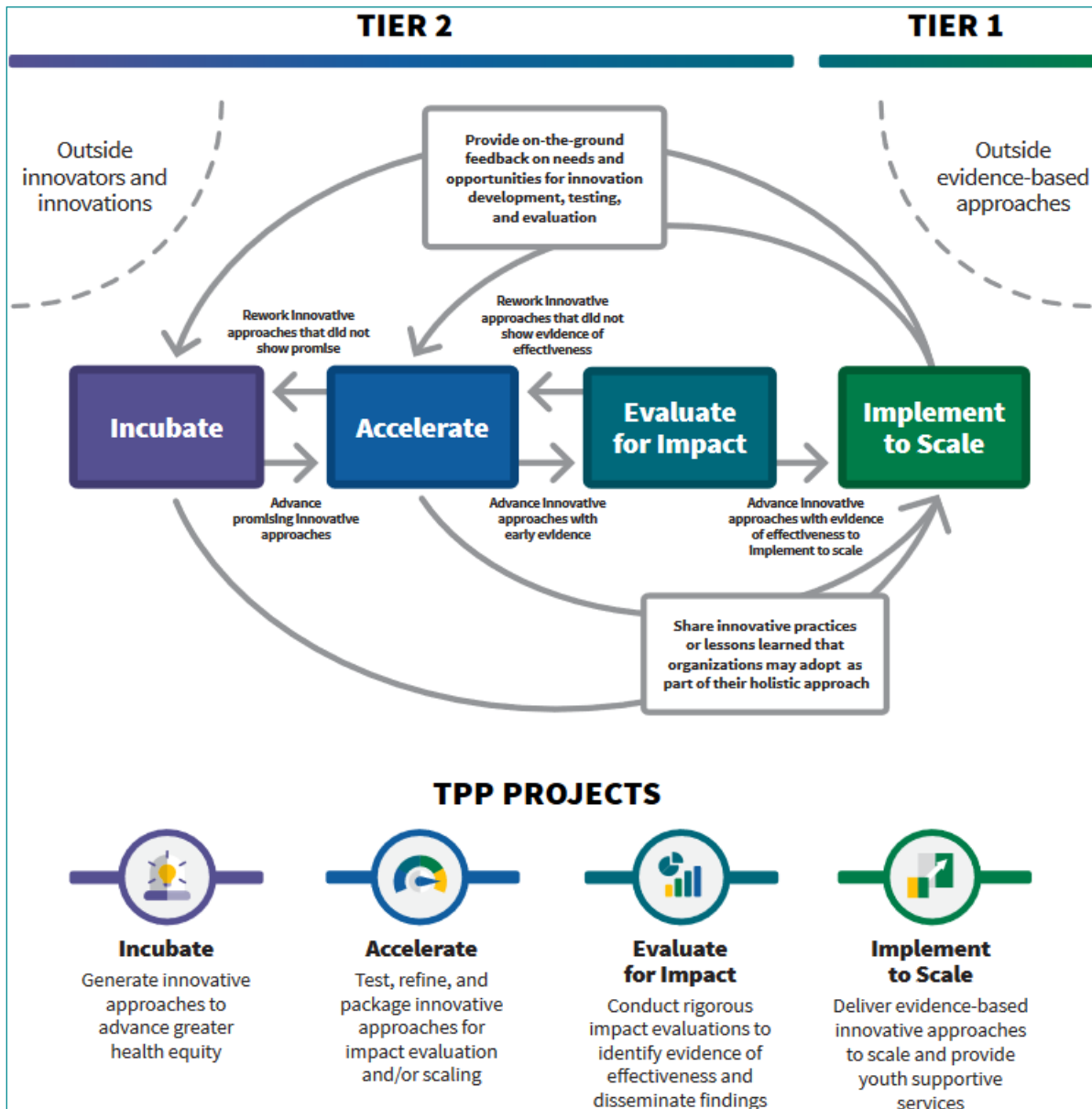
- ***Engaged, dedicated staff facilitate EBP delivery, community support, and youth engagement.*** Having staff who are mission driven, have roots in the community or similar backgrounds to community members, and foster a supportive organizational culture was a common facilitator of success. Among projects where grantee staff delivered the EBP programming directly, several noted that having skilled, approachable, and knowledgeable facilitators was critical to building trust, garnering youth engagement in the EBP programming, and receiving honest feedback from youth.
- ***Early and ongoing transparency and community engagement help smooth project delivery and build community support.*** Open communication about the TPP project and EBPs and designing programming in response to community needs and feedback helped grantees deliver appropriate programming and earn community support.
- ***Parents and caregivers can be a challenging but essential part of the community to engage to build acceptance of EBPs and help support youth beyond the EBPs.*** Parents were often one of the main obstacles grantees had to overcome in getting youth into their programs. Though some grantees offered parent/caregiver workshops and programming on developmentally appropriate ways to talk to their children about pregnancy prevention, relationships, and STIs, several more grantees said they wished they had included this component so that parents could continue the conversations with youth at home.
- ***The grant was not long enough for grantees to accomplish everything in the TPP20 Tier 1 grant strategy.*** Grantees’ project start-up periods often lasted six to eight months, which cut into their ability to serve the intended number of participants. The challenges navigating the changing landscape brought on by the COVID-19 pandemic also meant that many grantees were not able to start implementing their project as intended—that is, with in-person delivery—until a year or two into the grant—which itself was only two or three years, depending on the cohort. The grant’s short timeframe also did not allow grantees enough time to form the community relationships, partnerships, and wider engagement needed to adopt a comprehensive systems-thinking approach, which many thought would take several years.

1. Introduction

1.1 The Teen Pregnancy Prevention Program

Although the United States has made great progress in reducing teen pregnancy, births to teen mothers are still much more common than in other western industrialized nations. In addition, not all teens are at equal risk; there are disparities in teen pregnancy and sexually transmitted infection (STI) rates by race and ethnicity (Martin et al., 2021); urbanicity (Hamilton, Rossen & Branum, 2016); and for the most vulnerable populations, including youth living in foster care (Boonstra, 2011) or involved with the juvenile justice system (Oman et al., 2018). To address this need, the Office of Population Affairs (OPA), within the U.S. Department of Health and Human Services, administers the Teen Pregnancy Prevention (TPP) program.

Exhibit 1-1. OPA’s TPP Continuum



Source: Office of Population Affairs (2023).

OPA awards Tier 1 grants under the TPP program to support the replication of evidence-based teen pregnancy and STI prevention programs. OPA also awards Tier 2 grants to support the development and evaluation of new and innovative approaches to reduce disparities in teen pregnancy and birth rates and promote adolescent health.






Exhibit 1-1 above illustrates how the Tier 1 and Tier 2 grant strategies work together to expand the number of evidence-based programs (EBPs) available to support teen pregnancy prevention. Interventions developed under Tier 2 that show effectiveness in rigorous evaluations can be scaled up and delivered in communities nationwide (Implement to Scale phase) via the Tier 1 grant program, along with evidence-based programs developed separately.

1.2 The Tier 1: Optimally Changing the Map for Teen Pregnancy Prevention Grants

In 2020, OPA funded 49 organizations under the Tier 1: Optimally Changing the Map for Teen Pregnancy Prevention grants. A year later, OPA funded an additional 13 organizations. Annual funding for each grantee ranged from \$412,200 to \$1,500,000, with an average annual grant amount of about \$1.11 million. The goal of these grants was to make a positive impact on adolescent health and reduce rates of teen pregnancy and STIs within communities and populations with the greatest need; that is, those with relatively high incidences of teen pregnancy, teen births, and STIs. Grantees could opt to serve all youth within the identified service area—where rates of teen pregnancy, births, or STIs was high—or further **focus their reach and programming on populations with the greatest need** within the selected service area.

Exhibit 1-2 below describes the key required elements of the Tier 1 grants. Within this basic framework, the Tier 1 grantees had substantial latitude in how they implemented their projects, including flexibility in their (1) approach to systems thinking, (2) focus populations, (3) EBPs delivered, (4) number of different EBPs, (5) settings and modes for EBP delivery, (6) parent and caregiver programming, (7) integration of supportive services, and (8) approach to youth and community outreach.

Exhibit 1-2. Key Elements of the TPP20 Tier 1 Grant Approach

	<p>Focus & Reach</p> <p>Focus efforts to reach communities of greatest need to promote equity in adolescent health and prevent teen pregnancy and STIs</p>		<p>Supportive Services</p> <p>Engage community partners in offering services and direct supports to youth and families, complementing EBP delivery</p>
	<p>Systems Thinking</p> <p>Identify key systems in the community and leverage points to drive change and support project goals</p>		<p>Engage Youth, Parents/Caregivers & the Community</p> <p>Engage youth, parents/caregivers and community partners in the planning, implementation, and evaluation of the project to ensure services meet the needs of the community</p>
	<p>EBPs</p> <p>Implement culturally- and age-appropriate, medically accurate, trauma-informed evidence-based teen pregnancy prevention programs</p>		

- **Focus and Reach:** Grantees used their prior experiences, available data, and community connections to identify a service area for their TPP projects. The service area needed to include areas where there were disproportionately higher rates of unintended teen pregnancy or births and STIs, either generally or for specific populations. Grantees could further narrow their reach and programming to serve **specific populations where rates of teen pregnancy and STIs were higher** than for other populations in the same geographic area. Grantees then set *reach* goals for how many individuals (e.g., youth) within the selected service area and/or focus population they would serve with EBPs. Grantees were expected to serve at least 25% of the overall population they had identified as a means of “saturating” the “community” with EBPs.
- **Systems Thinking:** After identifying their overall service area and any focus populations, grantees identified community needs and the **systems** affecting youth. Examples of systems included schools, the healthcare system, and family systems. This systems-thinking approach allowed grantees to further explore existing systems to (1) identify the **key elements or parties**—such as people and organizations—that can affect rates of teen pregnancy and then (2) determine how those key elements or parties can better work together to create healthier systems for youth to see positive impacts on their sexual and reproductive health. To implement their approaches, grantees identified **leverage points** within systems where it is possible to influence youth outcomes and support youth through interventions such as EBPs, policy changes, peer support, and connection to services.
- **Evidence-Based Programs:** Grantees identified **evidenced-based programs with positive impacts on sexual and reproductive health outcomes** that were best suited for their communities and focus populations, taking into consideration the needs of the youth, parents/caregivers, community norms, and local or state policies or laws. Grantees also identified in which **settings** they or partners would deliver the program services, such as schools, community-based settings, or online.
- **Supportive Services:** In addition to selecting which EBP(s) to deliver, grantees also identified available and needed **youth-friendly supportive services** to address other youth needs related to adolescent sexual and reproductive health outcomes, such as access to job training, mental health services, violence prevention services, or other healthcare needs.
- **Engagement of Youth and Community:** Through the TPP project, grantees **incorporated the perspectives and experiences of youth, parents/caregivers, and community members** into the design and implementation of their TPP projects. They kept communities informed of the project’s progress and approach through public communication.

Sections 4 through 8 of this report describe how the grantees and their partners incorporated these five elements into their TPP20 Tier 1 projects.

1.3 Report Overview

In 2021, OPA contracted with Abt Global (formerly Abt Associates) and its partners, Decision Information Resources, Inc. (DIR) and Data Soapbox, to conduct an evaluation of the Teen Pregnancy Prevention Fiscal Year 2020/2021 Tier 1 and Tier 2 grant strategies (“TPP20 Evaluation”). The TPP20 Evaluation included a cross-site implementation study of how grantees implemented each grant strategy. This report describes the planning and implementation phase

of the 62 Tier 1 grantees. Another report (de Sousa et. al., 2024) describes implementation findings across the TPP20 Tier 2 grantees.

Between October 2022 and April 2023—during the final year of grant implementation—the study team conducted virtual or in-person semi-structured interviews with all 60 Tier 1 grantees. The study team interviewed staff from each grantee organization and a subset of partner organizations. Study data also included an observation of a grantee activity, when possible, a web-based informational form, and a review of OPA grant information (see Appendix for more information on study Methods).

The remainder of this report describes the planning and implementation phase of the TPP20 Tier 1 grants, along with challenges the grantees encountered, and lessons learned. A summary of the approaches and characteristics for each individual Tier 1 grantee is available in a separate set of grantee profiles (Freiman, et. al. 2024).

Key Terms

evidence-based program (EBP): A program determined to be effective through rigorous evaluation to reduce teenage pregnancy, behavioral risk factors underlying teenage pregnancy, or other associated risk factors, and so eligible for replication.

leverage points: Places where applied pressure can drive change or reduce the barriers to change. Examples of leverage points from grantee projects include organizational policies and procedures, coordination among multiple partners working in a community, programming for youth, programming for parents and caregivers, training for youth-serving professionals, and coordination and referral to support services.

mental model: The set of assumptions, beliefs, and values with which a person understands the world, including systems; a worldview

reach: The number of participants from the community and/or focus population who receive EBP programming at least once.

saturation: Reaching a critical share of specific populations and communities with the aim of making measurable change.

setting: The location type and context in which an EBP is delivered; for example: “in-school, middle schools” would be a setting.

site: The specific location where an EBP is delivered; for example, “Benjamin Franklin Middle School.”

system: A group of interacting, interrelated, and interdependent components that form a complex and unified whole.

systems thinking: The process of seeing the whole system, and the way the elements or components of the system interrelate with one another to cause the system to behave in the way that it does. Sometimes described as “big picture” thinking. An approach to grappling with adaptive problems in complex environments with the aim of making enduring change with the greatest impact.

project: The activities the grantee and its partners undertake as part of their grant-funded programming.

2. The TPP20 Tier 1 Grantees and Their Communities

The TPP20 Tier 1 grantees represented a broad range of communities and populations across the United States and its territories. The grantees included non-profit and community-based organizations, universities and colleges, government agencies, clinical providers, faith-based organizations, and school districts. For each grantee, its goals, size, history, community context, and capacity played a role in how it designed and implemented its TPP project. This section describes the 62 grantees awarded TPP20 Tier 1 grants, the communities they represented, and how they selected their TPP project service areas and focus populations.

Key Takeaways

- **Grantee locations, reach, and the locations of pre-existing partnership networks played an important role in their choice of service areas.**
- **Some grantees used multi-tiered, data-driven approaches to identify their service areas.**
- **Many grantees had previous TPP funding; all grantees had organizational goals and missions that aligned with preventing unintended teen pregnancy.**

2.1 Grantee Organizations

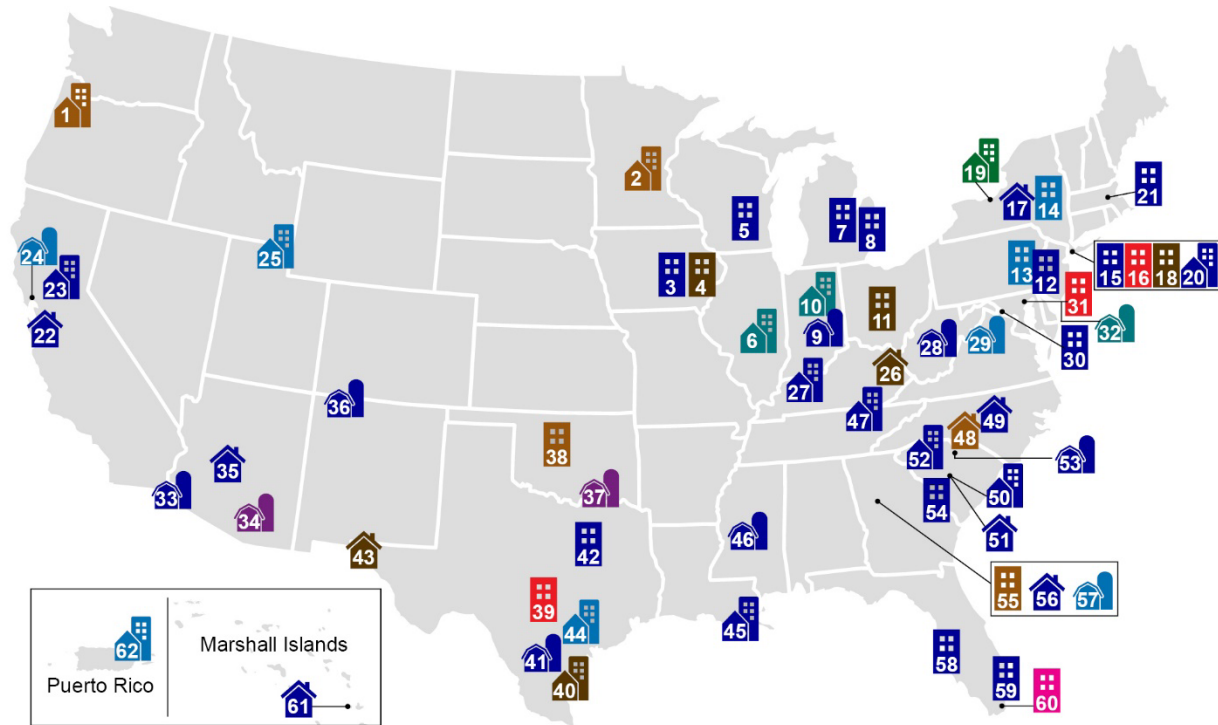
Each grantee brought a unique context to the project. Almost 60 percent of grantees (36 grantees) previously received OPA TPP grant funding to implement evidence-based teen pregnancy prevention programming. Several more had received or continued to receive other federal grant awards relating to teen pregnancy, youth parenting, or reproductive health through OPA or other federal agencies.³ Through this past and present experience, together with other state and local efforts, many grantees and communities began their TPP20 Tier 1 projects with robust, pre-existing local networks, services, and advisory groups.

The majority of TPP20 Tier 1 grantees were non-profit agencies/community-based organizations (56% of grantees). The balance were: government agencies (state, local, county, or tribal) (21%); colleges and universities (13%); and hospitals/clinics, faith-based organizations, and school districts (10%). Grantees were headquartered in all regions of the United States, including the territories of Puerto Rico and the U.S. Marshall Islands, and served a mix of urbanities.⁴ Across the grantees, about 40 percent focused their services in urban settings, 21 percent in rural settings, and about 16 percent in suburban settings. The balance served youth in a mix of urbanities. See Exhibit 2-1 below.

³ These included Sexual Risk Avoidance Education (SRAE) or Personal Responsibility Education Program (PREP) grants through the U.S. Department of Health and Human Services' Family and Youth Services Bureau (FYSB), and Pregnancy Assistance Fund (PAF) or Title X grants through OPA.

⁴ Thirty-one TPP20 Tier 1 grantees were based in the South U.S. Census region, 10 in the Northeast, 10 in the West, and nine in the Midwest. The remaining two were in Puerto Rico and the Marshall Islands.

Exhibit 2-1. The TPP20 Tier 1 Grantees



1	Multnomah County Health Department
2	Hennepin County*
3	EyesOpenIowa
4	Planned Parenthood of the Heartland, Inc.
5	Boys & Girls Clubs of Greater Milwaukee
6	Illinois Department of Human Services
7	Bethany Christian Services of Michigan
8	Teen HYPE Youth Development Program
9	Health Care Education and Training, Inc.*
10	Indiana State Department of Health
11	The Research Institute at Nationwide Children's Hospital
12	AccessMatters
13	Temple University
14	Adelphi University
15	Cicatelli Associates, Inc.
16	Fund for Public Health in New York, Inc.
17	Integrated Community Alternatives Network, Inc. (ICAN)*
18	Planned Parenthood of Greater New York, Inc.
19	Sodus Central School District*
20	The Children's Aid Society
21	Meeting Street Massachusetts
22	Planned Parenthood Mar Monte, Inc.*

23	PRO Youth and Families, Inc.
24	The Regents of University of California, San Francisco
3	EyesOpenIowa
4	Planned Parenthood of the Heartland, Inc.
5	Boys & Girls Clubs of Greater Milwaukee
6	Illinois Department of Human Services
7	Bethany Christian Services of Michigan
8	Teen HYPE Youth Development Program
9	Health Care Education and Training, Inc.*
10	Indiana State Department of Health
11	The Research Institute at Nationwide Children's Hospital
12	AccessMatters
13	Temple University
14	Adelphi University
15	Cicatelli Associates, Inc.
16	Fund for Public Health in New York, Inc.
17	Integrated Community Alternatives Network, Inc. (ICAN)*
18	Planned Parenthood of Greater New York, Inc.
19	Sodus Central School District*
20	The Children's Aid Society
21	Meeting Street Massachusetts
22	Planned Parenthood Mar Monte, Inc.*
23	PRO Youth and Families, Inc.
24	The Regents of University of California, San Francisco
25	Utah State University
26	Mountain Comprehensive Care Center, Inc.*
27	YMCA of Greater Louisville*
28	Mission West Virginia, Inc.
29	James Madison University
30	Sasha Bruce Youthwork, Inc.
31	Baltimore City Health Department
32	Maryland Department of Health
33	Campeños Sin Fronteras
34	Pascua Yaqui Tribe
35	Touchstone Health Services
36	Capacity Builders, Inc.
37	Choctaw Nation of Oklahoma
38	Oklahoma City County Health Department
39	Austin/Travis County Health and Human Services Dept.
40	Coastal Bend Wellness Foundation*
41	Community Action Corporation of South Texas
42	North Texas Alliance to Reduce Unintended Pregnancy in Teens
43	Project Vida Health Center

44	University of Texas Health Science Center at San Antonio*
45	Institute of Women and Ethnic Studies
46	Delta Health Alliance, Inc.
47	Centerstone of Tennessee, Inc.
48	Cabarrus Health Alliance*
49	SHIFT NC
50	Fact Forward
51	South Carolina Center for Fathers and Families
52	Spartanburg Regional Healthcare System Foundation
53	The Children's Council
54	Augusta Partnership for Children, Inc.
55	Fulton County Board of Health
56	Georgia Campaign for Adolescent Power and Potential, Inc.
57	Morehouse School of Medicine
58	Life-Skills, Empowerment and Development Services, Inc.*
59	OIC of Broward County, Inc.
60	Trinity Church, Inc.
61	Youth to Youth in Health*
62	Carlos Albizu University

Legend

Urban
 Suburban
 Rural
 Mixed Urbanities
 * FY21 grantees

County government agency
 Private non-profit agency/community-based organization
 University or college
 State government agency
 City/town government agency

Hospital, clinic, or other healthcare provider
 Tribal government agency
 Faith-based organization
 School district

Sources: Grantee applications, pre-interview forms, and interviews with grantees.

