CASE STUDIES

Adverse Childhood Experiences

OVERDOSE
DATA2ACTION

Centers for Disease Control and Prevention
National Center for Injury Prevention and Control

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Introduction to Case Studies

The purpose of the case studies project is to capture in-depth information from the Centers for Disease Control and Prevention's (CDC) Overdose Data to Action (OD2A)-funded jurisdictions about current and emerging practices related to overdose prevention and response.

Each of the highlighted jurisdictions is funded through the multiyear (OD2A) cooperative agreement which focuses on understanding and tracking the complex and changing nature of the drug overdose epidemic and highlights the need for seamless integration of data into prevention strategies. Six key topic areas identified for interviews, analysis, and dissemination are listed here. Within each topic, specific activities and programs from various jurisdictions are captured as case studies. Programs and projects were selected based on a thorough review of current OD2A activities. These case studies illustrate overdose prevention and response efforts that can be shared with practitioners as they consider how to adapt interventions to their local context.

- **Adverse childhood experiences or ACEs**
- Harm reduction
- Linkage to care in non-public safety settings
- Public safety-led post-overdose outreach programs
- State and local integration activities
- Stigma reduction

Adverse Childhood Experiences

How does it work?

Adverse childhood experiences (ACEs) are preventable, potentially traumatic events that occur in childhood (0-17 years), such as neglect, experiencing or witnessing violence, and having a family member attempt or die by suicide. ACEs also include aspects of a child's environment that can undermine their sense of safety, stability, and bonding, such as growing up in a household with:

- Mental health problems
- Instability due to parental separation
- Incarceration of a parent, sibling, or other member of the household
- Substance use[1,2]

Behavioral Risk Factor Surveillance System data collected from 25 states from 2015-2017 showed that 61% of adults reported experiencing some form of ACEs during their childhood, and approximately 1 in 6 reported experiencing four or more ACEs.[3] Studies show that a higher number of these experiences are associated with poor mental and physical health outcomes, chronic medical conditions, employment difficulties, and lower educational attainment in adulthood.[3,4]

A growing body of work within the field of ACEs focuses on its intersection with substance use disorders (SUDs). ACEs are positively correlated with substance use and SUD risk in adulthood.[5,6] A recent scoping review indicated that those in treatment for SUDs had a higher prevalence of ACEs than those in the general population and found an association between ACEs and the development of SUDs.[7] ACEs and SUDs have also been seen to have an intergenerational effect — exposure to parental substance use is an ACE that is associated with increased risk for substance use.[1,8]

In recognizing the lasting negative effects ACEs can have, CDC collated a set of six evidence-based ACEs prevention and response strategies:[1]

- Strengthen economic support to families
- Promote social norms that protect against violence and adversity
- Ensure a strong start for children
- Teach skills to handle stress, resolve conflicts, and manage emotions and behaviors
- Connect youth to caring adults and activities
- Intervene to lessen immediate and long-term harms

Case Studies

The following case studies describe two OD2A-funded initiatives addressing ACEs.

The first describes the Injury-Free Louisiana Shared Risk and Protective Factors Academy,[a] which trains community partners on public health approaches, the importance and focus of primary prevention, and how to implement strategies using a shared risk and protective factor approach to prevent multiple forms of violence and injury, including themes that emphasize the link between ACEs and SUDs. The second describes South Carolina's Strengthening Families Program,[a] a nationally and internationally recognized evidence-based program designed to improve family relationships and to break generational cycles of violence, neglect, and substance use by focusing on individual coaching and utilizing a two-generation strategy.

CASE 1

Injury-Free Louisiana Shared Risk and Protective Factors Academy

CASE STUDY SNAPSHOT

- The Injury-Free Louisiana Shared Risk and Protective Factors Academy (IFLA)[a] trains community partners on public health approaches, the importance and focus of primary prevention, and how to implement strategies. They use a shared risk and protective factor (SRPF) approach to prevent multiple forms of violence and injury that emphasizes the link between adverse childhood experiences (ACEs) and substance use disorders (SUDs).
- IFLA trainings consist of two 2-day sessions and one 1-day session.
- Only one region in Louisiana is selected for each academy session. Regions are chosen for IFLA participation based on the burden (i.e., number or rate) of injuries in the community and the number and strength of partner and/or community level relationships to ensure interest and initiative for the trainings.
- Once a region is chosen, IFLA solicits applications and convenes a multidisciplinary team of five to seven individuals in multiple sectors, including behavioral health, public health, education, law enforcement, social services, and housing. Selected teams design and implement interventions that decrease and prevent injury and violence, including overdose.
- Trainers, also called coaches, are public health professionals who have been through the academy training with an IFLA trainer. Trainers are integral to the success of the academy.
- To date, two academies have been held, with 21 individuals in the 2019 academy and 13 individuals in the 2020 academy (7 teams total).