2.2 Community and Organizational Context

The communities served by TPP20 grantees varied widely in geographic size, population density, and demographics. Grantees worked in communities that ranged from rural American Indian reservations to urban centers such as Detroit and New York City. Service areas ranged from a few ZIP codes to multiple counties within a state. A few grantees considered all or most of a state as their service area. Most often, grantees defined their service areas by counties, school districts, ZIP codes, or city or town boundaries. While most service areas were contiguous, some were not.


Within their service areas, many grantees focused on specific populations defined by race, ethnicity or tribal background, age group, or school grade (e.g., 13- to 19-year-olds, seventh- and ninth-graders), gender identity, sexual identity, experience (e.g., parenting teens), or system-involvement (e.g., youth in foster care). Several grantees exclusively focused on one or more subpopulations of youth, such as Black/African American teen males or Latinx/Hispanic middle and high school students.

Grantee locations, reach, and the locations of pre-existing partnership networks played an important role in their choice of service areas. In general, grantees selected TPP project service areas based on their own location, their existing geographic reach, and their partner networks. For some grantees, concentrations of youth in specific focus populations (e.g., a specific racial or ethnic group, youth in foster care) also played a role in choosing a service area. For example, one grantee focused on tribal lands and adjacent towns to reach Native American youth. Another grantee served ZIP codes that fed into specific schools with a high percentage of students eligible for free or reduced-price lunch.

Some grantees used multi-tiered, data-driven approaches to identify their service areas. This took the form of community needs assessments, focus groups, and conversations with youth and community members; gathering input from partners; and drawing on their own knowledge and experiences working in specific communities. Needs assessments typically used health department or other publicly available data to identify counties or ZIP codes with the highest teen birth rates, stratified by race and ethnicity. Other common indicators were poverty levels, educational outcomes, availability of youth-friendly services, and STI rates, which many grantees found to be increasing in recent years. Through interviews and focus groups with youth, parents, caregivers, and service providers, projects also aimed to better understand community and population needs, available services, perceptions of existing services, priorities, and concerns community-wide. These assessments not only helped grantees pinpoint geographic areas, settings, and populations in most need of support, but also helped some grantees understand the existing resources available to these populations and how they were used and perceived.

Many grantees had previous TPP funding; all grantees had organizational goals and missions that aligned with preventing unintended teen pregnancy. Whether through OPA or other federal grants, projects with prior federal funding for teen pregnancy prevention had a jump-start both on assembling partners and communities in coalitions, networks, community advisory groups, and youth leadership councils and on identifying and implementing EBPs. The grantees without previous OPA funding generally had other extensive experience leading programs in adolescent health, sexual and reproductive health, or teen parenting in their communities. The Tier 1 grant program aligned with their organizational missions and was often described as a “natural fit” to complement and expand their current work. All grantees saw the TPP20 Tier 1 grant as a new opportunity to reach more youth.

Many grantees also said that they saw this grant as an opportunity to go beyond pregnancy prevention, to strive for improved adolescent mental and physical health, and to address root causes of teen pregnancy and STIs. In addition to developing systems-thinking approaches, many incorporated principles of positive youth development and selected EBPs with a focus on healthy relationships and life skills. Sometimes this focus was reflected in their TPP project names, such as the *Changing the Landscape for Adolescent Health Equity and Access in Central Ohio* and *Flourishing and Strong Teens* projects.



"OPA HAS REALLY BEEN NICE ABOUT, KIND OF, THAT TRANSITION AWAY FROM JUST SEXUAL HEALTH EDUCATION TO OPTIMAL ADOLESCENT HEALTH. SO THE FLEXIBILITY TO MAYBE THROW IN SOME EXTRA CONTENT THAT THE SCHOOLS REALLY CARE ABOUT—SO HUMAN TRAFFICKING, SEXTING, MEDIA SAFETY—THOSE ARE REALLY GREAT SELLING POINTS. AND THAT OPENNESS BY OPA TO...BRING SOME OF THAT IN, I THINK HAS HELPED US LEVERAGE OUR TIME."

Grantee

3. TPP Project Structures and Roles

When designing their TPP projects, grantees had to determine their project's structure, which roles they would handle directly (such as providing EBP programming or delivering supportive services), the partners they would need to provide additional skills and capacities, the role partners would take in the project, and how the grantee and partners would work together to deliver the TPP project. This section describes the roles grantees and partners held across the 62 TPP projects, how they worked together, and how partners were selected.

Key Takeaways

- **Partnership and partner roles evolved throughout the grant period.**
- **Many grantees viewed their partners as their main strengths or facilitators of success.**
- **Grantees were often able to identify “anchor” partners that were central to implementation.**
- **Though grantees typically had pre-existing relationships with partners, they strategically chose new partners to fill specific needs.**
- **Challenges related to the COVID-19 pandemic included changing needs and priorities that significantly affected partnerships.**

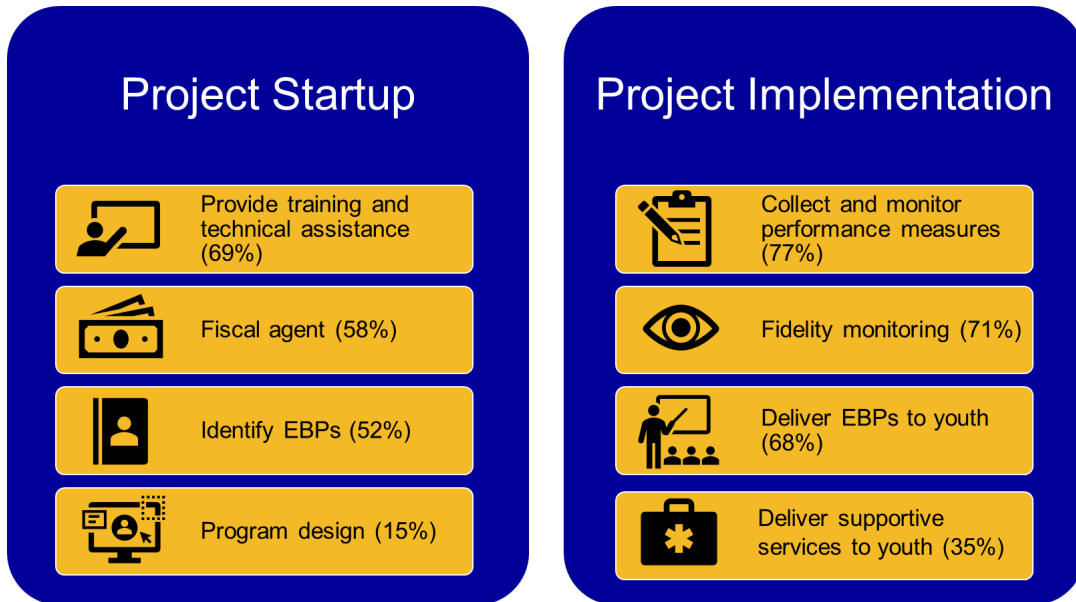
3.1 Grantee Roles

Grantees' roles varied by project, though some roles were more common and universal than others (Exhibit 3-1). During the project startup phase, most grantees (69%) took on the role of providing training, technical assistance, and other capacity-building to their staff or partners in preparation to launch and implement the project. Almost three-fifths of grantees (58%) reported that they held the role of fiscal agent, meaning they disbursed grant funding to other partner organizations to deliver part of the TPP project's programming. Most grantees with a fiscal agent role also held other implementation roles on the project. A couple of grantees served as fiscal agents only and worked with partners to design and implement the project, though this was uncommon. About half of grantees (52%) identified which EBPs the project would deliver; the others left this role, at least in part, to their partners.

Once projects began implementation, most grantees (more than 70%) reported taking the lead on contract- and compliance-related activities, including collecting and reporting performance measures and monitoring EBP fidelity. About 30 percent of grantees delivered supportive services directly to youth as part of the project.

SECTION 3: ROLES AND PROJECT STRUCTURES

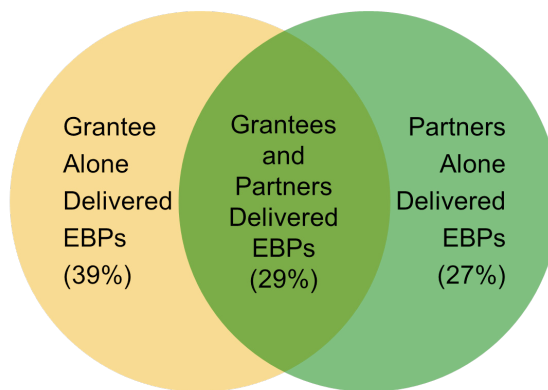
Exhibit 3-1. Grantee Roles on the TPP Project, by Phase



Source: Pre-interview forms completed by grantees and information provided in interviews.

Overall, grantees were more likely than partners to deliver EBPs directly to youth. However, this role varied across projects, settings, and communities. As shown in Exhibit 3-1 above, 68 percent of grantees delivered EBPs to youth. But for 29 percent of projects, *both* grantees and partners delivered EBPs (Exhibit 3-2 below). The decision to split this role with partners often depended on site and setting capacities and preferences. Some partners served as setting provider and delivered EBPs, and others served as setting providers only. For almost as many projects (27%), partners alone delivered EBPs to youth, with grantees serving as fiscal agent and providing other support, monitoring, mobilization, and supportive services, based on program model and capacity.

Exhibit 3-2. Role of Grantees and Partners in EBP Delivery

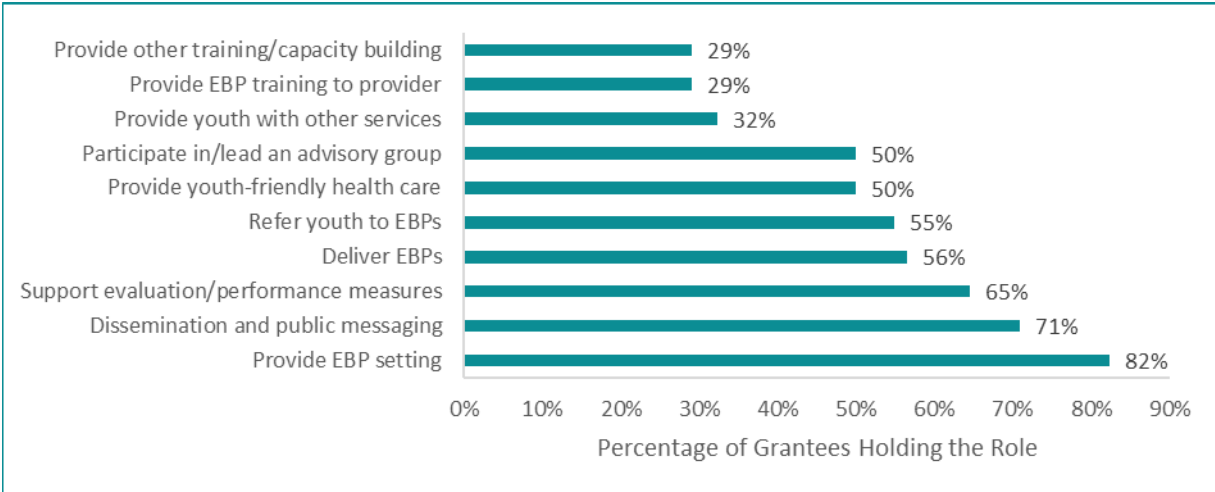


Source: Pre-interview forms completed by grantees and information provided in interviews.
 Note: Percentages do not add to 100% because the delivery roles were unclear for three grantees.

3.2 Partner Roles

For more than half of the TPP projects, partners delivered at least some EBPs (Exhibit 3-3). Some also served as the primary contact with implementation sites, recruited youth and adult participants, and facilitated administrative tasks such as securing memorandums of understanding with other partners and collecting parent/caregiver consent forms. In some cases, partners or coalitions of partners engaged in project design from as early as the application stage. Most commonly, partners, especially schools, functioned as settings for EBPs, which usually meant that they also recruited participants.

Exhibit 3-3. Roles Held by Partners across All Tier 1 Grantees



Source: Pre-interview forms completed by grantees, and information provided in interviews.

Beyond delivering EBPs, partners played other key roles in project implementation and administration such as collecting data and conducting community needs assessments. Many grantees worked with external evaluators to support required reporting to OPA and continuous quality monitoring and improvement for the project. Partners were also a key source for training and technical assistance to ensure that partners, community advisory group, and other members of the community had up-to-date and medically accurate knowledge on topics relevant to adolescent health and well-being. Partners also led community engagement by convening community advisory groups, gathering community input, organizing and hosting outreach events, or leading workshops for community members.

Partnerships evolved throughout the grant period. Sometimes partnership shifts were planned, such as when partners provided training and technical assistance up front (e.g., leading “train the trainer” sessions for facilitators) and then largely left the project. At other times, partnerships ended unexpectedly (see [Section 3.4](#)), and partner turnover caused logistical challenges and delays. Projects also brought on new partners throughout the grant period, primarily to increase reach or provide additional supportive services.

Grantees often saw their partners as their main source of strength and facilitators of success for their projects. Grantees often chose partner organizations with expertise in providing health education in their service area communities, which helped the project gain

community trust and reduced some administrative and recruitment barriers. Many grantees reported that, beyond providing the needed physical infrastructure and recruiting youth for participation, partners' skills in project management, facilitation, healthcare delivery, evaluation, and community organizing helped them implement their TPP projects efficiently and effectively.



"IT'S THE PEOPLE THAT WE'VE FOUND THAT ARE THE BIGGEST [FACILITATOR]. THOSE KIND OF LOCAL CHAMPIONS, WE ALWAYS SAY, WHO KNOW HOW TO NAVIGATE THAT AREA AND THAT SYSTEM AND THE NETWORK OF FOLKS DOWN THERE; THEY REALLY HELPED US GET ACCESS INTO THE SCHOOLS, AND TO OTHER SPACES DOWN THERE THAT WE WEREN'T ABLE TO DO ON OUR OWN. SO, DEFINITELY THE PEOPLE—CERTAIN ORGANIZATIONS, THE HEALTH DEPARTMENT, SOME OF THOSE WERE HELPFUL WITH SHARED MISSIONS AND THAT KIND OF THING."

Grantee

Trusted community partners gave grantees buy-in and access to youth in new ways. Grantees described the

value of partners that were integrated into multiple aspects of the program, such as staff working for a local partner organization as well as serving on a school board. Grantees often described key individual partners or partner staff members as "champions"—people deeply invested in improving community health and vital in overcoming logistical and cultural barriers.

3.3 Project Structures

Project structures varied based on factors such as grantee and partner roles and capacities, logic models, key components of the project, local community needs, resources and constraints, and geographic area. For example, grantees that had multiple offices across a large service area or that had a compact service area were more likely to deliver EBPs directly than were those with a single office and a large service area (e.g., multiple cities or counties throughout a state). Furthermore, grantees that delivered supportive services directly or had direct, ongoing collaborations with service providers were more likely to incorporate those services directly into their projects than were grantees that did not. Partner reach, pre-existing relationships, and capacities also played a role.

Ultimately, projects generally conformed to one of three structures (see Exhibit 3-4 below):

1. **Grantee delivers EBPs, partners provide settings and supportive services.** In these approaches, grantee staff delivered all EBPs and worked with partners that provided settings and supported participant recruitment and coordination. Partners also delivered supportive services, either as an integral part of the TPP project or separately from it. Partner staff and grantee staff, including EBP facilitators, referred youth to supportive services.
2. **Grantee provides support, partner(s) deliver EBPs, settings, and supportive services.** In these approaches, grantees managed project funding and reporting to OPA and made sub-awards to one or multiple partners, which delivered EBPs and provided supportive services or referred youth. Grantees sometimes provided training and technical assistance to partners and community members or coordinated systems-thinking approaches and community and youth engagement.

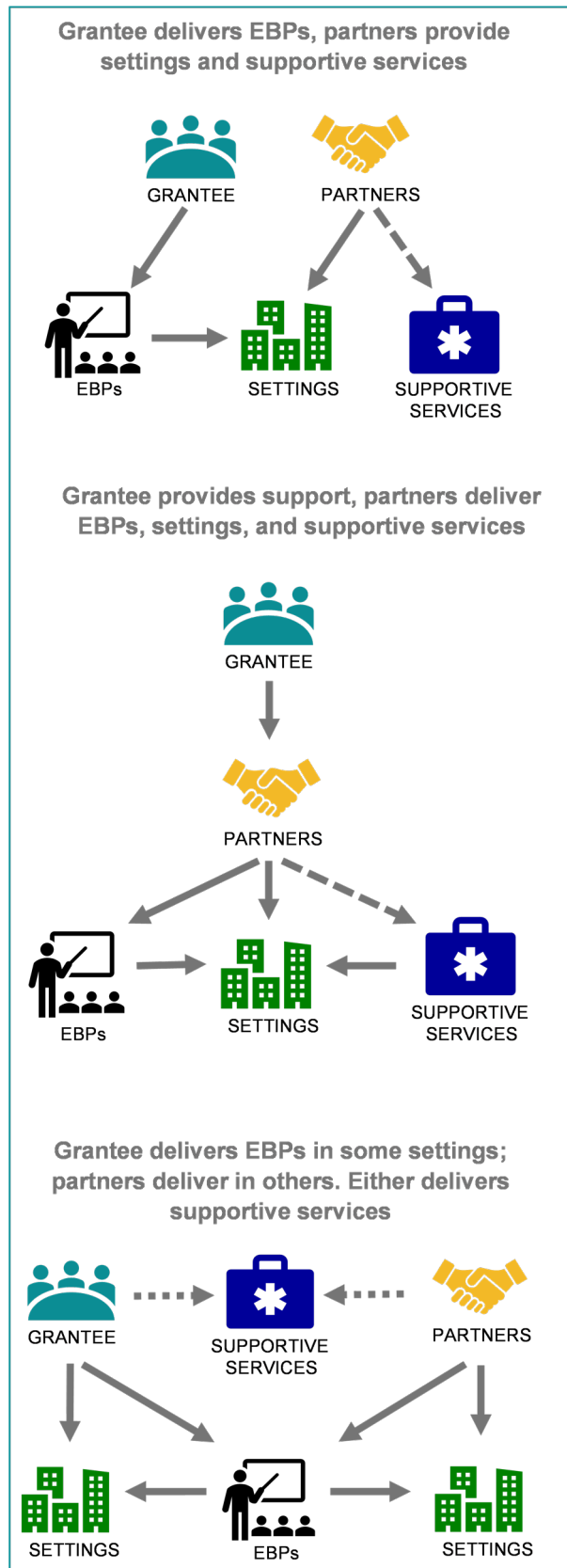
3. **Grantee delivers EBPs in some areas or settings; partners deliver in others. Either delivers supportive services.** In these approaches, grantees and partners implemented a combination of key project elements. Though the grantee delivered EBPs in some or most settings or communities, some partners delivered EBPs in specific settings (e.g., where the partner was also the setting host) and communities, giving the project wider reach. Depending on the details of the structure, the grantee, partners, or both connected youth to supportive services.

3.4 Partner Identification and Recruitment

When choosing partner organizations, grantees had to consider both the needs within the project and the skills and relationships potential partners could bring to the project. Grantees brought on both formal and informal partners. Formal partners had a memorandum of understanding (MOU) or contract to participate in the project, or were sub-awardees who received a portion of the TPP20 Tier 1 grant funds. Informal partners, which did not have a contract or receive TPP funding, often provided support or input on the project design or components throughout the project. The number of formal partners (those with a sub-award or an MOU for the project) ranged from one in some projects to as many as 75. The median number of formal partners was 7.5.

Grantees were often able to identify “anchor” partners that were central to implementation, such as setting providers (e.g., schools and school systems) that worked with them collaboratively to implement the EBPs and related programming or agencies that provided an important service such as healthcare or child welfare services. Common partner types included non-profits or community-based organizations, state or local health departments, schools and school districts, healthcare providers, universities, and evaluation consultants. Several grantees also partnered with churches and child welfare agencies.