DESCRIPTION OF PROGRAM

Background

Louisiana's Department of Health oversees the IFLA, which is modeled after the Injury-Free North Carolinaa (IFNC)[a] framework. IFLA trains community partners on public health approaches, the importance and focus of primary prevention, and how to implement strategies with an SRPF approach to prevent multiple forms of violence and injury. IFLA training emphasizes the link between ACEs and multiple forms of injury (e.g., overdose) and negative health outcomes (e.g., SUDs).

IFLA strategically utilizes funding from three CDC cooperative agreements, Core State Violence and Injury Prevention Program (Core SVIPP)[b], Rape Prevention and Education (RPE), and Overdose Data to Action (OD2A), to recruit and hire key program staff. Core SVIPP and RPE fund IFLA coaches and/or trainers. Prevention managers, epidemiologists

from the Louisiana Department of Health, and other IFLA partners are the coaches and trainers who provide their expertise in-kind and conduct IFLA programming with participants. OD2A funding allows Louisiana to retain an IFLA coordinator to handle all logistical, fiscal, and programmatic matters.

IFLA trainings consist of two 2-day sessions and one 1-day session. The trainers, also called coaches, are public health professionals who have been through the academy training with North Carolina or with an IFLA trainer. Because Louisiana's IFLA model is based on IFNC, staff from North Carolina generously shared their expertise through collaboration and technical assistance (TA) and provided materials for implementation to Louisiana. This close collaboration between the states has helped with tailoring content appropriately and empowered Louisiana to conduct its inaugural academy in Spring 2019. To date, they have held two academies: one in 2019 (in-person) and one in 2020 (virtual). Semi-annual trainings will be offered going forward.

Recruitment and Process

IFLA uses a regional recruitment approach for their academies by selecting one of Louisiana's nine regions at a time, ensuring that its participants have a history of collaborative work. IFLA aims to recruit multidisciplinary teams of five to seven individuals representing multiple sectors, including

- Behavioral health
- Public health
- Education
- Law enforcement
- Social services
- Housing

The overarching goal for these teams is to design and implement interventions that decrease and prevent injury and violence, including substance use and overdose in their communities by addressing at least one SRPF associated with ACEs. Individuals from recruited teams obtain the approval of their supervisors and/or organization leadership before signing up for the academy, committing them to IFLA's process.

To date, two academies have been held, with 21 individuals in the 2019 academy and 13 individuals in the 2020 academy (7 teams total). Sectors and/or disciplines represented in the academies include law enforcement, coroners, social work, counseling, education, and case management.

Teams have primarily worked in southeast Louisiana. Since completing IFLA, one of the seven teams has leveraged the training to plan an intervention using the community café/parent café model. This model allows parents to connect and support each other, with the goal of increasing community connectedness and positive parent-child relationships.

Curriculum

IFLA in-person program consisted of three sessions, similar to IFNC.

- Session 1: Two full days of trainings that focused on the public health approach, primary prevention, the social-ecological model, SRPFs, and ACEs.
- Session 2: Two days of training, three to four months after the first session, that included presentations from subject matter experts, time with individual teams, and additional coaching. The session also focused on ACEs-related program planning and evaluation, including developing and measuring goals and objectives, developing a logic model, and identifying evidence-based interventions.
- Final Session: One day of training that took place several months after the first two so that teams could report on project progress and learn about sustaining their work and partnerships.

Teams received ongoing coaching between sessions to understand how to best plan and implement an intervention. In 2020, IFLA switched to a virtual format because of COVID-19. Sessions continue in a virtual format:

- Each class is two hours and classes are conducted over several weeks.
- Coaches hold office hours in between classes to answer team inquiries or to assist with the refinement of projects.
- Materials have been condensed to adjust to the online environment.
- Academy planners and coaches will debrief after the completion of each session of the academy to improve future iterations of the program.

PARTNERS INVOLVED

IFLA partners include community-level partners and staff supported through Core SVIPP[b] and OD2A.

Other community-level partners that support the program through participant recruitment and raising awareness include the Louisiana Foundation Against Sexual Assault, the Louisiana Coalition Against Domestic Violence, the Louisiana Governor's Office of Women's Policy, and The Haven, a local domestic violence shelter.

IFLA coaches also include the Louisiana RPE Program Manager and Prevention Manager. As IFLA grows, the program will continue to identify partners interested in promoting this model and to serve as coaches and trainers.

Louisiana partnered with members from North Carolina's IFNC to facilitate implementation of the inaugural academy and implementation of IFLA. Specifically, North Carolina staff invited a team of six from Louisiana comprising key funding and programmatic partners such as Core SVIPP and the Louisiana Coalition Against Domestic Violence and critical Louisiana Department of Health (LADOH) staff to participate in an upcoming IFNC Academy. North Carolina conducted in-person trainings with the Louisiana team and other North Carolina teams to aid in their implementation of IFLA.

DATA USED TO INFORM THE PROGRAM

Regions apply, then are chosen for participation based on several factors, including rates of injury morbidity and mortality via LADOH's injury data; rates of drug-related morbidity and mortality, and locations of prescribers and treatment services via the Louisiana Opioid Data and Surveillance System (LODSS); history of collaboration and buy-in amongst partners' leaders; level of interest amongst community partners; and an examination of ongoing violence and injury prevention activities.

As part of IFLA's programming, data from the Behavioral Risk Factor Surveillance System (BRFSS), Youth Risk Behavior Surveillance System, and National Survey of Children's Health and information from CDC's SRPF resource are shared with participants for exercises on selecting which SRPFs to address, creating a data story for the intended community, and developing an evaluation plan for their intervention.[9]

To monitor the success of IFLA, evaluation surveys are collected at the end of each session to measure knowledge gained, understanding of key concepts, confidence in applying skills, and satisfaction with the content and training. These data will guide changes and improvements to future academies.

BARRIERS AND FACILITATORS TO IMPLEMENTING INJURY-FREE LOUISIANA SHARED RISK AND PROTECTIVE FACTORS ACADEMY

Barriers

COVID-19 restrictions and social distancing requirements caused IFLA to pivot the format of its in-person programming to a virtual platform. Although this change was necessary due to the pandemic, it has caused several challenges.

- The first challenge was a decrease in overall participation. Without in-person interaction, teams found it difficult to collaborate on team exercises, develop partnerships or network, or build other forms of relationships and a sense of community.
- The virtual format posed a significant barrier to meeting program goals because so much of IFLA's initial curriculum was centered on in-person engagement.
- In addition to these platform-based challenges, some team members had difficulty prioritizing the academy's processes and projects due to competing agency demands related to the COVID-19 pandemic response.
- Because the academy held the virtual classes every other week, rather than on consecutive days, it was challenging for participants to retain information across multiple courses and for the academy to maintain its momentum.

Other barriers the program has faced include evaluating the nuances of SRPF approaches, tracking teams' successes after completing the academy, and securing resources to implement and sustain teams' interventions. Based on data collected about virtual trainings delivered in 2020, staff have planned to make changes to the virtual implementation for upcoming academies to mitigate some of the challenges above, including hosting fewer but longer classes for each academy.

Facilitators

Continued successful implementation of IFLA can be attributed to coaches' being willing to share their expertise and time with teams; access to funding and support from CDC, IFNC and peer networks; and participating organizations' willingness to take on SRPF projects to improve outcomes. Community readiness and willingness may be a contributing factor as well, but it has not been assessed formally at this time. Louisiana plans to make that assessment part of the state's injury action plan in the future.

EVALUATION OF INJURY-FREE LOUISIANA SHARED RISK AND PROTECTIVE FACTORS ACADEMY

To evaluate their efforts, the IFLA coordinator and coaches contact teams periodically to check progress, offer support, answer any questions, and share resources that may be relevant to their projects.

LADOH is interested in a general evaluation of the following:

- Did the teams implement their program?
- Which shared risk or protective factor was addressed?
- How long did it take?
- Have teams applied the key concepts (i.e., engaging multisector partners, using evidence-based strategies, focusing on primary prevention and community and society-based interventions) learned in the academy?