Exhibit 3-4. Common Tier 1 Project Structures

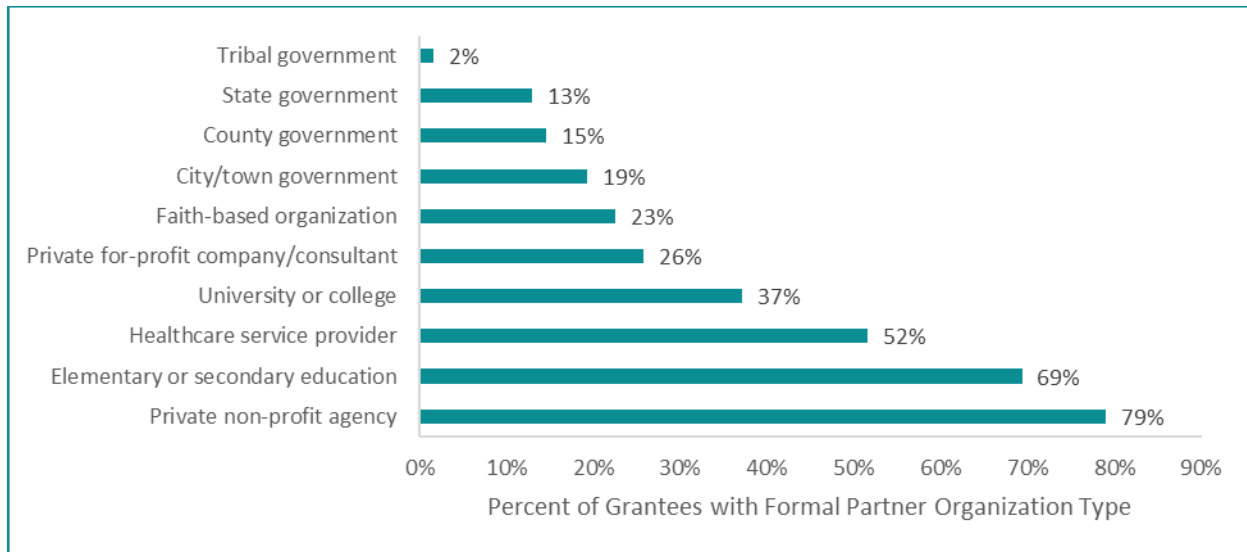


SECTION 3: ROLES AND PROJECT STRUCTURES

Almost 80 percent of grantees had at least one formal partnership with a non-profit agency or community-based organization (Exhibit 3-5). These agencies often delivered EBPs to youth or provided other services essential to youth well-being. Some also served as settings for EBPs. Almost 70 percent of grantees had formal partnerships with schools or school districts. Most often schools served as settings or providers for EBPs, though some provided additional services and a few delivered EBPs to youth with support from the grantee or other partners.⁵

About a quarter of grantees had formal partnerships with private for-profit companies or consultants. Most often, these partners provided technical assistance and training on EBPs or other topics, served as local evaluators and performance management support, or helped grantees conduct community and youth engagement or dissemination.

Exhibit 3-5. Formal Partner Organization Types



Source: Pre-interview forms completed by grantees and information provided in interviews.

Though grantees typically had pre-existing relationships with partners, including from prior TPP grants, they strategically chose new partners to fill specific needs. They chose partners for their: (1) ability to increase reach (e.g., partnering with school districts to access those students), (2) involvement with the selected focus populations, (3) trusted reputation in the community, (4) knowledge and expertise in specific areas, location, and (5) capacity for providing supportive services. For example, because most grantees did not provide clinical services, they looked to partner with local youth-friendly healthcare providers to which they could refer youth participants.⁶ Enthusiasm for and commitment to adolescent sexual and reproductive health was an important consideration in choosing a partner, especially in regions that historically have opposed providing this content to youth. Many grantees maintained their

⁵ Almost all projects delivered in at least some in-school settings, so either the share of grantees with school-based formal partners was underreported or some grantees delivered EBPs in school-based settings without a formal partnership.

⁶ TPP20 Tier 1 grant funds could not be used to provide direct healthcare or clinical services to youth. However, if grantees provided healthcare services as part of their everyday work (using funding other than the TPP20 Tier 1 grant) they could refer TPP participants to those services. Grantees were also able to refer participants to external service providers.

SECTION 3: ROLES AND PROJECT STRUCTURES

community advisory groups from previous grants and used them as a sounding board for identifying new partners.

Not all partners had formal MOUs or received grant funds. Many contributed informally, helping to organize community events, provide feedback on project activities, connect grantees to other partners, share materials and resources, and provide or facilitate access to supportive services.

Challenges related to the COVID-19 pandemic significantly affected partnerships. The pandemic and accompanying public health emergency led priorities and capacities to shift among partners.⁷ In many cases, these

changes made it necessary to restructure the partner-grantee relationship. Most partners were recruited several months before the start of the 2020-2021 school year. Once the school year started, many simply did not have the capacity to bring in outside organizations or were not permitted to do so because of social distancing protocols in place to reduce

the risk of transmitting the COVID-19 virus. This was often the case with juvenile detention centers and some foster care group homes. Partners, especially schools providing the setting for EBPs, struggled with other urgent priorities, such as declining academic performance among youth and challenges related to virtual learning regarding access to laptops or stable internet connections and difficulty engaging students in virtual classes.

Other challenges that affected partnerships, not necessarily connected to the pandemic, included: limited staff capacity to take on additional work; staff turnover; misalignment in mission and work; and changes in state laws or policies that created additional barriers to participation. Grantees tried to be flexible and work with partners to address challenges, but at times needed to break ties with a partner. Some partners, especially small, local organizations, also struggled with the administrative requirements of federal funding.



"[GROUP HOMES ARE] A BIG ONE FOR US, BECAUSE WE TRIED TO DO THAT EARLIER THIS YEAR, AND WE ACTUALLY HAD IT ALL SET UP AND EVERYTHING, BUT THEN THE GROUP HOMES HAD COVID SPREADING, AND SO THAT WAS COMPLETELY SCRATCHED OUT."

Grantee

⁷ When the public health emergency was declared in March 2020, several precautions were put in place to reduce transmissions including stay-at-home orders and social distancing practices, which required people to stay at least six feet from others. For more information on how project implementation was affected by the pandemic, please see Garman et. al., forthcoming.

4. Focus and Reach of the TPP Projects

When grantees selected their service area for the TPP project, they also had to decide whether to serve all youth in the geographic area or narrow their reach to specific subpopulations with greater need. Grantees' overall reach goals needed to take into account the short duration of the grant period (two or three years). Some grantees adjusted their reach goals after the grant period began to incorporate limitations that spurred from the ongoing COVID-19 public health emergency, which affected the overall number of youth that grantees could realistically reach.⁸

This section describes how grantees selected the populations served and the barriers and facilitators they encountered in reaching and serving those youth.

Key Takeaways

- Grantees chose focus populations that had the highest need or risk for unintended teen pregnancy or STIs, were aligned with organizational mission, were integral to local service priorities, or because key partner organizations had connections with these populations.
- Grantees leveraged and expanded partnerships to extend reach and serve additional populations.
- Projects faced substantial hurdles to both recruiting youth and delivering EBPs in all intended sites, settings, and communities.
- Grantees worked with communities and partners to increase reach and overcome challenges including by changing settings, partners, or EBPs.
- Grantees facilitated open communication and engaged partners to respond to community needs.

4.1 Populations Served and Reach

Grantees used data from community needs assessments to identify populations with high rates of teen pregnancy (or teen births) and STIs and that lacked resources in teen pregnancy prevention education.

Grantees chose focus populations that had the highest need or risk of unintended teen pregnancy and STIs, were aligned with organizational mission, were integral to local service priorities, or because key partner organizations had connections with these populations. When identifying focus populations, some grantees considered root causes and factors related to unintended teen pregnancy, such as local educational outcomes (e.g., high

⁸ The public health emergency was imposed in March 2020. By May 2021, vaccines for the virus had become widely available and had been approved for use in adolescents. However, in December 2021, a new variant of the virus arose that was more easily transmissible than prior variants. This led some areas to reinstate practices, such as social distancing. By early- to mid-2022, transmission levels had reached "low" or "medium" levels in most areas of the United States. Though many communities had returned to in-person engagements by mid-2022, the official end of the public health emergency was not declared in the United States until May 2023.

school graduation rates), unemployment, poverty rates, and crime rates; they chose service areas with the aim of serving youth most affected by these factors. For many projects focused on specific populations within a geographic area, grantees chose their focus populations based on organizational mission, experience, or connections. For example, one grantee with a project serving participants in foster care or involved with child protective services was itself a child welfare service provider and had close relationships with several other local foster care agencies.

Some projects also focused on specific age groups, which was most evident in school-based settings for EBPs, where students within a specific class or grade are all close in age. Some delivered EBPs to students in middle schools, high schools, elementary schools, or in some combination of these school types.⁹ For a few grantees, middle or high schools included alternative schools where all students were involved with the juvenile justice system. A few delivered EBPs to older teenagers through college and university settings.

Grantees chose age groups and associated settings based on factors such as community needs, models for when EBPs were more essential (e.g., for pre-adolescents or older adolescents), community norms and priorities (e.g., some communities were more comfortable with the concept of providing EBPs to older teens than to younger teens), and willingness of the setting partner to collaborate with the grantee and its other partners. Many projects aimed to reach youth in multiple age groups and settings.

Nearly all grantees reported selecting focus populations within their geographic areas—often youth in certain age ranges. However, only some grantees further narrowed their focus to populations based on their demographics or other attributes. Among those that did, commonly selected focus populations included:

- Teens involved in the juvenile justice system
- Teens who identified as a specific race or ethnicity, including Black/African American, Hispanic or Latina/e/o, Native American, or Pacific Islander
- Parents and caregivers
- Expectant and parenting youth
- Youth with child welfare system involvement
- Youth with mental, emotional, and/or behavioral health challenges
- Youth who identified as LGBTQ2S+

Grantees leveraged and expanded partnerships to extend reach and serve additional populations. One key element of the TPP20 Tier 1 grants was the *reach* of their EBPs and other programming—in other words, how many participants they were able to serve.

Saturation—or reaching a critical share of specific populations and communities with the aim of making measurable change and change beyond the populations directly served by EBPs—was an important context for the goal to expand reach. Because implementation occurred during an

⁹ All the projects delivering EBPs in elementary school classrooms provided them to fifth-grade classes.

evolving public health emergency, many grantees had to lower their reach goals over the course of the grant period to reflect the reality on the ground.

Initial annual reach goals varied from a low of fewer than 100 youth to highs of more than 7,000. Most grantees aimed to achieve their reach goals through serving youth in a mix of school-based and community-based settings and working with partners to recruit participants. Selecting school-based settings and schools as partners generally provided grantees with access to the most youth, especially if projects were able to deliver EBPs as part of an existing class period, such as Health or Physical Education.

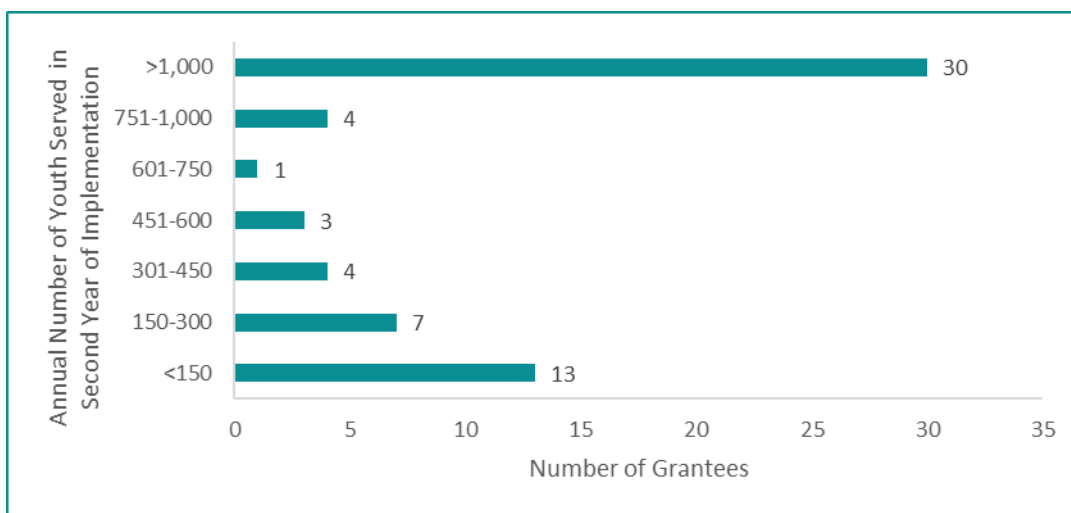
When grantees that delivered EBPs in school-based settings included additional out-of-school settings and partners, they were able to further extend their reach. For example, grantees could reach specific focus populations which were not possible to identify in schools or which were not present in schools. They could also reach youth who were not in the selected grade year(s) or class, or were part of a population that spanned a range of different ages. For some communities, community-based settings and recruiting partners were the only or best options to reach youth because of logistical, legal, or other challenges to serving youth in schools.

As shown in Exhibit 4-1, almost half of TPP20 Tier 1 grantees were able to reach more than 1,000 youth in EBP programming during their second year implementing the project, despite the obstacles of delivering EBPs during the pandemic. Among the other half, about one-fifth of grantees reached fewer than 150 youth in their second year of programming. Grantees had a smaller reach for a number of reasons, including purposeful goals of serving a focused and, thus, smaller population; and unintentional delays in and challenges with program implementation, including youth recruitment and retention. Even following a return to in-person learning after COVID-19 restrictions lifted, many setting partners were unwilling to allow outside personnel into their buildings to deliver programming, schools were focused on making up for lost learning time in academic subjects, and some communities were out of the habit of attending in-person activities that were not required.



“OUR TEAM HAS REALLY MADE STRONG CONNECTIONS WITH COMMUNITY PARTNERS... BECAUSE I KNOW, WHILE IN THE GRAND SCHEME OF THINGS, REACHING 1,000 TEENS IN URBAN AREAS MAY NOT BE SO HIGH. BUT... WE ARE REACHING A FULL COUNTY, ALMOST, ALL THE STUDENTS IN A PARTICULAR AGE GROUP AND IMPLEMENTING THROUGH SCHOOLS. I REALLY KIND OF [ATTRIBUTE] THAT TO THE TRUST THAT THE TEAM HAS BUILT WITH THESE SCHOOL PARTNERS AND WITH THEIR COMMUNITY PARTNERS. SO I THINK THE FACT THAT THEY’VE BEEN ABLE TO REACH THE NUMBER OF TEENS, EVEN THROUGH COVID AND THROUGH THIS PERIOD, I THINK THEY’VE BEEN WILDLY SUCCESSFUL.”

Grantee

Exhibit 4-1. Number of Youth Served by Projects in the Second Year of Implementation

Source: Annual performance measures reported by grantees to OPA.

4.2 Facilitators and Barriers for Recruiting and Retaining Participants

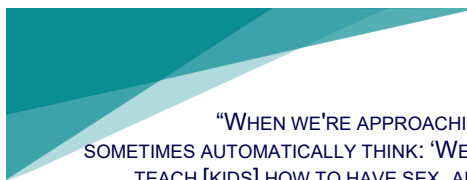
Many grantees faced substantial challenges in achieving their reach goals, driven at least in part by restrictions on in-person program delivery stemming from the COVID-19 pandemic and the stresses on education systems, education and service providers, partner staff, families, and youth that persisted after restrictions were lifted (see [Section 6](#) for more on these topics). Other challenges included restrictions in state laws or policies (such as a switch from opt-out to opt-in parent/guardian consent to receiving EBPs), community norms about providing sexual and reproductive health education, and partner capacity.

To overcome these challenges, projects increased their reach and bolstered participant and community engagement by: (1) expanding settings and partners, community and partner outreach and peer engagement; (2) careful EBP selection; and (3) providing other services to meet community priorities.

Projects faced substantial hurdles to both recruiting youth and delivering EBPs in all intended sites, settings, and communities. During the first two years of the COVID-19 pandemic (which coincided with the first two years of the grant period for most grantees), many communities faced restrictions on in-person learning. This meant that to deliver EBPs, many projects had to do so remotely, coordinating with schools and service providers who were delivering core academic courses and other activities remotely. School-based settings continued to provide educational services remotely on platforms such as Zoom, but many schools and teachers found the new formats challenging. Consequently, some schools allowed grantee projects to deliver (swiftly adapted) EBPs remotely, but others did not. Furthermore, some grantees reported that even once restrictions on in-person programming were lifted, many setting hosts still were wary of bringing in outside facilitators for EBPs; others were concerned about losing academic time to EBP facilitation.

Beyond the challenges associated with the pandemic, projects faced several local challenges that affected reach and implementation. These included state laws restricting content or delivery in school-based settings, community distrust or lack of engagement, difficulty gaining the

support of schools and school staff, and limits to partner capacity. Some grantees found that partners that had agreed to host, recruit for, or deliver EBPs did not have the capacity expected, and that changes in partners, partner roles, or settings were needed to deliver programming. For some settings, such as community-based or clinical settings, scheduling and transportation posed challenges to both participant recruitment and retention.



“WHEN WE’RE APPROACHING A PARTNER...THEY SOMETIMES AUTOMATICALLY THINK: ‘WELL, YOU’RE TRYING TO TEACH [KIDS] HOW TO HAVE SEX, AND WE DON’T WANT TO HAVE THAT CONVERSATION. THEY’RE TOO YOUNG. WE DON’T WANT TO PUT THAT IN THEIR HEAD.’ AND THAT’S NOT REALLY WHAT WE’RE DOING. SO, I THINK, THAT HAS BEEN AT TIMES VERY DIFFICULT FOR US, HAVING TO LAY A FOUNDATIONAL EDUCATION FOR A LOT OF THE PARTNERS BEFORE WE EVEN TALK ABOUT HOW TO PARTNER TOGETHER. BECAUSE THEY JUST REALLY DON’T KNOW.”

Grantee

Grantees worked with communities and partners to increase reach and overcome challenges by changing settings, partners, or EBPs, if needed. Some projects used community meetings, outreach materials, and one-on-one communication to discuss the EBPs, their content, the need for them in the community, and their benefits with parents, caregivers, community members, and prospective partners. Forums such as town-hall meetings allowed community members to ask questions. A few projects with existing youth advisory or leadership groups engaged youth directly in outreach from the start, including supporting youth to speak at public meetings and engaging their help in designing recruitment and outreach materials. Grantees also chose EBPs that they believed would be most welcome in the community. For some this meant a focus on healthy relationships, decision-making skills, consent, and communication; for others, this meant comprehensive sexual health education programming.

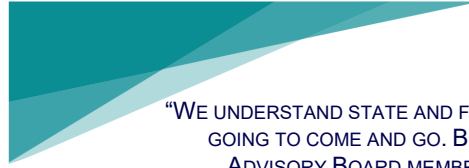
Some grantees faced state or county laws that required active parental consent (“opt-in”) for minors to participate in EBPs or placed restrictions on what content could be taught in schools. Others had state laws requiring that such topics must be taught in schools in certain grades or classes. For these states or counties, grantees were often able to offer EBPs as a means of supporting youth with evidence-based programming while alleviating some of the burden placed on schools and teachers to meet the state requirements.

In response to challenges related to the pandemic, some projects changed or increased settings and setting partners. A few grantees noted that the stresses and trauma stemming from the pandemic increased the demand for EBP delivery, because the EBPs they delivered focused on social-emotional communication skills or helped support youth experiencing trauma. Other grantees also found that they could increase partner, community, and setting cooperation by providing the EBPs together with other programming that communities felt was particularly important. Such programming addressed topics such as disaster preparedness and social media awareness.

Grantees facilitated open communication and engaged partners to respond to community needs. Grantees were strategic about engaging partners that could offer solutions through delivery of supportive services, such as deploying mobile health clinics to provide a variety of healthcare services in areas where they are not available.

To address concerns from parents and caregivers, many grantees proactively engaged them before EBP implementation began, through school presentations and community events. Grantees worked to keep communication open and transparent, finding that often having a

conversation was enough to dispel misconceptions or misinformation about the program. Grantees also involved partners in selecting EBPs or chose EBPs they knew would fit well with community and school needs, norms, and priorities to avoid conflict and help build support. (EBP features and selection are discussed in more detail in [Section 6.](#))



"WE UNDERSTAND STATE AND FEDERAL FUNDERS ARE GOING TO COME AND GO. BUT WE AS COMMUNITY ADVISORY BOARD MEMBERS ARE LIVING IN THIS COMMUNITY AND RAISING OUR CHILDREN IN THIS COMMUNITY. AND SO, WE'RE VERY MUCH ABOUT '[THE BOARD] IS LEADING.' IF THE FEDERAL FUNDER FITS, GREAT, LET'S DO IT! BUT WE'RE NOT CHANGING OUR LOGIC MODEL, OR OUR GOALS AND OBJECTIVES BASED ON FUNDERS. SO THE WORK IS REALLY ORGANICALLY HAPPENING IN THE COMMUNITY."