Example of LADOH's evaluation question and indicators

Question: What impact did the IFLA training academies' interventions have on ACEs-related programming and approaches to opioid overdose prevention and opioid use disorder treatment in Louisiana?

- **Process Indicator:** Description of barriers and facilitators to implementation of IFLA, and lessons learned
- **Outcome Indicator:** Change in IFLA participants' behaviors and attitudes as it relates to evidence-based prevention and treatment strategies (e.g., engaging multisector partners, selecting evidence-based strategies to address specific risk or protective factors)

OUTCOMES

During the first academy (Fall 2019), IFLA defined success as teams' having a clear understanding of upstream prevention and recognizing that SRPFs are associated with multiple outcomes; teams' understanding that high investment in individual behavior change may not be as effective as addressing health at the community level; and teams' being able to independently stand-up ACEs-related projects, find funding for projects, and use

data for evaluation. The number of programs or organizations collaborating on these projects was also considered a success of the program.

To date, seven teams have completed the program and implemented programming. LADOH aims to have 10 or more new teams in various geographic regions implement programs that focus on primary prevention of injury, violence, or ACEs by the end of the OD2A cooperative agreement.

SUSTAINABILITY

LADOH strategically utilizes federal funds from CDC's Core SVIPP[b], OD2A, and RPE cooperative agreements to implement and sustain IFLA. OD2A funds are used to support the academy coordinator, a full-time position that manages all logistics of the academy, including session organization, registration, facilitation, and evaluation. In-kind support from community partners, including the Louisiana Foundation Against Sexual Assault, the Louisiana Coalition Against Domestic Violence, the Louisiana Governor's Office of Women's Policy, and The Haven, enhances the sustainability of the academy.

CASE 2

South Carolina's Strengthening Families Program

CASE STUDY SNAPSHOT

- The Strengthening Families Program (SFP)[a] is a nationally and internationally recognized evidence-based program that focuses on individual coaching and has a two-generation strategy: children ages 6–11 and their parents and/or caregivers work on parallel activities, separately and together. These activities are designed to improve family relationships and to break generational cycles of violence, neglect, and substance use.
- SFP has been implemented in South Carolina for the past seven years through various funding streams and a nonprofit organization, Children's Trust, the largest provider of SFP in South Carolina.
- SFP includes structured components (parent skills training, children's skills training, and family relationship skills training) and limits group sizes to seven to nine families from each county. A standard booster session is held up to 90 days after the program's completion, and a session is held annually to bring families from previous cycles back together.
- Trainers complete an initial SFP group leader training and then become eligible to implement a cycle of SFP. Annual trainings and virtual meetings with peer trainers are also held to share best practices and lessons learned.
- Children's Trust works with the South Carolina Department of Alcohol and Other Drug Abuse Services (DAODAS) partners to recruit families for SFP. Family referrals are also obtained through the child welfare department, faith-based communities, schools, the housing authority, community-based organizations, and past graduates of the program.
- Site selection for SFP implementation was based on South Carolina's vulnerability assessment used to identify areas with high opioid overdose burden and low resources.

DESCRIPTION OF PROGRAM

Background

The SFP[a] is a nationally and internationally recognized parenting and family strengthening program. This evidence-based approach was created to increase protective factors and to reduce risk factors to prevent and mitigate adverse childhood experiences (ACEs). Dr. Karol Kumpfer originally developed SFP in 1982 to focus on individual coaching and a two-generation strategy: children ages 6–11 and their parents and/or caregivers work on parallel activities, separately and together. These activities, consistent with the "teach skills" strategy in the CDC's evidence-based ACEs prevention and response resource,[1] are designed to improve family relationships and to break generational cycles of violence, neglect, and substance use.

Children's Trust, a nonprofit organization, is the largest provider of SFP in South Carolina. The South Carolina Department of Health and Environmental Control's (DHEC) Division of Injury and Substance Abuse works in partnership with Children's Trust to operate SFP in various disproportionately affected communities across the state to improve parenting (or caregiving) and family dynamics. DHEC follows SFP recommendations, including the structured components (parent skills training, children's skills training, and family relationship skills training) and limits group sizes to seven to nine families from each county. The standard booster session, as recommended by SFP, is also held up to 90 days after program's completion and a session is held annually to bring families from previous cycles back together.