Partner Organization

5. Applying a Systems-Thinking Approach

Systems thinking was a new component for the TPP20 Tier 1 grants. It was intended to serve as an overarching framework and approach for each project. In practice, grantees that did not begin the project with a systems-thinking approach already in place found it difficult or impossible to comprehensively build and incorporate one into their overall project plans and goals during the two- to three-year period of the grants.¹⁰

Key Takeaways

- **Common overarching approaches to systems thinking included:**
 - *Directly involving multiple partners or formal systems.*
 - *Engaging and educating staff, partners, and other community members in the concept and language of systems thinking.*
 - *Focusing on the roles of parents, caregivers, and other trusted adults in the lives of teen participants.*
- **Despite receiving training on how to be a systems thinker, many grantees felt uncertain or underprepared to adopt the concept in a meaningful way.**
- **Some grantees were not able to fully describe an approach to systems thinking as part of their TPP20 Tier 1 grants, or their approaches were still evolving.**
- **Grantees that had pre-existing systems-level approaches and programs were able to develop comprehensive systems-thinking approaches for their TPP projects.**
- **Regardless of their level of experience with systems-thinking approaches, most grantees expressed a positive view of systems thinking overall.**

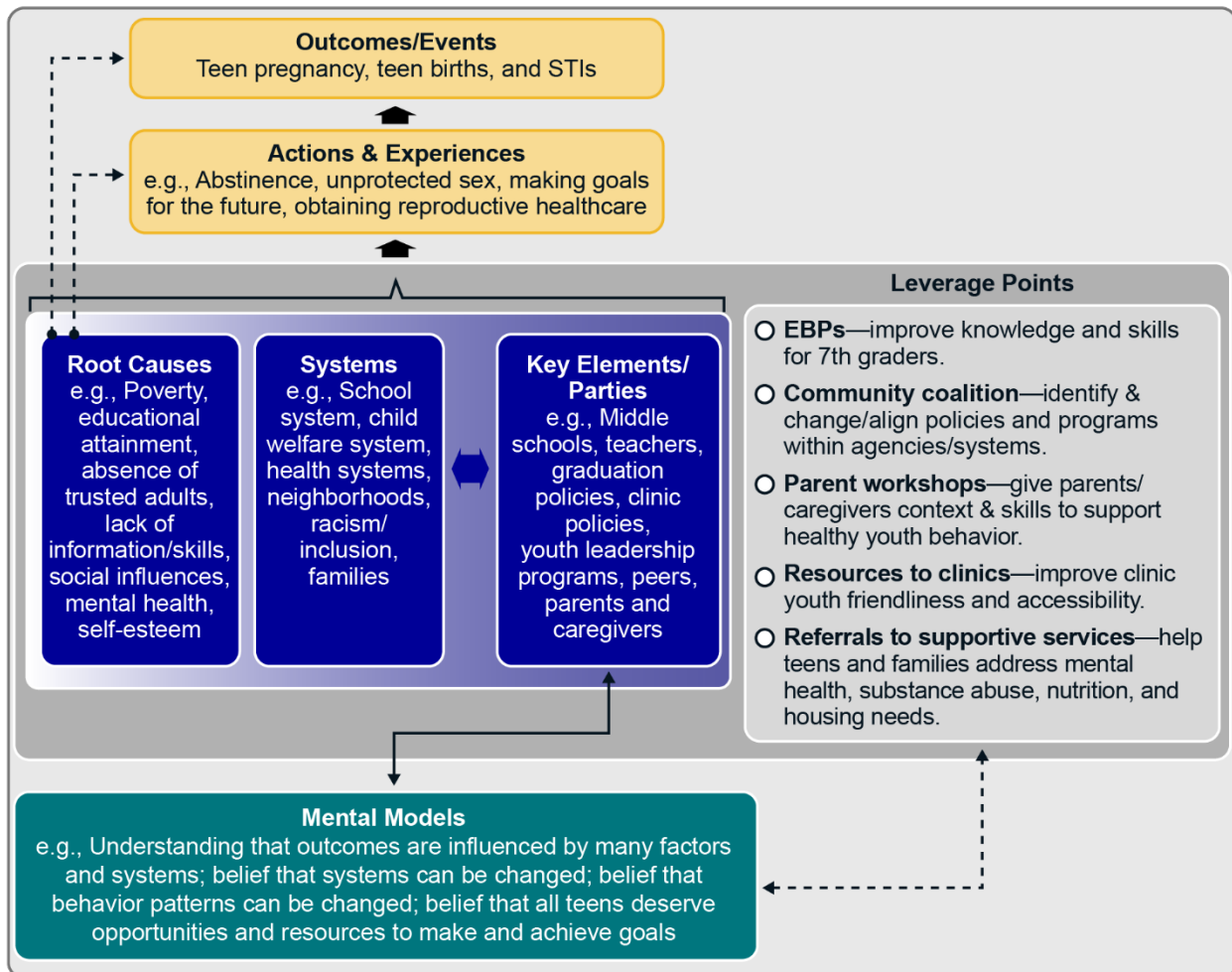
As OPA defined it, adopting a system-thinking approach included identifying (1) the **root causes** affecting outcomes; (2) the **systems** or big picture within which these root causes occurred; (3) the **key elements or parties** involved in these systems, such as agencies, policies, or people; and (4) the **leverage points** where it would be possible to enact changes or provide services to improve outcomes and opportunities. Systems could be defined in several different ways, ranging from formal agency-driven systems such as school systems or juvenile justice systems to social systems such as peer groups and families. As part of their approaches, grantees also identified common **mental models**, which are the sets of assumptions, beliefs, and values with which people understand the world, including systems. People's mental

¹⁰ The systems thinking element of the TPP20 Tier 1 grant program built on and formalized an earlier approach to ensuring holistic and sustainable support to prevent teen pregnancy, STIs, and related community disparities. In the TPP Tier 1B grants beginning in 2015, grantees were tasked with addressing multiple spheres affecting youth's lives by delivering EBPs in multiple distinct settings, forming multi-sector community advisory groups and youth advisory groups, and providing linkages and referrals to supportive services.

models—including how they perceive the roles that systems and key elements or parties have in affecting youth outcomes—could help shape or hinder approaches to serve youth and communities effectively.

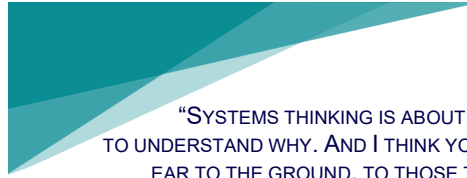
Exhibit 5-1 provides a schematic of a sample systems-thinking approach, with examples of what each component might include. The sample model is a combination of elements grantees incorporated into their projects, though individual grantees did not necessarily incorporate all components. OPA provided grantees with training on multiple models and empowered them to build their own approaches based on local resources, perspectives, understanding, and needs. Common models of systems thinking include *social-ecological* models focused on different groups and layers of influence in youth’s lives, and the *iceberg model*, based on the concept of unseen root causes and influences.

Exhibit 5-1. Example of a Systems-Thinking Approach



Source: OPA (2020).

OPA provided guidance and training on the use of systems thinking, but it afforded grantees discretion in how they chose to implement their approaches. In essence, grantees identified the key elements or parties within the selected system or systems—such as people, organizations, entities—that could affect rates of unintended teen pregnancy and aimed to determine how those key elements or parties can better work together to reduce those rates. In practice, grantees’ understanding of, experience with, and ultimate approaches to systems thinking varied substantially.



“SYSTEMS THINKING IS ABOUT JUST ALWAYS TRYING TO UNDERSTAND WHY. AND I THINK YOU GOT TO KEEP YOUR EAR TO THE GROUND, TO THOSE THAT ARE WORKING IN DIRECT SERVICE, BUT BE WILLING TO BE BRAVE TO ASK WHY QUESTIONS AND TRYING TO FIND WAYS TO COME UP WITH MORE EFFECTIVE STRATEGIES WITHIN OUR SYSTEMS. AND SOME FOLKS [THAT WE] HAVE ASKED [HAVE SAID], ‘OH, WE CAN’T DO THAT WORK. THAT’D BE TOO CONTROVERSIAL.’ I MEAN, I’VE NEVER—IT’S ALL ABOUT HOW YOU APPROACH IT.... MOST PEOPLE WANT WHAT’S BEST FOR YOUNG PEOPLE, PERIOD. AND SO SOMETIMES IT’S JUST THAT NO ONE’S EVER ASKED THE QUESTION, AND THEN THEY’VE NEVER EVEN THOUGHT THROUGH, ‘WELL, HOW DO WE DO THAT?’ THAT’S JUST THE WAY IT’S ALWAYS BEEN DONE. BUT MAYBE WE SHOULD LOOK AT IT DIFFERENTLY.”

Grantee

5.1 Systems-Thinking Approaches

Projects’ approaches to systems thinking varied significantly. Some focused on identifying key needs, systems, and community resources or training partners. Others tried to understand the roles of the myriad systems that touch youth’s lives. Still others focused on approaches using a coalition to understand and address different systems’ roles and provide services and alignment across systems.

About two-thirds of grantees described using systems-thinking approaches that directly involved multiple partners or formal systems. For example, projects involved members from the healthcare, school, and/or juvenile justice systems in their projects. However, many of the grantees that described involving multiple systems or partners could not articulate what role these organizations or systems had in their project’s approach beyond their involvement in an initial needs assessment or mapping. Some grantees focused on using advisory groups, coalitions, and other systems to connect service providers and other partners and ensure that they were aware of one another’s roles in youth’s lives.

Several grantees focused their systems-thinking approach primarily on a single formal system, topic, or organization, such as a department of health, school system, child welfare system, or mental healthcare. Some organizations with a narrowly defined focus population or a mission to serve a specific population focused on the systems they worked with most closely. For example, a grantee serving youth in foster care focused on local agencies providing foster care and associated services.

Some grantees focused their approaches to systems thinking on engaging and educating staff, partners, and other community members involved in youth’s lives in the concept and language of systems thinking, trauma-informed care, and other topics. The aim was to increase community and partner awareness of systems thinking, including an understanding of the root causes of unintended teen pregnancies and STI transmissions and the concept that communities could decrease the risk of both by a variety of different services and supports—not just those that seemed directly related to youth sexual activity. Most grantees that spoke about training and outreach as a key component of their approach to systems thinking noted that it was a way to make the project more sustainable after grant funding ended,

by embedding the information and approach within an organization or community. For some grantees, this education and outreach was a part of their systems-thinking approach, together with specific changes to services, service approaches, or policies. Others described it as the whole of their approach to systems thinking, implemented alongside EBPs and other available services.

Some grantees that relied on partners to deliver EBPs and other components of the TPP20 Tier 1 project locally said they also provided those implementation partners with training and resources on systems thinking and relied on them to form their own local approaches.

Some grantees focused on the important roles of parents, caregivers, and other trusted adults in the lives, opportunities, and development of teen participants. This emphasis incorporated, explicitly or implicitly, a social-ecological model¹¹ of systems thinking based on the different sectors and levels of influence on individuals to support teens and influence their behavior. These grantees chose EBPs or supplemented their programming with components that directly or indirectly cultivated the roles of trusted adults or incorporated parent and caregiver education, training, workshops, or resources.

5.2 Varied Understanding of Systems Thinking

At the time of writing their applications for the TPP20 Tier 1 grant program, most grantees were unfamiliar with the concept of systems thinking or did not have a clear idea of how to apply it in practice. However, some grantees had staff members or partners with experience implementing systems-thinking approaches in the past or had clear examples of these approaches in their communities. A few others were already implementing approaches based on systems thinking at an organization or community coalition level. To facilitate understanding of this concept, OPA offered a Systems Thinking 101 training during the open application period. A few also brought in private consultants to provide training to staff and help them produce a systems map for their communities and projects.

Despite receiving training on how to be a systems thinker, many grantees felt uncertain or underprepared to adopt the concept in a meaningful way. Shortly after the TPP20 Tier 1 grants were awarded, OPA provided training and webinars to help grantees build a shared understanding of systems thinking and how to use it as a framework for their projects. Many grantees reported that the training provided was helpful, taking them through “step-by-step” how to map needs, systems, and root causes in their communities. However, some grantees found systems thinking conceptually challenging and said they did not feel that they fully grasped what was needed. For others, engaging and explaining systems thinking to partners or key local organizations was difficult or impossible given community and partner priorities. For some, a lack of understanding of systems thinking at the application



“IT’S KIND OF LIKE, I GUESS, DRAWING A MAP. LOOKING AT YOUR PROGRAM AND KIND OF WHAT YOU WANT TO DO AND LOOKING AT RESOURCES AND WHO CAN HELP YOU GET TO THAT POINT THAT YOU WANT TO BE AT OR WHAT YOU WANT TO DO WITH YOUR PROGRAM. SO I THINK IT HELPED. IT WAS KIND OF A DIFFICULT TO KIND OF UNDERSTAND AT FIRST.”

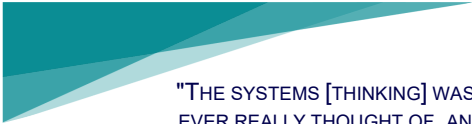
Grantee

¹¹ A *social-ecological* model acknowledges that individuals influence and are influenced by their surrounding environment. As such, prevention efforts should aim to address four environmental levels: (1) the individual, (2) relationships (family, friends, social networks), (3) community, and (4) societal (laws and regulations, societal norms). For more information, see Centers for Disease Control and Prevention (2022).

and project start-up stages made it difficult to pivot to a more robust systems-thinking approach following training. They had already planned their use of resources and approaches and lacked the time or resources to “catch up” and fully incorporate it. Furthermore, grantees without a systems thinking framework or infrastructure already in place said that to implement a systems-thinking approach fully would take far longer than the two or three years of the grant. It would also require additional resources to focus on it and partners that saw it as a priority.

Some grantees felt that they had a good understanding of systems thinking and were even implementing a system thinking approach but were confused or frustrated by the need to formalize it. Some grantees reported they already used approaches that reminded them of a systems-thinking approach and questioned whether the time to formalize, articulate, or expand this approach was practical. For example, one grantee noted that systems thinking described what they were already doing, and that putting it down in words formally “got a little burdensome in the middle of trying to just get started on the programming.” By the second year of their project some grantees had a nuanced understanding of systems thinking and had worked to implement a systems-thinking approach as central to their overall implementation of the grant. Many others remained uncertain.

Some grantees were not able to fully describe an approach to systems thinking as part of their TPP20 Tier 1 grants, or their approaches were still evolving. This might have stemmed from continued misunderstanding about the concept of systems thinking within the TPP20 Tier 1 grants. Into the second or third year of their project, some grantees remained unsure of what it truly meant to build or use a systems-thinking approach. Others referred to the concept that multiple systems affect youth’s lives and outcomes but were less clear about how this related to their projects or communities directly.



"THE SYSTEMS [THINKING] WAS NOT ANYTHING I HAD EVER REALLY THOUGHT OF, AND DOING IT WAS VERY DIFFERENT. BUT LIKE THE SYSTEMS WORK THAT WE HAD TO DO, LIKE, IN THE BEGINNING, THAT WAS VERY DIFFERENT, BUT... I THINK IT'S MADE US THINK OUTSIDE THE BOX A LITTLE BIT MORE THAN WHAT WE'RE USED TO."

Grantee

Regardless of their level of experience with systems-thinking approaches, most grantees expressed a positive view of systems thinking overall. Some said that it had expanded their understanding of the root causes, people, and agencies with a role in youth health outcomes or that it allowed them to make new connections in their communities with the possibility of sustainable changes in attitudes, approaches, and relationships beyond the grant. A few grantees mentioned that after learning about systems thinking and ways to apply it in a TPP20 Tier 1 project, they incorporated models, aspects, and strategies of systems thinking into their organization’s work as a whole.

Although most grantees ultimately valued the idea of systems thinking as part of a TPP project, many saw it as a burden or as unrealistic for the project’s duration and scope. Some said that it was difficult to implement a systems-thinking approach because staff and partners were too busy with the day-to-day work of delivering EBPs or connecting participants to services. Some agencies, particularly health departments and schools, were in “survival mode” during the first year or two of the COVID-19 pandemic.

Grantees that expressed negative views of systems thinking generally reported that incorporating systems thinking took needed resources or time away from the core program implementation, or that they did not have sufficient capacity or time to implement a complete or

effective systems-thinking approach. Grantees also noted that the COVID-19 pandemic made it harder to grow and implement a systems-thinking approach while meeting the challenges it presented to service delivery. Convening community advisory groups and partners within key systems was also more difficult, because of both demands on people's time and the lack of opportunity to meet in person.

5.3 *How Projects Identified and Began to Address Needs through the Roles of Systems*

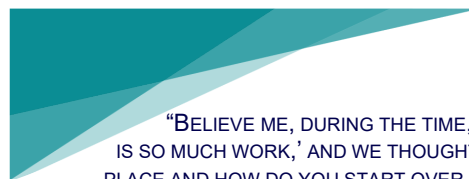
As part of their systems-thinking approaches, some grantees identified and began to address needs and leverage points in concert with EBPs, including through which EBPs they chose and where they chose to implement them. For example, some grantees elected to provide positive youth development-based and trauma-informed EBPs to high schoolers in school districts with high incidences of poverty, unemployment, and adverse childhood experiences.

Other grantees identified families, peers, or trusted adults as essential systems and spheres of influence on which to base leverage points. Some grantees chose EBPs, supports, and services that focused on these leverage points. This included using EBPs with parent or trusted adult components, providing parent or caregiver workshops or training to support youth needs, providing peer ambassador¹² or peer mentor programs, and running activities such as youth and parent summits.

5.4 *Factors that Facilitated Systems Thinking in TPP Projects*

Unsurprisingly, grantees and communities where systems thinking was already a focus point for serving youth found they had a head start in grasping the concept of systems thinking, identifying needs and systems, and implementing structures and approaches using systems thinking as a framework. Being the recipient of a 2015 TPP Tier 1B grant helped position some grantees to implement a systems-thinking approach under the TPP20 grant. Though the 2015 TPP Tier 1B grant did not include systems thinking as an explicit component of the program, it did require that grantees review existing local resources, implement EBPs in at least three distinct settings to reach youth in multiple contexts, establish a linkage and referral system for youth-friendly supportive services, and establish one or more multi-sector community advisory groups and youth leadership groups.

These existing structures put many grantees ahead in conceptualizing local systems and key parties and identifying them in their communities—many grantees had already done this to form and support their existing advisory groups or coalitions. Some of those with existing structures were also able to engage partners, community members, and youth at the application and project design stage—gathering their input on key factors affecting youth and input on EBP



"BELIEVE ME, DURING THE TIME, WE WERE, LIKE, 'THIS IS SO MUCH WORK,' AND WE THOUGHT WE HAD THIS PLAN IN PLACE AND HOW DO YOU START OVER IF—WHEN SOMETHING COMES OUT THAT YOU WEREN'T EXPECTING. BUT... I DID APPRECIATE THE FACT THAT, I GUESS, OPA HAS ALSO, KIND OF, HAD US LOOK AND HAD PEOPLE LOOK AT TEEN PREGNANCY PREVENTION, NOT JUST AS, 'I HAVE TO PROVIDE SEXUAL HEALTH EDUCATION,' BECAUSE THAT MAY NOT BE THE BEST THING FOR THE COMMUNITY, AND IT MAY NOT BE THE BEST FIT FOR WHERE PEOPLE ARE AT."

Grantee

¹² Peer ambassadors could take on several roles, but often they became a spokesperson for the program, promoting the project to their peers in schools or the community and telling their peers about resources available.

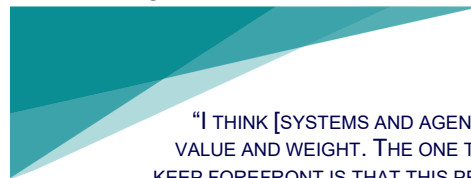
choices and settings. Pre-existing relationships with service and setting provider partners also helped grantees secure the support and participation of these partners without avoidable delay or unexpected hurdles.

Grantees that had pre-existing systems-level approaches and programs were able to develop comprehensive systems-thinking approaches for their TPP projects. While relatively uncommon, a few grantees used comprehensive systems-thinking approaches, including an assessment of community needs and resources, social determinants of health, and establishing a backbone organization or coalition to drive the effort with community input. Furthermore, grantees with a history of providing wrap-around services to program participants and close partnerships with a range of agencies and community members had a clear concept of how one set of needs could affect another. Across all grantees, those with a fully developed, comprehensive systems-thinking approach for their TPP projects had been using it as a long-standing approach within their organization. Forming the community relationships, partnerships, and wider engagement and understanding needed for this kind of collective action approach generally had taken several years to develop and had started well before the TPP20 Tier 1 grant award.

A few grantees were able to jump-start a systems-thinking approach for their TPP projects by embedding it into a larger ongoing initiative within their community or organization. For example, one city-based grantee housed its TPP program within a municipal youth sexual health plan, which was itself embedded in a wider maternal and child health initiative.

Several of the grantees new to systems thinking said that trainings and webinars that OPA provided early in the grant helped them understand what systems thinking entailed, its value for their efforts, and ways to explain it to partners. Some found it helpful to complete exercises identifying the role of different systems and factors in their communities.

Some grantees had specific staff members or consultants focused on systems thinking and related partnership and services development. These grantees tended to have a clearer picture of systems thinking in their communities and relatively strong ability to affect newly identified leverage points.