SFP has been offered in South Carolina for the past seven years and is supported by various funders. SFP implementation is part of the South Carolina's Overdose Prevention and Response Plan, which began in 2019. DHEC finished the first cycle of OD2A-funded SFP in 2020 with six cohorts in four counties: Dorchester, Fairfield, Horry, and Greenwood. Overall, 4,050 families have completed the program.

In-person programs were conducted in schools, faith-based communities, and community centers prior to the COVID-19 pandemic. Due to the COVID-19 pandemic, SFP was offered in both a virtual and hybrid format in 2020.

Trainers for SFP are chosen through Children's Trust. The trainers complete an initial group leader training and then become eligible to implement a cycle of SFP. Trainers are also offered annual trainings and conduct virtual meetings with peer trainers to share best practices and lessons learned. Once a trainer successfully completes the initial training and implements a cycle of SFP, they may choose to take the advanced training, which increases their knowledge of SFP, emerging literature from the field, and lessons learned.

ACEs Supplemental Initiatives

During SFP implementation, DHEC noted a gap in ACEs prevention and mitigation programming in schools. In response, DHEC chose the Botvin Life Skills Curriculum and the Pax Good Behavior Game (Pax GBG) curriculum[10] to fill in these gaps.

- The Botvin Life Skills[a] curriculum is an evidence-based program aimed at strengthening social skills to reduce substance use and other negative long-term outcomes. This curriculum supplements SFP and addresses the gap in programs available for middle and high school students.
- The Pax GBG[a] is implemented in K-5 classrooms and is focused on teaching self-management skills. The course has a known effect on substance use initiation[11] and offers an avenue for teachers to improve classroom dynamics and to engage students.

In 2020, DHEC implemented both Botvin Life Skills and Pax GBG curricula as an in-person pilot program at Richard Winn Academy, which houses pre-K through 12th grade, in Fairfield County. Most schools were hesitant to pilot new programs that were an addition to SFP due to the challenges of the COVID-19 pandemic. However, because of a DHEC employee's personal connection to the school, Winn Academy volunteered for pilot implementation of both curricula. DHEC hopes that, as the pandemic begins to stabilize, additional schools will be more inclined to join the pilot implementation of these two supplemental initiatives. To successfully implement these pilot initiatives, a DHEC health educator conducts training for both Botvin Life Skills and Pax GBG with teachers.

Family Recruitment

Children's Trust works with the South Carolina DAODAS partners to recruit families. They also receive family referrals from:

- The Department of State Services (DSS), which is the child welfare department
- Department of Human Services (DHS)
- Faith-based communities
- K-12 schools
- The housing authority
- Community-based organizations
- Alumni of the program

A recruitment flyer was also developed with graduating families' input to recruit for the virtual implementation of SFP.

While all referrals and applications are accepted if a caretaker and child aged 6–11 are in the household, other factors such as scheduling considerations (e.g., extracurricular activities, job schedules, and any other barriers that would keep the family from fully participating) and accessible, reliable Internet access are considered when the family is enrolled. These factors are all discussed with families prior to enrollment to ensure they can fully participate in the program.

DATA USED TO INFORM THE PROGRAM

Site Selection

To identify sites for SFP implementation, DHEC created and conducted a vulnerability assessment to identify areas with high opioid overdose burden and low resources. Other information considered for site selection included data from the South Carolina Behavioral Risk Factor Surveillance System's (SC-BRFSS's) ACEs module and data concerning substance use/use disorders prevalence, mortality, opioid prescriptions dispensed, naloxone administered, and hospitalizations related to overdoses.

DHEC also wanted to ensure one county was represented from each of the four regions in South Carolina: Pee Dee, Midland, Upstate, and Low Country. Using all the data available, one county from each region was chosen based on increased risk for ACEs and SUDs: Dorchester, Fairfield, Horry, and Greenwood.

During implementation, SFP and Life Skills preliminary data are collected monthly by grantees, which included:

- County name
- SFP trainer name
- Enrollment and graduation numbers
- Start and end dates
- Audience (i.e., DSS involved families)
- Activity for that month
- Successes, challenges, and lessons learned

Overall participant demographic data is also collected by child age and number of families enrolled and retained. The data are used to monitor and improve efforts and to communicate progress and results.