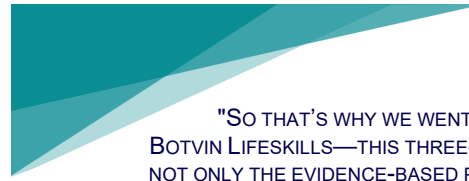


“I THINK [SYSTEMS AND AGENCIES] ALL HAVE EQUAL VALUE AND WEIGHT. THE ONE THING THAT WE TRY TO KEEP FOREFRONT IS THAT THIS PROJECT IS A PART OF A WHOLE INITIATIVE, AND THAT INITIATIVE IS A PART OF A WHOLE SYSTEM. THE INITIATIVE THAT I’M SPEAKING OF IS OUR YOUTH SEXUAL HEALTH STRATEGY, WHICH WE HAVE PUT TOGETHER AND HAVE DEVELOPED THROUGH THE YEARS. BUT THAT STRATEGY IN AND OF ITSELF IS A PART OF OUR MATERNAL AND CHILD HEALTH INITIATIVE...WHICH IS FOCUSED ON MAKING SURE THAT WE HAVE HEALTHY BABIES WITHIN [THE CITY]. AND WE FEEL THAT THE YOUTH PIECE IS CRITICAL BECAUSE WE HAVE A HIGH TEEN BIRTH RATE.”

Grantee

Notes. Though no EBPs built specifically on systems-thinking elements, some grantees chose EBPs that included peer learning elements or parent and caregiver elements that aimed to support youth and influence behavior by addressing key elements or parties identified through social-ecological models of systems thinking.¹³

Grantees and setting partners leveraged their organizational strengths and resources to deliver EBPs to more youth or to a wider range of participants. For example, one grantee that was a regional provider for youth recreational and fitness programs was able to draw on its existing youth-focused programs such as summer camps to expand its reach. It created a special summer camp program centered around the EBP, consulted youth program participants on naming the summer program and activities, and incentivized participation by giving youth who completed the curriculum a free annual membership to the organization's recreational facilities.



"SO THAT'S WHY WE WENT THE ROUTE TOWARDS BOTVIN LIFESKILLS—THIS THREE-TIERED APPROACH OF NOT ONLY THE EVIDENCE-BASED PROGRAM, BUT HAVING TWO SUPPLEMENTAL PROGRAMS: ONE THAT FOCUSES ON, KIND OF, PEER SUPPORT, AND THEN THE OTHER ONE THAT FOCUSES ON GETTING CLINICS TRAINED TO BE ADOLESCENT FRIENDLY—SO WE COULD ATTACK [TEEN PREGNANCY AND YOUTH WELL-BEING NEEDS] FROM DIFFERENT ANGLES IN A WAY THAT WE ARE ABLE TO WHEN WE HAVE SOME CERTAIN RESTRICTIONS ON WHAT WE CAN AND CAN'T DO."

Grantee

6.1 EBPs Delivered by the Projects

To reach their communities, the TPP20 Tier 1 grantees implemented a total of 40 different EBPs. Exhibit 6-1 below shows the 10 most implemented EBPs across all TPP20 Tier 1 projects. The most grantees implemented *Love Notes* (29% of grantees), *Positive Prevention PLUS* (24% of grantees), and *Making Proud Choices!* (21% of grantees).

These three most implemented EBPs varied substantially, likely because the combinations of communities, populations, settings, and needs in which EBPs were implemented were unique. *Love Notes* focuses on healthy relationships, communication, and healthy behavior and is not a comprehensive sexual health education program. It is geared toward middle and high school-aged youth. In contrast, *Positive Prevention PLUS* is a comprehensive sexual health education program designed for high school students. *Making Proud Choices!* is a comprehensive sexual health education program for middle and high school-aged students with several editions, including an out-of-home edition and an edition incorporating additional requirements for California schools to align with state law.

¹³ These social-ecological models focused on different environments, sectors, and levels of influence on youth experience, including systems of peers, family, school, or neighborhoods.

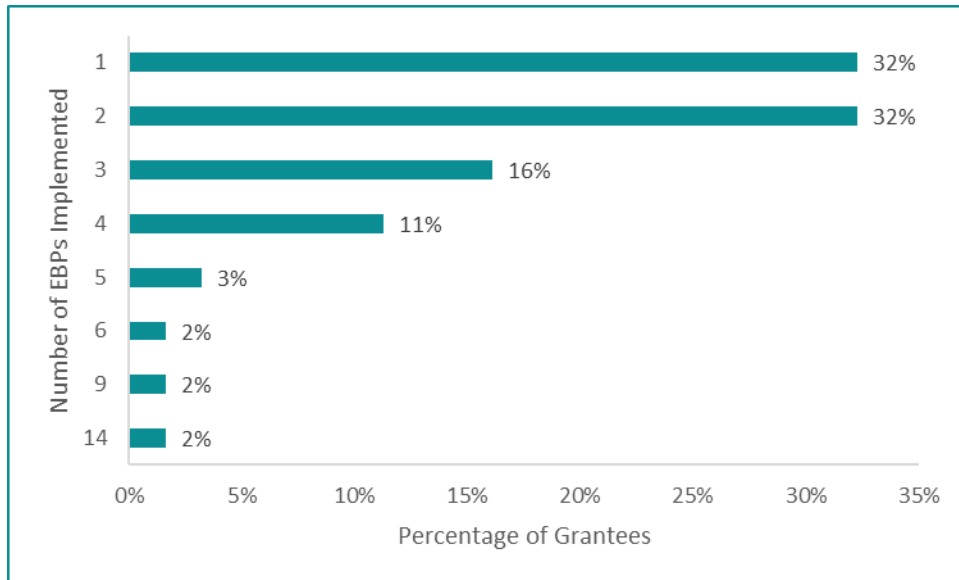
Exhibit 6-1. The Ten Most Commonly Implemented EBPs

EBP	EBP Description	# of Grantees Offering EBP	% of Grantees Offering EBP
<i>Love Notes</i>	A healthy relationships curriculum for youth ages 14–24 that includes 13 one-hour lessons on topics such as healthy relationships, preventing dating violence, decision-making, and communication. Appropriate for multiple settings.	18	29%
<i>Positive Prevention PLUS</i>	A comprehensive curriculum with three levels for youth in middle school (grades 7–8), high school (grades 9–12), and special education. The 13-lesson curriculum covers topics such as contraceptive use, resistance and negotiation skills, and accessing reproductive health services. Appropriate for in-school and community-based settings.	15	24%
<i>Making Proud Choices!</i>	A comprehensive curriculum for youth ages 11–16 that includes 8 modules covering abstinence and safe sex practices. Appropriate for in-school and community-based settings.	13	21%
<i>Plan A</i>	A 23-minute video and optional handout on birth control methods and sexually transmitted infection (STI) testing and treatment for Black and Latina women ages 18–19. Appropriate for clinics and community-based, university, and high school settings.	10	16%
<i>Draw the Line / Respect the Line</i>	An abstinence-based curriculum with tailored content for students in grades 6, 7, or 8 that includes information on STIs and refusal skills. Appropriate for classroom-based, in-school settings.	9	15%
<i>Teen Outreach Program (TOP)</i>	A youth development and service-learning program for youth in middle and high school. Curriculum topics cover sexual and adolescent health and development including social, emotional, and life skills; connecting with others; and developing a positive sense of self. Appropriate for multiple settings.	8	13%
<i>Making A Difference!</i>	An 8-module abstinence-based curriculum for youth ages 11–13 that includes information on STIs. Appropriate for classroom-based, in-school and community-based settings.	7	11%
<i>Power Through Choices</i>	A comprehensive curriculum for youth ages 13–18 in out-of-home care settings (foster care, juvenile justice facilities) that includes 10 sessions on topics such as self-empowerment and sexual risk behaviors. Appropriate for out-of-home care settings.	7	11%
<i>Reducing the Risk</i>	A 16-module comprehensive curriculum for youth ages 14–17 that covers risk assessment, communication, refusal strategies, and decision-making. Appropriate for classroom-based, in-school and community-based settings.	7	11%
<i>Families Talking Together</i>	A parent-based curriculum designed for parents of Latina/o/x and Black/African American youth ages 10–14. Aims to build communication skills and parent-adolescent relationships. Appropriate for multiple settings.	6	10%

Source: Pre-interview forms completed by grantees, information provided in interviews, and the TPP Evidence Review (<https://youth.gov/evidence-innovation/tpper/programs>).

As shown in Exhibit 6-2, 80 percent of grantees implemented three or fewer EBPs. Almost one-third (32% of grantees) used a single EBP, and the same percentage (32%) used two EBPs. Grantees that implemented five or more EBPs (8%) were those that allowed individual local, regional, or setting partners to select which EBPs best suited their needs and constraints.

Exhibit 6-2. Number of EBPs Implemented by Each Tier 1 Project



Source: Pre-interview forms completed by grantees and information provided in interviews.

6.2 How and Why Grantees Selected EBPs

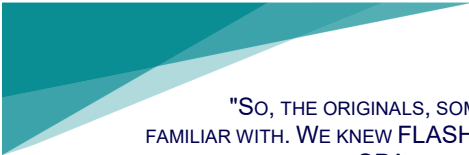
For prior TPP grants, OPA provided a list of EBPs (“TPP Evidence Review”) from which grantees could choose based on fit for their communities. At the time grantees applied for and launched their TPP20 Tier 1 grants, the TPP Evidence Review had not been recently updated. OPA did not require grantees to select interventions from the TPP Evidence Review, just that any interventions selected met certain criteria for study quality and evidence of effectiveness (Office of Population Affairs, 2020). Nonetheless, most grantees consulted the existing TPP Evidence Review to identify which EBPs would best fit the populations and communities they aimed to serve, and which they or their partners had the capacity to deliver to participants. A minority of grantees conducted an additional search of existing research with the aim of finding EBPs best suited for special populations, to find EBPs with specific features (such as including or excluding particular content or shorter program length), or simply to refresh their understanding of what EBPs were available.

Ultimately, most grantees selected EBPs with which they, their partners, or communities were already familiar. Implementing familiar EBPs brought numerous benefits. For some, having staff who were already trained in the EBPs meant grantees could start implementation without delay. Community, partner, and setting familiarity with EBPs also meant grantees knew that the EBP worked well for their communities and focus populations and that approval to implement it could be streamlined because implementation partners and community or school-level decision-makers already knew what to expect. For some grantees, the experience of

building support for an EBP in similar communities and settings made the process of building support in new settings, sites, or communities more predictable.

Community familiarity with EBPs increased the chance that sites, settings, and communities would accept an EBP or be willing to host it.

Despite these benefits, the switch to online and hybrid implementation, along with concerns about academic time for youth, learning loss, and teacher strain due to the COVID-19 pandemic, often strained implementation logistics, even for known EBPs with experienced setting partners and communities.



"SO, THE ORIGINALS, SOME OF THEM WE WERE FAMILIAR WITH. WE KNEW FLASH ALREADY. WELL, WE ALSO LOOKED AT THE OPA LIST, AND THEN WE LOOKED AT OTHER ONES THAT WERE EVIDENCE-BASED, AS WELL, AND WE THOUGHT THAT MIGHT BE A GOOD FIT FOR THE DIFFERENT POPULATIONS WE WERE TRYING TO SERVE. AND THEN THAT'S WHY IT SHIFTED, BECAUSE SOME JUST DIDN'T MEET THE NEEDS, AND WE BROUGHT IN OTHERS."

Grantee

Some grantees selected EBPs they did not have experience with or allowed implementation partners or the community to decide on programming. Among these grantees, some employed third-party consultants to identify options within and beyond the existing evidence review. Others compiled a list of several EBPs and let implementation partners or communities decide which to use.

6.3 Participant, Partner, and Community Reception of EBPs

Many grantees reported that their communities were supportive of the EBPs they chose to implement. This support was facilitated, at least in part, by the efforts projects made in selecting EBPs, settings, and service areas to ensure a good fit. The EBPs chosen were ultimately ones the setting providers and communities would be comfortable hosting.

Some grantees were only able to operate in settings and service areas that they knew to be supportive of the EBPs. Because these grantees were unable to implement programming in particular school districts or areas due to lack of support, they instead approached other school districts and areas that fit their focus population criteria. Some had to expand their focus populations to ensure they could reach a sufficient number of youth in their service areas. Others were approached by new school districts and school partners based on positive word-of-mouth from other, nearby schools or districts.

To gain buy-in and support for the project and the EBPs, some grantees brought partners and community members to the table to participate in project planning and implementation. The aim of convening these parties was to encourage collaboration and communication, facilitating smooth implementation, without missed sessions or unexpected changes in schedules. Setting partners were also responsible for the bulk of participant recruitment as well as coordination for space and time to deliver EBPs, so their support and communication was essential to delivering EBPs. To build support and familiarize communities with the EBPs, projects presented information initially and then again in public settings such as open school board meetings and health fairs. Some visited individual schools and other potential setting partners to present information about the EBPs, emphasize the need for the EBPs and the benefits of having them, and discuss the process for hosting or delivering EBPs.

Most grantees used advisory groups or coalitions to provide input on EBP implementation, recruit additional support or sites, and collect feedback on project implementation. Most

community advisory groups included representatives from setting or site partners such as schools or clinics, as well as a broader range of service providers and interested community members. Grantees also cultivated and engaged local champions for the programs who were already involved with local sites and settings, to communicate about the EBP and persuade site providers to participate. These could include school nurses or clinic staff, parent-teacher association members, school board staff, or even highly engaged community members such as parents or service providers who were external to settings. A few grantees provided EBP training to adult and youth advisory group members, parents, or setting staff, both to prepare them to answer questions about EBPs raised by parents or other community members and to expand knowledge of EBP content in the community.



"SCHOOL HEALTH COORDINATORS HAVE BEEN REALLY INSTRUMENTAL IN GETTING US INTO THE DIFFERENT SCHOOL DISTRICTS AND COUNTIES. THEY ARE THE ONES THAT ARE, KIND OF, OUR GATEWAY INTO THESE DIFFERENT PLACES. AND THEY USUALLY END UP BEING THE CHAMPIONS OF OUR PROGRAM, AND REALLY SUPPORTIVE. THEY'RE TYPICALLY THE ONES THAT SIGN THE [MEMORANDUMS OF UNDERSTANDING] OR AT LEAST INFLUENCE THE SIGNING OF THE MOUS.... AND THEN THE TEACHERS, AS WELL."

Grantee

Grantees built school and community support for EBPs by highlighting how EBP delivery could reduce teacher workloads and by combining additional services and topics with the EBPs. Some grantees cultivated support from schools at least in part by integrating the EBP into health classes and directly delivering EBPs (in lieu of the health teacher), taking instructional burden for these topics away from teachers. One grantee that had selected an EBP focused on communication and healthy relationships noted that its local schools welcomed the program as a way to increase student social-emotional well-being and communication skills considering the isolation and trauma that came with the COVID-19 pandemic. Schools also appreciated having skilled and trained facilitators to deliver programming on topics many teachers felt uncomfortable or ill-prepared to facilitate.

Along with the EBPs, some grantees provided other services they knew were needed in the community. For example, the grantee that offered paid work experience saw this as an essential component of its project model and a way to support overarching community needs and root causes for poor health outcomes. Doing so also served as an incentive for youth and communities to participate in the EBP.

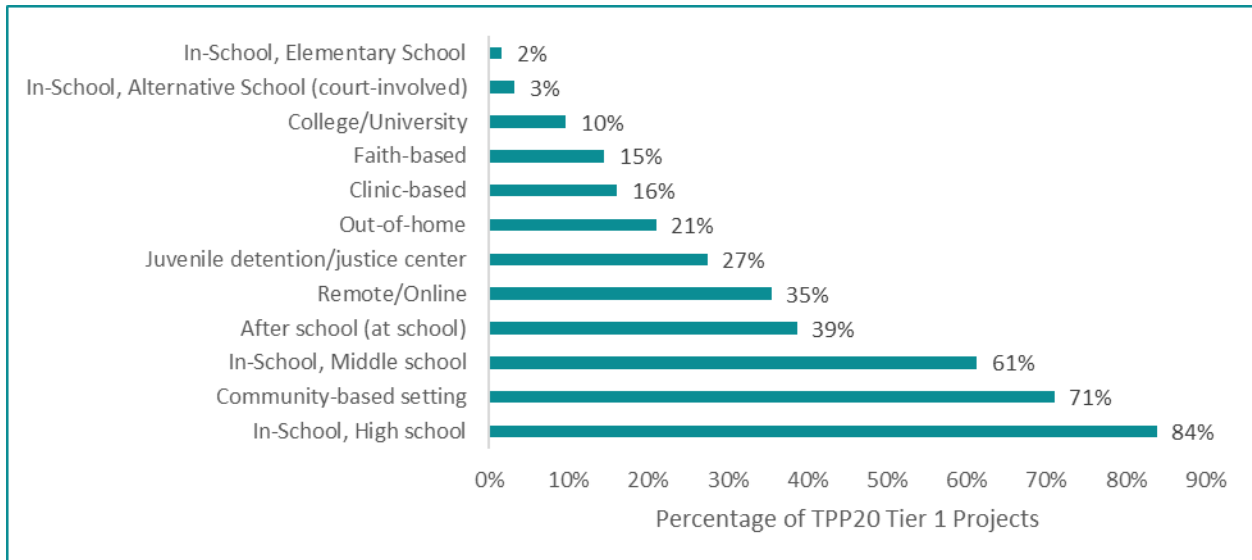
Positive youth responses to EBPs encouraged uptake of service by other youth. Word-of-mouth from youth participants was an important recruiting tool in community-based settings. Many grantees reported that youth were highly engaged in the material—especially following the end of COVID-19 restrictions and the return of in-person delivery—and that they consistently gave positive feedback on evaluation forms. A few noted that youth who had participated in the EBPs seemed more confident and knowledgeable as the programs progressed. For example, one grantee said EBPs improved school attendance, as some students with spotty histories were more likely to come and stay at school during days when EBPs were delivered. Some grantees attributed their engagement to skillful and dedicated facilitators.

6.4 Settings Where Projects Implemented EBPs

Choices about which EBPs to implement and in which settings to implement them were inextricably linked and were both, in turn, guided by the populations the project aimed to serve. Other considerations included project design factors and systems-thinking approaches that influenced projects to serve youth in multiple age groups, life stages, or contexts (e.g., middle and high school, community-based settings); a need to reach as many youth as possible; and practical concerns such as receiving permission and support to implement in a given site or setting. For several grantees, state and local laws played a key role in their setting choices, when these laws specified the type of sexual health education and reproductive health content either prohibited or mandated and where such education must or must not occur.

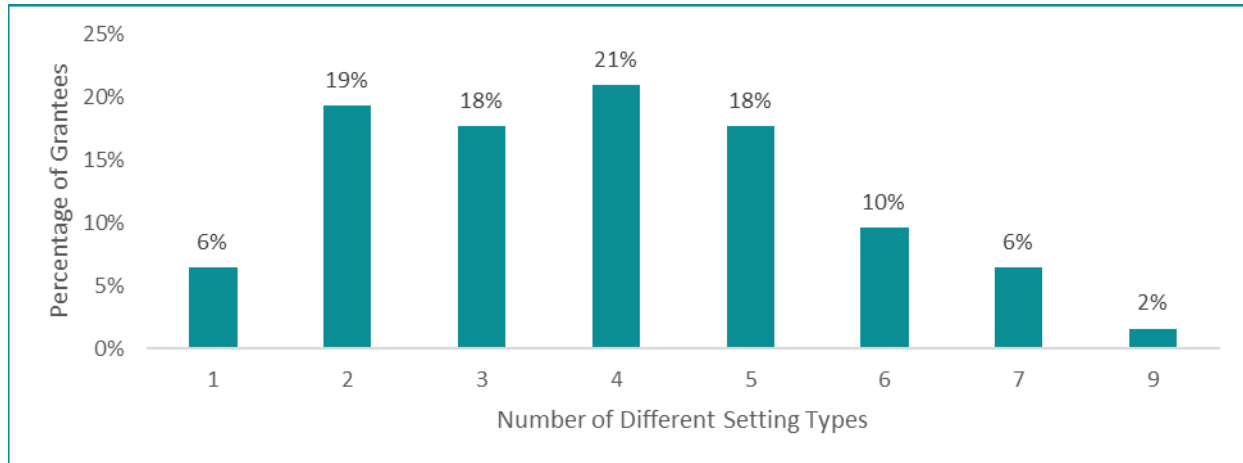
School-based settings were the most common choice overall for delivering EBPs. Most grantees (84%) used high school settings to provide programming during in-school time, and many (61%) used middle school settings. Since the inception of the TPP20 Tier 1 grant programs in 2010, schools have been a common setting, because they generally allow projects to deliver EBPs to the most youth. Community-based settings were also very common (71%). Projects implemented in juvenile justice settings (27%) and out-of-home settings for youth in foster care or other group settings (21%) were less common. Exhibit 6-3 shows the percentage of grantees that implemented at least one EBP in each setting type.

Exhibit 6-3. Types of Settings Where TPP Projects Implemented EBPs



Source: Pre-interview forms completed by grantees and information provided in interviews.

Almost all grantees (94%) delivered EBPs in multiple setting types (Exhibit 6-4), the majority (57%) in four or more.