BARRIERS AND FACILITATORS TO IMPLEMENTING STRENGTHENING FAMILIES PROGRAM

Barriers

In-person implementation of SFP posed several challenges for families. Some families reported that transportation to and from SFP sites was a hurdle in several ways. They had to not only arrange for transportation but also felt that the traveling could disrupt bedtime routines at home. To ease some of the transportation burden, SFP provided transportation to families who reported access as a barrier. Furthermore, accommodating students' extracurricular activities (e.g., sports) was also a challenge in terms of scheduling.

The COVID-19 pandemic also posed multiple barriers to SFP implementation. These challenges were mainly due to the pivot to a virtual format and included Internet connectivity issues, difficulty keeping families engaged during sessions, and technical difficulties with the online environment (e.g., number of devices needed to be limited, microphones weren't muted). To overcome these barriers, the trainers used more Zoom features (e.g., breakout rooms, whiteboard, chat), rule setting (e.g., mute control, camera on), and 2-minute brain breaks every 20 minutes for children aged 6–11.

Facilitators

Trainers provided all manuals and worksheets to families to enhance engagement. Flip charts were shared on screen, and coloring books were offered to kids to avoid fidgeting.

Opening and closing rituals were adopted as an engagement strategy as suggested by an experienced SFP trainer. The rituals were implemented throughout the Children's Trust cohorts, and future cohorts will be encouraged to create their own opening and closing rituals to ease families into and out of each session.

Several other mitigation strategies were also conducted. For example, Children's Trust screens families and does not enroll those who have other commitments that could hinder participation, confirms families have the tools (e.g., tablets, hot spots) necessary to participate in sessions online, and hosts an orientation with families. Families' Internet and Zoom connectivity is assessed during this orientation to ensure they are a good fit for the program. Although not feasible in the current program, the provision of the technology and tools needed to participate could further facilitate future family enrollment and engagement.

Providing meals for families and having celebration activities, such as graduation parties, were other facilitators, along with rewards for doing home practice and/or homework activities. Directly providing meals wasn't an option during the COVID-19 pandemic, so SFP trainers encouraged families to have a weekly meal together and provided incentives (e.g., gift cards) to those families who did.

EVALUATION OF THE STRENGTHENING FAMILIES PROGRAM

The standard SFP validated evaluation tool[a] is being used to assess programmatic outcomes among SFP families (pre-test is administered one week before the program start and post-test is administered one week after graduation). Parents and/or caregivers are assessed separately from the children during the pre- and post-tests, and surveys are collected from each county as part of program evaluation. Furthermore, the evaluator conducts biannual site visits, and lessons learned will be disseminated to DHEC and the South Carolina Governor's Opioid Emergency Response Team.

To evaluate the Botvin Life Skills and Pax GBG curricula, program participation data are collected through monthly reports and evaluation surveys; data analysis occurs biannually. Pre- and post-tests for those participating in the Botvin Life Skills curriculum are used to measure change in knowledge and perceptions towards substance use among students and will be supplemented by qualitative data for both the Botvin Life Skills curriculum and Pax GBG.

Example of DHEC's evaluation questions and indicators

Question: To what extent were the SFP and Life Skills program delivered and received by the intended audiences?

- **Process Indicators:**
  - Number and regional location of SFP cohorts
  - Number of participants in each SFP cohort
  - Description of barriers or facilitators to delivering the SFP and life skills program
  - Description of program successes and lessons learned

OUTCOMES

To date, SFP has a high completion rate in DHEC counties: Between 80%–87% of enrolled families complete the program every year. Survey results revealed that 100% of families recommend the program, 86% found it helpful, 86% expressed interest in coming back for a refresher call/family reunion (booster), and 71% said it was helpful to them as a parent and helped their children. Participants reported that they experienced positive changes within their families, such as an improved ability to cope with stress and improved communication between themselves and their children (e.g., providing specific details when giving directions).

SUSTAINABILITY

Year 2 of the program was expanded to include a Life Skills curriculum; however, South Carolina has not yet discussed sustainability of SFP beyond the end of the OD2A cooperative agreement. Continuation and future expansion of the program to include components such as needs and/or capacity building assessments to inform additional sites are all contingent upon continued funding opportunities.

DHEC would ideally want these assessments to be part of a county-level and state-level strategy plan to address ACEs. DHEC hopes to continue using the virtual format in comparison to in-person classes (pre-COVID-19 pandemic) to keep costs low and to improve program sustainability.