Exhibit 6-4. Number of Different Settings Where TPP Projects Implemented EBPs

Source: Pre-interview forms completed by grantees and information provided in interviews.

Some settings allowed projects to expand their reach to more youth and additional populations or to deliver additional content. Some grantees used out-of-school-time settings, such as summer camps and recreational or after-school programs, to reach youth. Providing EBPs in these settings allowed grantees to expand their reach to a wider variety of populations and age groups, and often to deliver EBP content with fewer restrictions. Schools and state laws generally did not impose the same restrictions on what content could be delivered on campus after school hours as during school hours. Some grantees also found that charter and private schools allowed them to deliver EBPs where traditional public schools would not. Charter and private schools also had the benefit of dedicated in-school time for EBP delivery without some of the regulatory or legal restrictions of traditional public schools.

"IN SYSTEMS OF CARE, WE CAN DO THE CONDOM DEMONSTRATIONS. WE HAVE A LOT MORE FREEDOM. THERE ARE NO LAW RESTRICTIONS OUTSIDE OF THE SCHOOL SETTINGS. SO YEAH. SO, WE CAN PRETTY MUCH ANSWER ANYTHING AND BE VERY COMPREHENSIVE IN WHAT WE'RE TEACHING AND DO A LOT OF RISK-REDUCTION TYPE OF DISCUSSION AND BE VERY REALISTIC ABOUT THEIR EXPERIENCES."

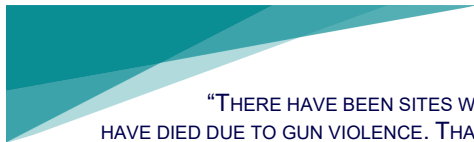
Grantee

Frequent communication with setting staff supported implementation. Grantees and implementation partners were able to implement EBPs most smoothly when they had setting partner buy-in or even enthusiasm, and when they had a dedicated point of contact who had volunteered for the role. Setting staff were most often involved not only in scheduling and ensuring space for EBP delivery, but also in recruiting participants and obtaining consent. Some projects needed setting staff support to identify as well as recruit participants—including a project serving students with behavioral problems, truancy, or risk of juvenile justice involvement. Grantees noted that without a dedicated point of contact, facilitators might arrive at a school or community-based setting and find that another activity had usurped their time or room. A regular process for communication and a single direct contact—especially one who had volunteered for the role—could help ensure smooth delivery of the EBPs and troubleshoot any logistical problems that arose. A few grantees also valued the feedback setting staff provided about the EBPs and youth's reactions to them, and they used this feedback as part of continuous program improvement.

6.5 Challenges in Delivering EBPs

Grantees faced a range of logistical, geographic, legal, and cultural challenges that delayed or otherwise complicated EBP implementation. Grantees engaged youth in a variety of focus populations, settings, and contexts. Regardless of setting or context, grantees had to navigate competing priorities. These included academic setbacks from the COVID-19 pandemic and complex challenges such as the opioid epidemic, gun violence, racial violence, and the resulting mental health impacts and trauma on youth. Youth in these communities faced infrastructure-related barriers such as limited internet access for virtual learning, limited or unsafe transportation options, and a scarcity of youth-friendly services (e.g., clinics had limited hours or locations).

Some grantees delivering EBPs in schools had to first navigate administrative requirements such as state-mandated committees (e.g., School Health Advisory Councils in Texas), state or local legal requirements on content or data collection, or school board or superintendent approvals that were either required to proceed or otherwise essential. Getting principals, school boards, and teachers to approve implementation and coordination to make implementation possible were challenges for many grantees and their partners. In communities with large immigrant populations, they needed to make information and materials accessible to people with primary languages other than English.



“THERE HAVE BEEN SITES WHERE YOUNG PEOPLE HAVE DIED DUE TO GUN VIOLENCE. THAT PROGRAMMING HAS TO BE SHIFTED—AND BECAUSE LEAVING THE SCHOOL AFTER SCHOOL IS NOT SAFE, THEY DON’T FEEL THAT THEY CAN SAFELY MOVE FROM SCHOOL TO HOME WITHOUT VIOLENCE. SO SOMETIMES I THINK IT’S HARD TO IMPLEMENT SOMETHING WHEN, LIKE, JUST STAYING ALIVE IS THE FOCUS.”

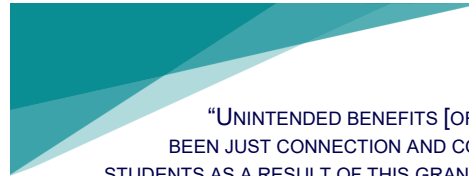
Grantee

Several grantees also noted an uptick in concerns from parents and caregivers about their projects and the content of the EBPs. They often attributed it to the political climate, as a reaction to messaging from politicians or recent legislation that restricted discussion or education on certain topics such as sexual orientation or gender identity. The heightened concern was generally more common in states and communities that historically have been wary of including reproductive, gender, or sexuality topics in a classroom setting. This notably contrasted with states with laws encouraging or requiring sexual health education, such as California, Illinois, and New York, where grantees reported that local requirements and priorities facilitated successful implementation.

Some parents and communities expressed concern about EBPs focused on comprehensive sexual health education. Some grantees faced pushback from parents and communities regarding the actual or perceived content of the EBPs. For example, some grantees purposely chose EBPs focused on relationships and consent rather than on comprehensive sexual health education. Nevertheless, these grantees had trouble obtaining permission from some parents for their youth to participate, or grantees faced challenges at the school board level over concerns about the content. Grantees generally attributed this pushback to the political or social climate and to misinformation about what the EBP included. Many grantees worked to inform schools, parents, and community members about EBP content, EBP effectiveness, and the need for programming in their communities. This communication occurred at school board meetings, community meetings, and health fairs, and through direct

contact with or visits to schools. However, in communities with strong resistance, such outreach efforts were most often not sufficient to change that.

Youth engagement, especially after the return to in-person instruction, was challenging for some projects. Following the return to in-person activities, several grantees noted that participants had gotten out of the habit of showing up in person, resulting in exceptionally low enrollments in EBPs delivered in some community-based and after-school settings. Others noted that youth had “forgotten” how to have discussions in-person and were difficult to engage. Projects addressed these needs through active engagement with youth and their families including offering youth or parent groups, pairing EBPs with additional services or programs, and focusing on EBPs with a strong social-emotional or communication component.



“UNINTENDED BENEFITS [OF THE PANDEMIC] HAVE BEEN JUST CONNECTION AND COMMUNITY WITHIN OUR STUDENTS AS A RESULT OF THIS GRANT. THEY’VE BEEN ABLE TO COME TOGETHER AS STUDENT GROUPS AND REALLY HAVE A VOICE. AND I THINK IT’S SO IMPORTANT THAT WE’RE GIVING STUDENTS A VOICE RIGHT NOW BECAUSE...THE SOCIAL ISOLATION REALLY IMPACTED THOSE CONNECTIONS AND THEIR MENTAL WELLNESS. AND SO I THINK ANY OPPORTUNITY FOR THEM TO COLLABORATE AROUND THESE THINGS IS TIME WELL SPENT.”

Grantee

The COVID-19 pandemic and its aftermath posed novel challenges for delivering EBPs, but ongoing challenges remained and varied substantially. Projects faced language barriers, demographic change, and language or content that grantees and partners felt were out of date, non-inclusive, or otherwise incomplete. (Many grantees were able to address these types of challenges through adaptations, as discussed below.) Some projects had difficulty engaging settings, scheduling EBP delivery, or keeping in communication with setting partners to remain aware of changes in scheduling or location.

Other challenges included partners or facilitators who found material difficult to deliver, especially when settings restricted what content could be included and facilitators had to carefully navigate questions from youth participants. (Grantees generally addressed these needs through training and technical assistance, including a focus on trauma-informed care and positive youth development.) Several grantees noted that curricula and training were difficult or expensive to obtain. For some, that led them to drop one EBP in favor of another. For others, it led to a substantial delay in implementing an EBP because training from the EBP developer was not initially available.

A few grantees mentioned that, even when school districts had approved EBP delivery and the superintendent had signed an agreement with the grantee, it was necessary to gain affirmative support within individual schools. This need made it impossible to deliver in some planned sites; elsewhere grantees were able to engage principals and teachers through direct communication, proactive presentations, or cultivating a champion within the school or district.


6.6 Adaptations to EBPs

Most projects adapted EBPs to: (1) make materials more inclusive, appropriate, or accessible for their communities; (2) to make the EBPs easier to implement or deliver; or (3) to increase approval and acceptance of EBPs within the community or setting. In response to pandemic-related restrictions on in-person learning, the vast majority of grantees adapted EBPs originally designed to be delivered in-person to make remote delivery possible.

Grantees made adaptations to EBP modality as instruction shifted from in-person to remote/virtual learning because of the safety precautions put in place in response to the COVID-19 pandemic. Many grantees found themselves needing to adjust EBPs quickly, and with minimal or no testing, to deliver them in virtual or hybrid formats. Most EBPs were not developed in virtual versions, so the change in modality from in-person to virtual learning was itself an adaptation. A few grantees said that EBP developers supported them in adapting the curriculum for online delivery, and a few collaborated with local partners or consultants. Some grantees that moved entirely to virtual delivery were later able to transition to hybrid formats, before ultimately moving back to the originally planned in-person formats as restrictions lifted. Some noted that EBPs fluctuated from virtual to in-person or hybrid delivery as presence of the COVID-19 virus in the community changed over time. A few grantees were not able to return to in-person versions at all for the first two years of the pandemic, at least in some key settings. However, for some projects, moving to remote delivery allowed them to better reach populations they would not have been able to reach with in-person delivery. This included youth in some community-based settings who could not easily travel and parents who did not necessarily have time to travel.


To deliver EBPs remotely, grantees had to adjust activities—for example, using virtual representations for activities where participants were meant to physically move into groups. One grantee noted it had to adjust a service-learning component that was part of an EBP to make it individual rather than collective. Some grantees incorporated new technologies to adapt EBPs for a virtual or hybrid setting. For example, one grantee incorporated the web application Nearpod into its virtual implementation of *Making Proud Choices!* to allow for functionality such as administering tests and quizzes. Another grantee incorporated the Kahoot! app and its learning games and quizzes into virtual classrooms to help engage participants.

Projects modified EBP curricula to make them more inclusive, relatable, or current. Some grantees found that though a curriculum was generally a good fit for their communities, settings, and populations, some of its language or examples were not inclusive, did not represent the community well, or were out of date. As such, grantees adopted a positive youth development framework to adjust the content to ensure that it supported youth agency and did not stigmatize certain behaviors or groups of people. Grantees adjusted language and examples to make them more culturally appropriate and inclusive, such as changing pronouns used, names, or settings and situations in role-plays and examples. Grantees swapped out visuals that displayed extreme cases of an STI to more accurate depictions that someone might expect to see in a mild or moderate case. Translation was another common need. Some of the selected EBPs did not include a Spanish version, so grantees translated the curriculum themselves. One grantee noted that though its selected EBP offered a pre-packaged Spanish language version, the translation was missing some



“SO THERE WERE DIFFERENT POINTS IN TIME WHERE OUR COMMUNITY SPREAD OF COVID WOULD FLUCTUATE. AND IF IT WOULD GO HIGHER, WE WOULD HAVE TO LIMIT THE NUMBER OF IN-PERSON PROGRAMS DOWN TO ESSENTIAL-ONLY PROGRAMS, AND SEX EDUCATION WAS NOT CONSIDERED AN ESSENTIAL PROGRAM.”

Grantee



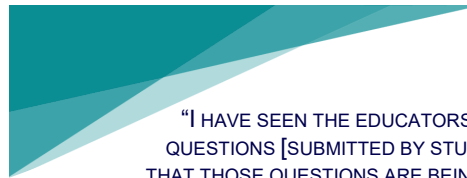
“I KNOW THE ONE THING WE DID WAS REVIEW POWER THROUGH CHOICES. THINKING ABOUT, YOU NOW, VALUES THAT WE HAVE AND BEST PRACTICES THAT WE KNOW WORK [AND THEN] REMOVING STIGMATIZING LANGUAGE. SO MUCH OF THAT CURRICULUM IS FRAMED IN TERMS OF RISK AND BAD CONSEQUENCES.”

Grantee

content present in the English language version, so the grantee had to make changes to the Spanish language version to match.

Some projects adapted curricula to add to or improve content areas to support communities and encourage setting partners to participate. Though not as common, some grantees added content to an existing curriculum to provide missing context, to fully inform participants, or to meet state requirements. One grantee noted that the curriculum it used did not include a unit on human anatomy, which it added as essential background to help participants fully understand the remainder of the content. A few projects found that adapting EBPs to incorporate other local needs and priorities helped encourage sites and settings to make time for them. For example, one project found that local schools were unwilling to take sufficient time away from their regular health class curriculum to host the EBP. They became much more receptive, however, once the grantee incorporated additional topics that were of interest to them, including human trafficking, sexting, and media safety. Some grantees also added content to meet youth and community needs, such as coping with stress or trauma resulting from the pandemic, violence, or social unrest.

Adaptations increased engagement and support for communities and participants. Some projects were able to adapt activities for a virtual setting to better engage youth. They did this by using tools on Zoom and other platforms. Furthermore, technologies such as online apps could incorporate built-in resource guides, direct connections to crisis hotlines, and opportunities for participants to ask questions directly to the EBP facilitator that the participants might not have been comfortable asking in front of their classmates or in an in-person setting. For in-person EBP delivery, a couple of projects introduced index card systems, where each participant was given an index card to write any questions they might have, topics they wanted to discuss, or individual needs for services or support. These systems could be anonymous, to allow facilitators to address questions for the whole class and incorporate topics into the sessions or identified by name to allow facilitators to answer personal questions for individual youth discreetly at another time. One grantee had peer facilitators co-facilitate sessions of its EBP to better engage participants and cultivate well-informed youth ambassadors of the program.



“I HAVE SEEN THE EDUCATORS INCORPORATE THOSE QUESTIONS [SUBMITTED BY STUDENTS] TO MAKE SURE THAT THOSE QUESTIONS ARE BEING ANSWERED AS PART OF THE LESSON THAT COMES NEXT. SO SOMETIMES THEY WILL SAY...LIKE, OUR INTRODUCTORY CLASS MIGHT HAVE, ‘WHAT DO YOU WANT TO KNOW ABOUT BUILDING A HEALTHY RELATIONSHIP?’ AND THEN THEY CAN PRESENT THAT TO THE GROUP SO THAT THEIR KIDS CAN SEE, YEAH, ‘I’M NOT ALONE. I DON’T KNOW THIS STUFF, AND NEITHER DO THEY.’”


Grantee

To gain buy-in for their programming, some grantees also removed topics or language that made the setting or community uncomfortable with the curriculum or unwilling to host it, such as replacing the condom demonstration included in a few popular EBPs with verbal descriptions or diagrams. Others provided the option for youth (or their parents) to opt out of certain lessons within the curriculum instead of opting out of receiving the entire EBP.

Grantees’ flexibility facilitated EBP scheduling, coordination with setting partners, and retention. Some projects changed EBP length or delivery to better engage participants and facilitate delivery of curriculum in different settings. Several changed the grouping of sessions in

longer curricula to condense them to a shorter number of weeks by delivering more frequent or longer sessions. Such changes were sometimes necessary to schedule across schools with health class units of differing lengths, different class period lengths, or around activities such as state academic testing days. One grantee with a focus on youth in foster care noted that, for some settings, it needed to adjust its EBP from one session per week for five weeks to one session every day for a single week to retain its transient focus population. A few grantees made other changes to delivery for practical reasons. For example, one grantee noted that an EBP was designed to separate participants by gender. This was impractical for scheduling the EBP, because it required two rooms and facilitators instead of one and it was unclear how to engage or include students who were gender non-confirming.

Many grantees expressed concern about the impact of adaptations needed to deliver EBPs remotely. Overall, grantees reported that, where possible, in-person implementation was more effective in engaging youth. A few said explicitly that their EBPs could not be delivered remotely with fidelity. Grantees shared concerns about participation in a virtual setting. Most EBPs rely not just on the ability to capture participant attention but also on participant interaction and active participation through discussions, role-plays, and other activities. Some EBP components could not be delivered adequately in a virtual setting. For example, an activity for the EBP *Positive Prevention PLUS* involved classmates combining different fluids and then testing the resulting combinations to represent STI transmission risks. The grantee noted that, though there were ways to discuss or demonstrate this virtually in a way that is not hands-on, it “doesn’t have the same impact.”



“I REALLY FEEL LIKE THE FACE-TO-FACE IMPLEMENTATIONS WERE A LOT MORE EFFECTIVE ONLY BECAUSE A LOT OF PEOPLE TEND TO BE MORE HANDS-ON LEARNERS AS OPPOSED TO JUST, YOU KNOW, LISTENING AND HAVING TO TOTALLY DEPEND ON PAYING ATTENTION TO THEIR COMPUTER SCREEN.”

Grantee

7. Supportive Services Provided by Projects

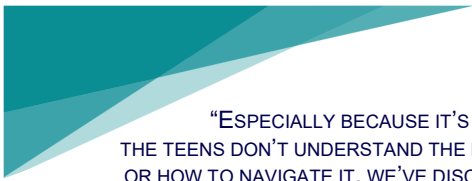
The TPP20 Tier 1 grant program included providing or connecting youth to supportive services together with delivering EBPs. The ways in which projects incorporated the supportive services component of the program varied by grantee, driven by their organizational approaches and missions, organization and community resources, connections to service providers, and degree to which they and their partners already delivered supportive services to youth.

Key Takeaways

- **The degree to which projects integrated supportive services varied, but most services were offered by referrals.**
- **In general, the pandemic made it harder to deliver services, connect youth to services, and identify the needs of individual youth. Mental health support emerged as an urgent need among youth.**
- **Some grantees also offered services that were indirectly related to health as a core component of their projects.**
- **Many grantees expanded their impact by training youth-serving adults on youth-friendly care.**

The degree to which projects integrated supportive services varied, though most services were offered by referrals. Grantees chose partners that could offer supportive services to their focus populations needed. They also referred participants to some services outside of their formal partner networks. Some projects prioritized connecting youth and families to accessible supportive services as a primary component of their overall approach. For example, several grantees hired staff dedicated to facilitating the project’s connections to services or providing case management for participants. Others used an existing staff member to conduct needs assessments and one-on-one counseling sessions with youth.

Most projects, however, took a more ad hoc approach to connecting youth and families with supportive services, in which EBP facilitators and setting staff (e.g., teachers, school nurses) waited until they were approached by youth showing a need for referrals. Some grantees noted that teachers in particular felt overburdened by this additional responsibility, given their other professional demands throughout the grant period. Referrals were generally smoother when settings had providers already on-site, such as social workers, to whom EBP facilitators could immediately connect students for support and further referrals.



“ESPECIALLY BECAUSE IT’S TEENS, AND A LOT OF THE TEENS DON’T UNDERSTAND THE HEALTHCARE SYSTEM OR HOW TO NAVIGATE IT, WE’VE DISCOVERED THAT WE DO NEED TO KIND OF HOLD THEIR HAND AND WALK THEM THROUGH THE PROCESS. AND AT THE SAME TIME, IT’S HELPED US TO DISCOVER WHAT OTHER BARRIERS THEY HAVE TO [OVERCOME TO] BE ABLE TO ACCESS THESE SERVICES—SUCH AS TRANSPORTATION, THE CHALLENGES THAT THEY MIGHT FACE WITH PARENTS, THEIR PARTNERS, PEER PRESSURE. SO, HAVE WE HAD TO MAKE CHANGES TO THE WAY WE DO REFERRALS? YES, YES, WE HAVE. DO WE REFER STUDENTS OUT AND SAY, ‘OK, YOU KNOW, HERE’S THE PATHWAY, GO GET SERVICE THAT YOU NEED.’ NO. MAYBE WE WOULD HAVE DONE THAT AT THE BEGINNING [OF THE GRANT], BUT NOW WE WALK THEM THROUGH THAT WHOLE PROCESS.”