Evaluation Considerations

Evaluators can consider the following as they seek to evaluate similar programs that address adverse childhood experiences (ACEs).

Strategies for Successful Program Implementation to Address ACEs

- As a program, *determine what success*[a] looks like with your partners to frame short-term, intermediate, and long-term goals.
  - In the Louisiana case, awareness of upstream prevention was one type of success. Defining success will determine the type of interventions developed and the most appropriate evaluation design.
- The COVID-19 pandemic required *receptiveness to adapt interventions* to online trainings. Evaluators may consider documenting tailored adaptations to evaluate effectiveness of these changes.
  - To overcome engagement barriers, South Carolina adopted opening and closing rituals for the virtual Strengthening Families Program (SFP). Use of the virtual setting also allowed South Carolina to expand reach to more adolescents with Botvin Life Skills.
- Succession planning *(identifying multiple funding streams)* is imperative because extended implementation could have evaluation implications, such as the ability to assess long-term outcomes.
  - Injury-Free Louisiana Shared Risk and Protective Factors Academy (IFLA) uses multiple federal funding sources to support their efforts which could help with sustaining their academy initiatives past federal funding cycles.
- *Inclusion of a health equity lens* needs to be considered in all stages of programming, including evaluation.
  - South Carolina used data to identify communities with high opioid overdose burden and low resources, which alleviated gaps in access to prevention programs for disproportionately affected populations and highlighted effects of targeted initiatives for these populations. It is important, moving forward, that programs continue to assess additional gaps in access to resources (e.g., internet access) and work to alleviate those additional gaps.
- Evaluators might consider *assessing strong partnerships and collaborations* (e.g., using the Wilder Collaboration Factors Inventory[a] or CDC Guidance for Collaboration with the Private Sector) to strengthen these relationships.
  - Both Louisiana and South Carolina found collaboration to be a significant facilitator in their programming. South Carolina believed the shift to offering SFP online was largely successful due to the expertise and standing partnership with Children's Trust.

Overcoming Barriers

- Lack of county/local ACEs-specific data
  - Use accessible data (e.g., BRFSS-ACE)[12] to inform evaluation strategies and to measure improvements over time until local mechanisms are established.
- Addressing ACEs from a life-course perspective
  - More programs may consider using lifespan or multi-generational approaches to evaluate the effectiveness of interventions that seek to address shared risk and protective factors; however, such programs may need to be evaluated longitudinally to understand multi-generational impacts within a community. To obtain buy-in and show a program's worth in the short-term, implementers could pilot innovations on a small scale, and evaluators could conduct small tests of change (e.g., use Plan, Do, Study, Act [PDSA]) to assess whether they may be promising prior to scaling up.

- Difficulty addressing/evaluating upstream factors
  - ACEs are intertwined with social determinants of health (i.e., upstream social/cultural factors that impact health outcomes). Using programs alone to address ACEs may not be wholly sufficient for tackling upstream factors, but findings from program evaluation could inform enacted and future policies. There is an immense need to *identify and inform policy gaps*[a] to address upstream factors that impact ACEs. While planning policy related interventions, evaluators could identify ways to assess immediate and lasting effects for future policy implications.

Additional Evaluation Questions

Louisiana and South Carolina replicated interventions and pivoted from an in-person to a virtual setting. Therefore, the following evaluation questions and indicators could be considered:

Question: To what extent were trainings conducted as originally planned?

- Process Indicator: Description of adherence to the original program's core components (i.e., resources, activities, processes)
- Process Indicator: Description of adaptations made to the initiative (e.g., intended audience, program differentiations, setting)

Question: To what extent were participants engaged in the training and able to retain the content in the virtual setting?

- Process Indicator: Description of barriers and facilitators related to virtual engagement of participants
- Outcome Indicator: Description of changes in participants' knowledge, skills, and attitudes in the virtual setting

Question: To what extent were participants satisfied with the delivery of the intervention?

- Outcome Indicator: Number and percentage of participants satisfied with training
- Outcome Indicator: Description of participant feedback post-training

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Endnotes

[a] The Centers for Disease Control and Prevention (CDC) cannot attest to the accuracy of a non-federal website. Linking to a non-federal website does not constitute an endorsement by CDC or any of its employees of the sponsors or the information and products presented on the website.

[b] Core SVIPP concluded in 2021 and was replaced by the Core State Injury Prevention Program (SIPP).