Grantee

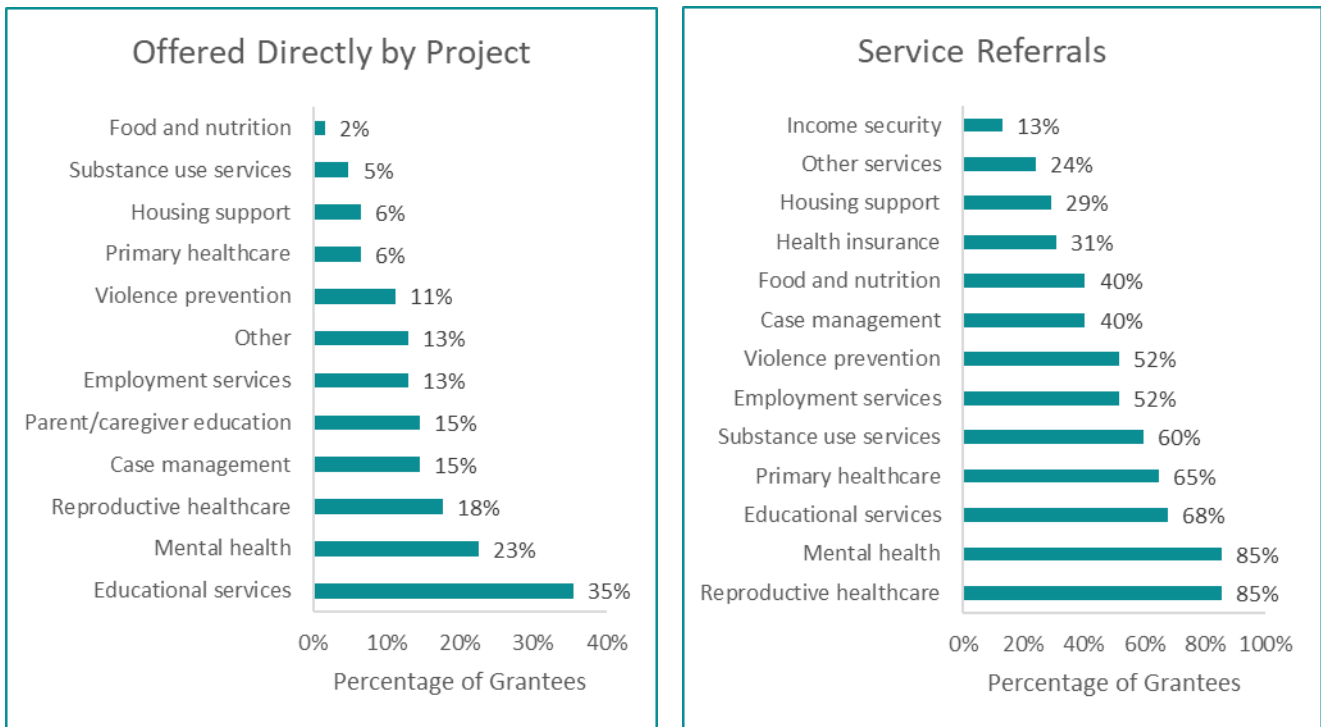
Some grantees implementing shorter EBPs found making those connections to services for youth especially difficult, as facilitators spent a limited time with participants. Many youth also needed direct support and guidance to navigate the process of obtaining services that went beyond providing contact information for a service provider. Some grantees worked to break down those barriers by organizing clinic tours, describing the process of medical visits during one-on-one counseling sessions, or bringing agencies into EBP settings to speak about the services they provided. Others used social media or other public communication to promote services available in their communities.

7.1 Supportive Services Provided by Projects

Most grantees offered at least one type of supportive service to youth and families directly, as part of their TPP project or in conjunction with other activities. Exhibit 7-1 summarizes the supportive services that grantees identified as offered directly to project participants and services to which project staff referred youth and families.

About one-third (35% of grantees) reported they provided educational services directly, and almost one-quarter (23%) provided mental health services directly. Grantees reported that most supportive services provided through referrals were to mental health services (85%) and reproductive healthcare (84%), and almost two-thirds to educational services (68%) and primary healthcare (65%).

Exhibit 7-1. Supportive Services Grantees Offered Directly and by Referral

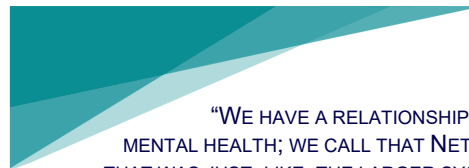


Source: Pre-interview forms completed by grantees and information provided in interviews.

Mental health support emerged as an urgent need among youth. Mental health care was among the most frequently mentioned supportive services offered, and several grantees said they wished they had adequate mental health resources and partnerships in the community. Support came in the form of direct delivery of counseling and by referrals to mental health providers. Services generally were provided via referral to partner health facilities, though sometimes the service was provided by other programs offered directly by the grantee organization. For example, one grantee did not offer mental health counseling through its TPP program, but services were available to focus population youth at the grantee’s separately funded health facility.

Some grantees offered services that were indirectly related to health as a core component of their projects. Other types of support included parenting classes; material support (food, clothing); job training; housing assistance; violence prevention services; youth leadership experience; and academic coaching, including college application support.

For example, one project delivered parenting classes designed for African American/Black parents to help build the support base for youth, which the grantee noted “helps the parent to become an advocate for their child.” Grantees and partners felt that a focus on other services and resources alongside EBPs and reproductive or primary healthcare allowed their projects to address some of the root causes of health disparities they had identified while increasing the appeal and sustainability of their project overall.



“WE HAVE A RELATIONSHIP WITH THE COMMUNITY MENTAL HEALTH; WE CALL THAT NETWORK 180 HERE. BUT THAT WAS JUST, LIKE, THE LARGER SYSTEMIC RELATIONSHIP, WHICH IS GREAT, RIGHT? AND WE’RE SITTING AT TABLES TOGETHER IN THE COMMUNITY, BUT WE ACTUALLY NEEDED, LIKE, A SERVICE PROVIDER. AND AS YOU KNOW, ESPECIALLY PRE-PANDEMIC, THE ABILITY TO FIND A SERVICE PROVIDER THAT WILL SERVE LOW-INCOME POPULATIONS IS VERY, VERY DIFFICULT IN OUR COMMUNITY.”

Grantee

Many grantees expanded their impact by training youth-serving adults on youth-friendly care. Grantees ensured that all facilitators had the tools to successfully deliver EBPs. Many grantees implemented supplemental training initiatives on strategies and topics to improve youth-friendly care. These initiatives were conducted with formal and informal partner organizations, such as local health departments, school districts, or clinics, and they focused on both knowledge areas (e.g., LGBTQ2S+ inclusivity, adverse childhood experiences) and skill building (e.g., mental health first aid, naloxone use, providing trauma-informed care). These training initiatives were often described in the context of sustainability and building capacity in communities.

8. Youth and Community Engagement in the TPP Projects

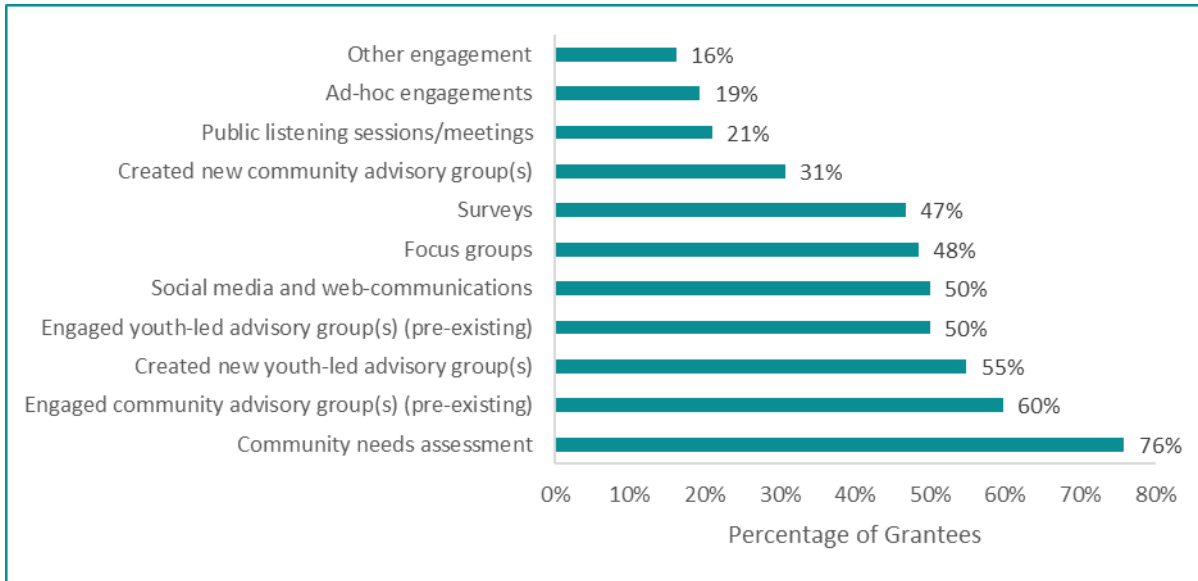
As part of the TPP20 Tier 1 grant strategy, OPA tasked grantees with applying “the power of youth and community voice” to ensure that the project fit the community needs and was successful in its goals (OPA 2020). Grantees incorporated community voices at different stages of their projects. Some engaged community input from the grant application and design stage, using pre-existing advisory groups, community connections, and needs assessments. Others engaged community members, including youth, as the project progressed, to ensure smooth ongoing operation; identify course corrections needed; or support messaging, recruitment, and community knowledge.

Key Takeaways

- **Community input and involvement were central to project implementation, and makeup and structure of community groups varied.**
- ***Grantees also sought informal feedback outside of organized groups.***
- ***Grantees involved parents and caregivers through focused project activities and feedback efforts.***
- ***Youth were actively involved through youth-led initiatives, which created a sense of buy-in among participants.***
- ***Peer-to-peer support programs served an important role.***
- ***Grantees used a variety of virtual and in-person strategies to reach community members with program information.***

Exhibit 8-1 shows the direct engagement activities grantees used to incorporate youth and community experiences, opinions, and knowledge into their projects. More than three-quarters of projects (76%) used a community needs assessment to better understand community needs, resources, characteristics, and priorities. Almost all either engaged existing community or youth advisory groups or established new ones.

Exhibit 8-1. TPP Projects' Community and Youth Engagement Activities



Sources: Pre-interview forms completed by grantees and information provided in interviews.

8.1 Community and Adult-Led Activities

Community input and involvement were central to project implementation, though makeup and structure of community groups varied. Some grantees leveraged community advisory groups formed for previous TPP projects; others formed new groups specifically for this grant. The local experts who served in these groups—often from community-based partner organizations—helped grantees avoid “reinventing the wheel” by advising grantees on existing resources and providing input on community needs, program design, and ways to improve implementation. Implementation settings and target populations sometimes played a role in who was included in these groups. For example, one grantee, a foster care agency that engaged youth in foster care in its TPP project, created a committee for adults who were foster parents or had been involved in the system as youth themselves. In school-based settings, committees included parents, teachers, administrators, and other school staff.

Grantees also sought informal feedback outside of organized groups. This occurred throughout the lifecycle of the grant, from seeking input from select partners on the grant application, to responding to parent or teacher concerns about the EBPs, to gathering partners at the end of the year to debrief and reflect. Because many grantees participated in community engagement events, they received feedback on materials and fielded questions about the program in those settings, as well.

Grantees involved parents and caregivers through both focused project activities and feedback efforts. Some projects had parents/caregivers in their community advisory groups; others carved out specific roles and activities for them. Strategies included implementing EBPs that had parental involvement and organizing workshops or training sessions for parents/caregivers on topics such as communicating with young people and mental health. Some projects conducted surveys, interviews, or focus groups with parents or caregivers at project start or throughout implementation to solicit input on EBPs or other program components.


Grantees reported mixed results involving parents/caregivers. Some were able to successfully engage parents/caregivers on most or all aspects of the project, but many grantees struggled with low parent/caregiver participation due to work schedules and other commitments, even when they offered incentives. Some grantees were able to engage pre-existing parent groups more successfully, where goals, participant roles, and meeting times and patterns had been established over time.

8.2 Youth-Led Activities

Youth were actively involved through youth-led initiatives, which created a sense of buy-in among participants. Many grantees

organized youth leadership councils, advisory boards, or similar groups where youth learned leadership and other skills, provided feedback on EBPs and other aspects of program implementation, participated in service-

learning projects, and contributed to outreach activities such as social media campaigns. A few grantees organized youth summits, where youth developed or coordinated sexual and reproductive health-related content and presented it to their peers or community at various venues. Grantees often worked to engage youth who were not heavily involved in school and academic activities already, to get diverse representation. Some leveraged existing youth groups that had been formed for previous TPP grants. Beyond providing feedback, youth-led activities were varied and unique, including art projects on health-related topics and clothing and food drives in their communities.



"I WOULD SAY HAVING SUCH STRONG YOUTH VOICE IN THE PROJECT HAS BEEN SUPER HELPFUL. ALL OF THESE YOUTH LEADERSHIP COUNCILS...PEOPLE CAN ARGUE WITH US IF THEY WANT, BUT IT'S HARDER TO ARGUE WITH THE VOICES OF YOUNG PEOPLE WHO ARE SAYING, 'THIS IS SOMETHING WE NEED.'"

Grantee

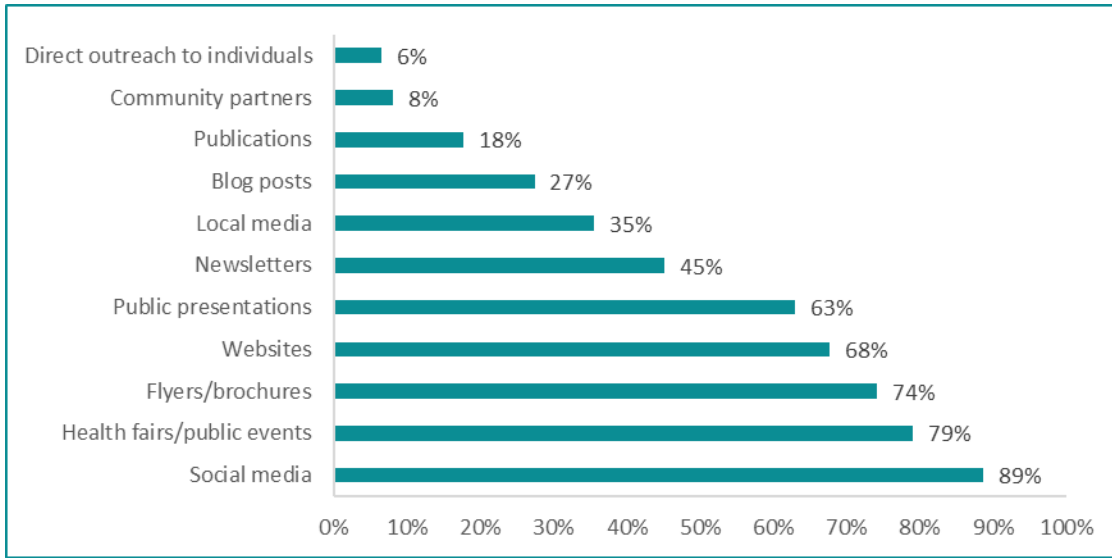
Peer-to-peer support programs served an important role. Several organizations hired high school-aged peer health educators, often for paid positions. Youth received training over the summer and monthly throughout the school year to provide medically accurate, culturally competent information to their classmates, often as part of EBP delivery. Across projects, these youth often had overlapping responsibilities with youth leadership councils, such as providing feedback on the EBPs, helping to plan events such as youth summits, and developing social media content. Like the youth leadership councils, peer support programs also served an important social role in allowing youth a safe space to ask questions, discuss difficult topics, and learn ways to prepare for the future.

8.3 Outreach and Information Sharing

Grantees used a variety of virtual and in-person strategies to reach community members with program information. Some common outreach methods included attending back-to-school nights, planning programming around annual events such as Youth Mental Health Awareness Month, and staffing tables at community events such as health fairs and Pride festivals, where they made flyers and brochures available. Youth were often involved in these efforts through youth leadership councils or other similar groups. Many grantees published information about their TPP program, youth health, and other relevant topics on their websites. A few developed ads with health information for radio, TV, and digital media. Exhibit 8-2 shows how grantees used each type of outreach approach to inform and engage the community.

SECTION 8: YOUTH & COMMUNITY ENGAGEMENT

Exhibit 8-2. Percentage of Grantees that Engaged in Select Outreach Activities



Source: Pre-interview forms completed by grantees and information provided in interviews.

9. Conclusion

The TPP20 Tier 1 grant structure required grantees to adopt a systems-thinking approach to implement EBPs and supportive services in settings designed to reach youth that were disproportionately at risk for unintended teen pregnancy and STIs. Projects also had to incorporate youth, parent/caregiver, and community input to inform the design and implementation of their projects over a two- or three-year grant period. At the time of data collection for this report, the TPP20 Tier 1 projects were one- to two-and-a-half years into the grant period. Each project faced challenges around partnering and implementing programming during the ongoing public health emergency caused by the COVID-19 pandemic. This section highlights the role the pandemic had in project implementation, what projects saw as their most important accomplishments or successes, what facilitated their success, and key lessons learned in developing and facilitating their TPP projects to reduce rates of teen pregnancy and STIs.

9.1 *The Role of COVID-19*

Because of the timing of the TPP20 grants, the COVID-19 pandemic and ensuing public health emergency had a substantial and unforeseen influence on project implementation. A separate brief (Garman et. al., forthcoming) examines TPP20 grantee experiences during the pandemic and adaptations to address new challenges and opportunities for support. Most Tier 1 projects launched in the Fall of 2020, soon after the pandemic started, disrupting communities nationwide and closing or limiting in-person classrooms, recreational and training activities, and some in-person services. Grantees had to pivot from their original plans and assumptions, which had been based on different options and constraints for in-person recruitment, EBP delivery, systems and community engagement, and different community priorities and resources than the ones that emerged. Grantees and their partners rapidly adapted EBP implementation to deliver them remotely and in hybrid (remote and in-person) settings and learned how to use a new set of online tools. Many grantees noted that remote delivery made it harder to engage participants and that some activities were not possible to deliver fully in a remote form without threatening the fidelity of the EBPs.

Many projects had to change, expand, or eliminate settings, sites, and partners to adapt to unexpected challenges. These challenges included schools that had an urgent need to focus on core academic subjects, in-person services that were no longer available, settings and sites that were not able to host external program facilitators, and partners with reduced capacity. Some youth and communities faced trauma and isolation because of the pandemic and other concurrent events, making it more challenging for the TPP projects to meet their needs. These events also highlighted the need for projects to build more connections to mental health support and treatment.

While less common, some grantees found silver linings in implementing the TPP program during the pandemic. For example, remote delivering and engagement allowed some to engage youth and community members in non-school settings or in youth and community advisory groups who could not easily travel to participate in person. Some projects were able to provide youth EBP participants with new opportunities for participation, ways to ask questions privately, or direct links to resources and services using online tools during remote EBP delivery. Some grantees using EBPs with a focus on communication and relationships, mental health and well-being, or positive youth development said that, through delivering these EBPs, they were able to meet needs that the pandemic increased or revealed.

9.2 Major Accomplishments

Asked what their major accomplishments were, grantees and partners identified the six accomplishments below, listed from most to least common.

- Youth and Community Engagement.** Across all projects, intentional, meaningful youth and community engagement was the most cited success. Throughout the grant period, grantees involved youth, parents/caregivers, and other members of the community in the projects—formally through youth and community advisory groups and informally at ad hoc events or interviews—to provide input on program content and feedback on programming received. Many grantees noted that even being able to incorporate these perspectives into the programming was a huge accomplishment given the challenges of operating during the pandemic. Several projects provided extra programming for youth in the form of youth summits or youth leadership opportunities, which provided additional venues for youth to learn about topics of interest, share what they had learned with their friends, and even become peer ambassadors.

Many grantees noted that the level of youth, parent, and community member engagement in these venues surprised them and demonstrated the importance of making these groups an integral part of the project. One grantee noted that because the community advisory group was so successful and well received by the community and partners, another partner organization was looking to fund continuation of that group after the TPP20 Tier 1 grant funds were exhausted.



“I’M REALLY PROUD OF OUR COMMUNITY MOBILIZATION EFFORTS. I MEAN, HAVING A STRONG PARENTAL ADVISORY TEAM, THAT’S BEEN JUST SO CRITICAL. AS WELL AS HAVING A STRONG COMMUNITY ADVISORY GROUP. WE HAD OUR FIRST IN-PERSON MIXER LAST WEEK AND IT WAS JUST AMAZING TO SEE THESE FOLKS COME TOGETHER THAT ARE ALL LIKE-MINDED, TRYING TO DO THE SAME WORK IN DIFFERENT SETTINGS BUT REALLY TRYING TO MAKE A DIFFERENCE.”

Grantee

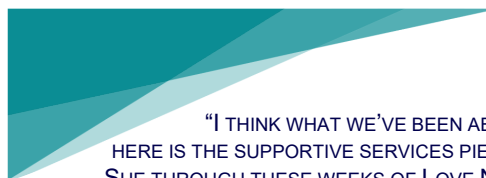
- Providing EBPs.** Grantees noted that providing evidence-based teen pregnancy prevention programming was a major success of the grant. Though this is a key element of the Tier 1 programming, grantees highlighted that being able to provide EBPs that are well tailored to their community’s needs, integrating EBPs into settings where they had been absent in the past, maintaining EBP programming in communities resistant to hosting sexual and reproductive health programming, and garnering community support for the EBPs provided were major accomplishments. Several noted that the reach they were able to achieve in administering EBPs during the pandemic—where access and program modalities were constantly shifting—and in a shifting political climate was also a major achievement. Grantees also saw their ability to adapt resources to digital settings and develop, improve on, or add content to meet youth’s needs as a major contributor to gaining community and youth buy-in and engagement with the TPP programming. Finally, grantees highlighted participants’ knowledge gains and their willingness to share those gains with their peers who might not have completed the programming as big wins for their programs.
- Strengthening Partnerships.** About a fifth of projects noted that the partnerships they were able to cultivate or deepen during their TPP project was one of the major

accomplishments of their work. Some grantees said that the trust, training, capacity-building, and strength of the relationships built with EBP implementation and setting partners—especially schools—will help embed EBP programming into those settings long after the grant has ended. Others noted that the breadth of their partnerships and being able to reach youth across their entire service area were major highlights of their work, which would help them continue to build on those relationships and connections.

- Pivoting during the Pandemic.** The fourth most common success grantees reported was their flexibility to be able to constantly adjust their project, staffing, and programming to respond to the conditions on the ground. As one grantee noted, “We were pivoting since day one.” Grantees noted that keeping their focus on the youth and the reasons for providing their programming kept them motivated and inspired innovation. In addition to adjusting the format of programming—from in-person (as intended during the grant application phase) to virtual or hybrid (as required when grant implementation started), then back to in-person over the course of the grant period—grantees also adjusted the content of their programming in response to changing needs and feedback from youth, parents, community members, and EBP facilitators.

Following the start of the grants, some grantees and their partners changed the EBPs because they did not meet the needs of the grantee’s target population, community, or settings or did not work well in the available online or hybrid settings required by pandemic-related social distancing restrictions.

- Integrating Supportive Services.** A few grantees called out their integration of supportive services into their TPP project as a major accomplishment. Grantees highlighted the need to address both critical health needs—such as making connections to mental health services and youth-friendly healthcare services—and other necessary life skills through connections to education services, workforce development, and financial literacy opportunities to promote overall adolescent health.



“I THINK WHAT WE’VE BEEN ABLE TO DO REALLY WELL HERE IS THE SUPPORTIVE SERVICES PIECE. IT’S, LIKE, IF I SEND SUE THROUGH THESE WEEKS OF LOVE NOTES, BUT DON’T TALK ABOUT THE NEED TO LEARN FINANCIAL LITERACY OR THE NEED TO FIGURE OUT MENTAL HEALTH CONNECTIONS, CAN WHAT HAS BEEN INVESTED IN HER BE SUSTAINED WITHOUT THOSE PIECES? AND I THINK ESPECIALLY FOR OUR COMMUNITY, THINKING ABOUT THOSE MULTI FACTORS AND RISK FACTORS THAT GO INTO THAT, WE REALLY WANT TO BUILD UP THAT PROTECTION AROUND THAT AND THAT RESILIENCE. AND SO THAT OFTEN TAKES MORE PIECES TO THE PUZZLE TO DO IN THE TIME THAT WE ENGAGE WITH THEM.”

Grantee

- Systems Thinking.** Three grantees pointed to their systems-thinking approaches as the major accomplishment of their TPP projects. Like the grantees that highlighted integration of supportive services as a major accomplishment, one grantee noted that creating connections between other systems to provide multi-tiered systems of support for behavioral and sexual and reproductive health was a big value-add for their program. The others highlighted the advancements they were able to make and the capacity they were able to build by bringing a network of people and organizations together to collectively elevate the issue of youth sexual health. As one grantee noted, this

collaboration built momentum, added capacity to the project, and allowed for several resources to be shared and additional services provided. Some noted that they anticipated their systems-thinking approach would allow programming to be sustained longer after the grant ended.



"I THINK SYSTEMS THINKING REALLY WAS THE WIN THESE LAST THREE YEARS, BECAUSE THAT'S WHAT WE COULD DO IN THE PANDEMIC. YOU KNOW, WE COULDN'T BE FACE-TO-FACE WITH KIDS, BUT WE COULD DO SYSTEMS THINKING."

Grantee

9.3 Facilitators of Success

In reflecting back during the final six months of their TPP20 Tier 1 grants, grantee staff and partners identified the four factors or approaches below as enabling their project's successes, listed from most to least often mentioned.

- **Developing Strong Relationships and Partnerships within the Community.** About a third of grantees identified building strong relationships with partner organizations, parents, and youth as the main facilitator of their project's successes. Strong partners not only served as champions of the program within the community, helping to gain buy-in and trust from implementation settings, parents, and youth; they also helped to remove barriers to implementation. Grantees that had been operating in the community for a long time noted that the strong relationships they had built lent them credibility to take on new roles within the community, implement new programming, or bring new partners to the table. Grantees also noted that strong partnerships facilitated their ability to be flexible and respond to changing needs, including adjusting programming modalities and content.
- **Having a Strong Project Team.** Interview respondents highlighted the dedication of their staff as one of the main contributors to their success. One grantee noted that to make progress in this work it needed a dedicated staff person who woke up every day and asked, "How am I doing this work? What is this work looking like? How do I motivate? How do I inspire? How do I advocate?" Having staff who are mission driven, have roots in the community or similar experiences or backgrounds to community members, and foster a supportive organizational culture was often mentioned.

Among projects where grantee staff delivered the EBP programming directly, several respondents noted that having skilled, approachable, and knowledgeable facilitators was critical to building trust, garnering youth engagement in the EBP programming, and receiving honest feedback from youth, and they helped ensure youth felt comfortable asking difficult or embarrassing questions. One grantee also noted the benefits of hiring staff who filled dual roles, such as working for the project but also serving as a pastor within the community, or were bilingual and able to engage Spanish-speaking youth.

- **Support from OPA.** A few grantees noted that OPA's flexibility and support contributed to their success. These grantees said that project officers were readily available as thought partners to help overcome early challenges with implementing the grant, shared resources, and helped reset expectations as the pandemic required projects to pivot from plans outlined in the grantee's original application.
- **Being Transparent about the Project's Goals and Needs.** Open communication about the TPP project and EBPs and designing programming in response to data collected about community needs was another facilitator of success for grantees. One

grantee said, “We’re aligning what we’re doing with the needs of that community, because that’s not reflected in all of us. We don’t have—our staffing and even within the grant—we don’t look like the students that we serve. So it’s important that we gather that information.” Another grantee highlighted that it was critical to openly convey its mission with clarity and through its actions to help overcome community resistance toward the program, as people tend to be apprehensive of things they do not understand.

9.4 Lessons Learned

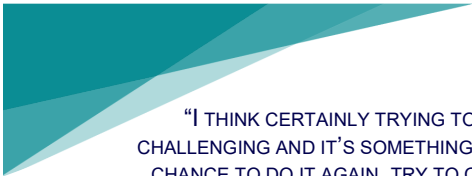
In reflecting back on what TPP projects were able to achieve, grantees and partners identified several lessons learned from how they implemented their projects. Across all grantees, the following themes emerged as to what grantees would have done differently.

Nearly one in five grantees said they wished they had modified the EBP they provided or offered additional EBPs. Some of the changes grantees wished they could have made were:

- Offering supplemental EBPs that could reach additional populations, including offering abstinence-based education in settings where policies or norms prohibited certain content or parents preferred to opt their children out of comprehensive sexual education.
- Allowing for the flexibility to go “off script” with the EBPs to address topics brought up by the youth, such as sexual education for youth who identify as LGBTQ2S+ or topics related to mental health.
- Identifying EBPs that were a better fit for their populations or adding or expanding supplemental topics focused on overall well-being and agency, including life skills and goal-setting.
- Offering additional EBPs to serve younger youth. Some grantees noted that starting in high school was too late as youth could have already begun practicing risk-taking behaviors.
- Selecting EBPs that were shorter in length. A few grantees noted that although they liked the content provided in their EBPs, the curricula were too long, which made them difficult to schedule with schools and made the material less engaging or digestible for the youth.

More heavily involve parents in the grant planning and the EBP delivery.

Parents were often one of the main obstacles grantees had to overcome in getting youth into their programs. Several grantees said they would have completely restructured the way they tried to engage parents to make engagement opportunities more accessible, such as making more activities virtual and conducting them outside of typical working hours. Others wished they had been able to offer incentives for parents to participate in the community advisory board or other



“I THINK CERTAINLY TRYING TO ENGAGE PARENTS IS CHALLENGING AND IT’S SOMETHING THAT, IF WE HAD THE CHANCE TO DO IT AGAIN, TRY TO CHANGE SOME OF THE WAYS WE DID THAT. LIKE MAYBE HAVE SOME STUFF THAT’S JUST FOR PARENTS, MAYBE PERHAPS HAVE THEM COME OUT AND LEARN SOME THINGS AND PARTICIPATE IN SOME SESSIONS THAT’S NOT JUST, YOU KNOW, NOT JUST ‘SO, THIS IS WHAT YOU NEED TO DO FOR YOUR KIDS,’ RIGHT? SOME PEOPLE GET TIRED OF YOU JUST KIND OF TELLING THEM WHAT TO DO. MAYBE SOMETHING THAT’S JUST MORE ENGAGING FOR THEM ON HOW TO BETTER INTERACT WITH THEIR KIDS. AND MAYBE IT’S SOMETHING... WHERE THE PARENTS AND THE YOUTH HAVE TO ENGAGE TOGETHER AND HELP THEM BUILD THOSE RELATIONSHIPS THAT WAY.”

Grantee

project activities. Several grantees noted they would have liked to have offered programming that involved parents/caregivers in how to talk to their kids about pregnancy prevention, relationships, and STIs so that parents could continue the conversation with youth at home.

Leverage youth input early and often. Though grantees incorporated youth input into their projects over time, many noted they would have preferred to have done so during the planning stage so that the overall program structure better accounted for youth's needs and wants. Some grantees noted that youth should have been involved in picking which EBPs to offer. Other grantees noted they would have involved their youth advisory groups more intentionally to better capture youth input and incorporate it into the project design and programming. Some grantees said they should have expanded their youth engagement channels to adapt to the ways youth communicate, such as increasing the use of text messaging and social media and even hosting more in-person events after social distancing protocols were no longer necessary.

The grant was not long enough to accomplish everything in the TPP20 Tier 1 grant strategy. One common challenge grantees had was the length of the grant, especially among the 13 grantees awarded their grants in 2021 and had only two years to implement their projects. Grantees' project start-up periods often lasted six to eight months, which cut into their ability to meet their reach goals. The challenges navigating the changing landscape brought on by the COVID-19 pandemic also meant that many grantees were able to start implementing their project as intended—that is, with in-person delivery—only a year or two into the grant. This short timeframe made it difficult for some grantees to bring in the additional supportive services or life skills curriculum they would have liked to include in their projects but did not have the time to fully explore or bring on partnerships to support. The grant's short timeframe also did not allow grantees enough time to form the community relationships, partnerships, and wider engagement and understanding needed to adopt a comprehensive systems-thinking approach, which many thought would take several years.

Hiring a mix of staff who can facilitate connections and deliver programming is critical. Several grantees expressed a desire to have staffed differently, had more staff, cross-trained staff in case of long absences (such as when staff caught COVID and were out for weeks), or brought on staff who represented members of their focus population. Like the desire to offer additional EBPs, one grantee expressed a desire to have brought on per diem staff (not employed by the grantee but hired to work on an ad hoc basis) who were trained in facilitating EBPs that the project staff were not trained in and did not have the capacity to take on. Two grantees reported it would have been helpful to have someone with a communications or sales background who could help get the word out to the community about the EBPs, gain support and buy-in for them, and even help with OPA reporting requirements.



"WE HIRED WONDERFUL PEOPLE WHO WE KNEW WOULD BE GOOD AT TEACHING, BUT WE DIDN'T LOOK AT THEM AND SAY, 'WELL, WE NEED SOMEBODY WHO IS A REALLY GOOD SALESPERSON, TOO,' BECAUSE THEY HAVE TO BE BRAVE ENOUGH TO GO OUT AND COLD CALL AND MAKE CONNECTIONS.... AND ALSO, HAVING SOMEONE WHO CAN SAY, 'WAIT A MINUTE. THIS IS NOT WHAT WE AGREED TO,' AND BEING ABLE TO FEEL COMFORTABLE SETTING THEIR LINE. AND YOU MAY NOT HAVE THOSE SKILLS AS AN EDUCATOR, BUT THOSE ARE THINGS WE CAN TEACH PEOPLE THAT MAYBE WE COULD DO BETTER IN THE FUTURE."

Grantee

Grantees would have implemented broader or more robust systems-thinking approaches if time and resources had allowed. Two to three years did not allow most grantees enough time to develop and implement a robust systems-level approach, for those needing to do that

from scratch. Several grantees expressed a desire to have taken a broader systems approach or involved additional or larger systems in their approaches, such as engaging the health system or foster care system in addition to the school system. For example, a few grantees said if they could start again, they would still have focused on the school system, but would have expanded so they were reaching youth before they got to high school and had already started accumulating risk. In other words, they would have taken “a holistic approach that considers the fact that you can’t start at age 13 with teen pregnancy prevention, you have to start much earlier than that in order to get to a child’s confidence and competence to achieve health.”

Setting selection affected the number and types of youth reached and the type of EBPs that could be offered. Grantees that struggled with youth engagement often expressed a desire to have selected alternative settings for EBPs. A few grantees that selected community-based settings said they might have been able to reach more youth or been better prepared had they selected schools or school districts—especially post-pandemic. Alternatively, some grantees that struggled to implement in schools, given the challenges with remote learning and competing priorities within the schools, expressed the opposite desire. They would try to implement, at least to start, in community-based settings or remote settings where shorter EBPs could be implemented, and youth might have been more willing to engage in the programming.

Youth could have benefitted from more intentional integration of supportive services. Though substantial integration of supportive services was not the primary focus of the TPP20 Tier 1 grant strategy, several grantees said they wished they had done more with this component. For example, some grantees offered referrals to supportive services, such as mental health or counseling services, but said they would have preferred to have been able to offer those services on-site or in a nearby building to increase uptake. Other grantees said that though they had staff responsible for creating and maintaining resource guides that could be provided to youth, they would have preferred to have someone dedicated to building partnerships with service providers to be able to more effectively connect youth in need to those supportive services. A few projects that did not provide referrals to mental health services said that such linkages would be essential in future projects, because “if you’re not being responsive to those things that are going on in their head [such as grief or trauma], they’re like, ‘What? I can’t even comprehend pregnancy prevention right now.’” Another grantee said, “We care about the kids as whole humans. I think [addressing additional components of wellness and well-being] is really important.”

Authors

Lesley Freiman, Abt Global

Tanya de Sousa, Abt Global

Lia Garman, Abt Global

Sonya Phillips, Abt Global

Kimberly Francis, Abt Global

Submitted to:

Alexandra Osberg, Public Health Analyst, Office of Population Affairs, Office of the Assistant Secretary for Health, U.S. Department of Health and Human Services

This report is in the public domain. Permission to reproduce is not necessary.

Suggested citation: Freiman, L., T. de Sousa, L. Garman, S. Phillips, and K. Francis. 2024. *Delivering Evidence-Based Programs to Prevent Teen Pregnancies and Support Adolescent Health: Implementation of the TPP20 Optimally Changing the Map for Teen Pregnancy Prevention Grants*. Washington, DC: Office of Population Affairs, Office of the Assistant Secretary for Health, U.S. Department of Health and Human Services.

Prepared for OPA under contract number: HHSP233201500069I _75P00121F37018

Disclaimer

This publication was supported by Award No. HHSP233201500069I _75P00121F37018 from the Office of Population Affairs (OPA). Its contents are solely the responsibility of the authors and do not necessarily represent the official views of OPA or the U.S. Department of Health and Human Services.

ACKNOWLEDGEMENTS

The authors of this report gratefully acknowledge the efforts of many individuals who assisted us as we conducted the Teen Pregnancy Prevention (TPP) FY 2020/2021 Evaluation. Special thanks to the TPP project staff and partners who participated in interviews for sharing their experiences and insights with the study team.

At the U.S. Department of Health and Human Services, Office of Population Affairs, the study team would like to thank its Project Officer, Alexandra Osberg, for her input and guidance throughout the study. We also thank Amy Farb, Elizabeth Laferriere, Jaclyn Ruiz, and the OPA Project Officers for their input and responses to requests made by the study team throughout the evaluation.

Many individuals at Abt Global and at our partners, Decision Information Resources and Data Soapbox, contributed to the implementation study and this report. The site visitors included Carol Pistorino, Caroline Roddey, Carolyn Layzer, Chelsea Whiting, Cynthia Castaldo-Walsh, Eleanor Elmudesi, Jhenelle Marson, Khaila Prather, Lesley Freiman, Leslyn Hall, Lia Garman, Maureen Sarna, Sonya Phillips, Tanya de Sousa, and Yolanda Logan. Leslyn Hall, Neil Thomas, and Krishna Epps provided support in developing and overseeing the web-based pre-interview informational form administered to all 62 Tier 1 grantees. Caroline Roddey, Chelsea Whiting, Cynthia Castaldo-Walsh, Eleanor Elmudesi, Khaila Prather, Jhenelle Marson, Lesley Freiman, Leslyn Hall, Lia Garman, and Sonya Phillips provided qualitative coding for the interview data.

The study's Project Quality Reviewer, Jodi Anthony, and Grantee Advisory Panel provided welcome and productive feedback on the study's evaluation design, data collection instruments, and this report. The team also appreciates Missy Robinson, Christina Eng, Jeff Smith, and Jessica Kerbo, who provided production and graphic design support.

Appendix: Study Methods

The Teen Pregnancy Prevention Fiscal Year 2020/2021 Evaluation

Between October 2022 and April 2023—during the final year of grant implementation—the study team conducted virtual or in-person semi-structured interviews with all 60 Tier 1 grantees.¹⁴ The study team interviewed staff from each grantee organization and, for half of grantees, staff from one of the grantee’s partner organizations. Because each Tier 1 project had a different approach and partner roles on a project varied, the study team selected and engaged partners for interviews in collaboration with the grantee. Data collection also included an observation of a grantee activity when possible.

Interviews covered the following topics:

- Community context and reach
- Systems-thinking approach
- Partnerships and partner roles
- EBPs and settings
- Supportive services
- Community and youth engagement
- The effect of the COVID-19 pandemic on implementation
- Key accomplishments and lessons learned

Prior to the interviews, grantees completed a web-based informational form to provide basic background information on their TPP project. Each grantee interview lasted two hours. Partner interviews were tailored to the role of the partner and typically lasted one hour.

In addition to the interviews, the study team reviewed data from the following sources: (1) grantee-prepared performance measure data submitted to OPA semi-annually; (2) grantee-prepared semi-annual progress reports submitted to OPA; (3) a review of the 62 awarded Tier 1 grant applications; and (4) other materials submitted to OPA as part of the grant requirements.

¹⁴ Two grantees had ended their Tier 1 grant in year two (2022) and were not included in the interview-based data collection.

References

- Boonstra, H.D. 2011. "Teen Pregnancy Among Women in Foster Care: A Primer." *Guttmacher Policy Review*, 14 (2). <https://www.guttmacher.org/gpr/2011/06/teen-pregnancy-among-young-women-foster-care-primer>
- Centers for Disease Control and Prevention. 2022. "The Social-Ecological Model: A Framework for Prevention." <https://www.cdc.gov/violence-prevention/about/index.html>. Accessed November 8, 2023.
- de Sousa, T., Elmudesi, E., Freiman, L., and Francis, K. 2024. *Building Networks to Develop Innovative Interventions for Teen Pregnancy Prevention: Implementation of the TPP20 Innovation and Impact Network Grants*. Washington, DC: Office of Population Affairs, Office of the Assistant Secretary for Health, U.S. Department of Health and Human Services.
- Freiman, L., de Sousa, T., Elmudesi, E., Garman, L., Layzer, C., Marson, J., Phillips, S., Prather, K., Roddey, C., Sarna, M., and Francis, K. 2024. *Delivering Evidence-Based Programs to Prevent Teen Pregnancies and Support Adolescent Health: Implementation of the TPP20 Optimally Changing the Map for Teen Pregnancy Prevention Grants*. Washington, DC: Office of Population Affairs, Office of the Assistant Secretary for Health, U.S. Department of Health and Human Services.
- Garman, L., de Sousa, T., and Roy, R. "Adapting During Uncertainty: How Teen Pregnancy Prevention Projects Responded and Adapted to the COVID-19 Pandemic. Washington, DC: Office of Population Affairs, Office of the Assistant Secretary for Health, U.S. Department of Health and Human Services, (forthcoming).
- Hamilton, B.E., Rossen, L.M., & Branum, A.M. 2016. *Teen Birth Rates for Urban and Rural Areas in the United States, 2007–2015*. NCHS Data Brief, No. 264. Hyattsville, MD: National Center for Health Statistics.
- Martin, J.A., Hamilton, B.E., Osterman, M.J.K., & Driscoll, A.K. 2021. "Births: Final Data for 2019." *National Vital Statistics Report*, 70 (2), 1–50.
- Office of Population Affairs. 2020. *Funding Opportunity: Optimally Change the Map of Teen Pregnancy through Replication of Programs Proven Effective (Tier 1)*. Opportunity Number AH-TP1-20-001. <https://www.grantsolutions.gov/gs/preaward/previewPublicAnnouncement.do?id=65377>
- Office of Population Affairs. 2023. Teen Pregnancy Prevention Program (TPP) Continuum. https://opa.hhs.gov/sites/default/files/2023-05/TPP-continuum-diagram_2023.pdf
- Oman, R.F., Vesely, S.K., Green, J., Fluhr, J., & Williams, J. 2018. "Sexual Knowledge, Attitudes, and Behaviors of Youth Living in Group Homes." *Health Behavior and Policy Review*, 5 (2), 74–87. <https://doi.org/10.14485/HBPR.5.2.8>