Strategies for Scaling Effective Family-Focused Preventive Interventions to Promote Children's Cognitive, Affective, and Behavioral Health: Workshop Summary

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Strategies for Scaling Effective **Family-Focused Preventive Interventions** to Promote Children's Cognitive, Affective, and Behavioral Health

WORKSHOP SUMMARY

Margie Patlak, *Rapporteur*

Forum on Promoting Children's Cognitive, Affective, and Behavioral Health

Board on Children, Youth, and Families

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This workshop summary has been reviewed in draft form by individuals chosen for their diverse perspectives and technical expertise, in accordance with procedures approved by the National Research Council's Report Review Committee. The purpose of this independent review is to provide candid and critical comments that will assist the institution in making its published workshop summary as sound as possible and to ensure that the workshop summary meets institutional standards for objectivity, evidence, and responsiveness to the study charge. The review comments and draft manuscript remain confidential to protect the integrity of the process. We wish to thank the following individuals for their review of this workshop summary:

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Although the reviewers listed above have provided many constructive comments and suggestions, they did not see the final draft of the workshop summary before its release. The review of this workshop summary was overseen by **Jeanne Brooks-Gunn,** Columbia University. Appointed by the National Research Council and the Institute of Medicine, she was respon-

sible for making certain that an independent examination of this workshop summary was carried out in accordance with institutional procedures and that all review comments were carefully considered. Responsibility for the final content of this workshop summary rests entirely with the rapporteur and the institution.

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1

Introduction[1]

Over the past three decades, researchers have made remarkable progress in creating and testing family-focused programs aimed at fostering the cognitive, affective, and behavioral health of children. These programs include universal interventions, such as those for expecting or new parents and workshops for families whose children are entering adolescence, as well as programs targeted to especially challenged parents, such as low-income single teens about to have their first babies, or the parents of children with autism. Some family-focused programs have been shown to foster significantly better outcomes in children, including enhanced educational performance and reduced rates of teen pregnancy, substance abuse, and delinquency, as well as reduce child abuse (Eckenrode et al., 2010; Gavin et al., 2010; Haggerty et al., 2013; Kitzman et al., 2010; Menting et al., 2013; Perrino et al., 2014; Prado et al., 2012; Spoth et al., 2009; Webster-Stratton and Reid, 2010). The favorable cost–benefit ratios of some of these programs (Lee et al., 2012) are due, in part, to the multiple and far-ranging effects that family-focused prevention programs targeting children can have. Other family-focused programs have shown success in smaller academic studies but have not been widely applied, have

[1]The planning committee's role was limited to planning the workshop. The workshop summary has been prepared by the rapporteur (with acknowledgment of the assistance of staff as appropriate) as a factual account of what occurred at the workshop. Statements, recommendations, and opinions expressed are those of individual presenters and participants and are not necessarily endorsed or verified by the Institute of Medicine. They should not be construed as reflecting any group consensus.

not worked as effectively or failed when applied to more diverse real-world settings.

The Forum on Promoting Children's Cognitive, Affective, and Behavioral Health was established in the fall of 2013, partially in response to the 2009 National Research Council and Institute of Medicine (NRC and IOM) report *Preventing Mental, Emotional, and Behavioral Disorders Among Young People: Progress and Possibilities,* which noted that there are a number of effective preventive interventions for youth that can modify risk and promote protective factors that are linked to mental, emotional, and behavioral health, but that more work is needed to apply this existing knowledge (NRC and IOM, 2009). The creation of the forum at this time is a critical next step to exploring how to build a stronger research and practice base around the development and implementation of programs, practices, and policies that foster children's health and well-being across the country, while engaging multi-sectorial stakeholders.

The forum chose to focus its first workshop on strategies for scaling effective family-focused preventive interventions because, as described above, research has advanced understanding of risk, promotive, and protective factors in families that influence the health and well-being of youth. However, despite the potential for widespread economic and social benefits, a challenge remains to provide family-focused interventions across child and adolescent development at sufficient scale and reach to significantly reduce the incidence and prevalence of negative cognitive, affective, and behavioral outcomes in children and adolescents nationwide, as well as to develop widespread demand for effective programs by end users. The forum's workshop, titled Strategies for Scaling Tested and Effective Family-Focused Preventive Interventions to Promote Children's Cognitive, Affective, and Behavioral Health, was held in Washington, DC, on April 1-2, 2014.

The workshop topics and speakers were selected by the workshop planning committee. The agenda was organized around the following topics:

- Successes and challenges in scaling family-focused interventions, as described by developers and implementers of four family-focused interventions that have been successfully brought to scale;
- State and federal perspectives of successes and challenges in scaling family-focused interventions;
- Lessons learned from developers of select family-focused interventions implemented in settings (e.g., pediatric primary care, schools, home visiting) that are emerging as important points of intervention;
- Financing and infrastructure to support the scaling of interventions, including potential opportunities afforded by Medicaid and the Patient Protection and Affordable Care Act; and
- Innovative models in scaling family-focused interventions.

The workshop also featured two keynote presentations on strategies for moving evidence-based practice to real-world outcomes, and engaging families of children with developmental disabilities in early detection, intervention, and prevention (see Appendix A for the full workshop agenda). At the end of the workshop, panel moderators presented themes discussed in their panels and discussed potential ways forward. The full webcast of the workshop and speaker presentation slides are available on the meeting webpage.[2]

During the course of the 2-day workshop, it was not possible to cover all potential topics or perspectives, and speakers could not exhaustively cover all relevant programs, policies, or research for each topic. Consequently, some relevant topics and programs could not be included in the workshop and, by extension, are not included in this workshop summary. This document is not intended to be a comprehensive review of family-focused research and programs to promote children's cognitive, affective, and behavioral health. Rather, the contents of this workshop summary reflect the research presented at the workshop and the discussions that followed.

SELECTION OF FAMILY-FOCUSED PREVENTIVE PROGRAMS

The family-focused programs discussed at the workshop, and links to more information about the programs, are provided in Box 1-1. The planning committee selected to include programs that have been implemented across a range of settings (e.g., homes, child welfare settings, schools, etc.) and that target different time periods during development spanning prenatal development to adolescence. The planning committee chose to highlight Nurse–Family Partnership, The Incredible Years®, the Triple P-Positive Parenting Program, and Keeping Foster and Kin Parents Trained and Supported (KEEP) as examples of effective programs that have shown success in being scaled because (1) the approach, curriculum, and training for these programs have been well specified; (2) randomized evaluations of efficacy have been conducted and published; (3) replication of the original program has been conducted and its efficacy reported; (4) recruitment procedures were specified, and the population to which results may be generalized; and (5) developers have had some experience in rolling out the program beyond the controlled trials.

[2]The full webcast and speaker presentations are available online: http://www.iom.edu/Activities/Children/ChildrensHealthForum/2014-APR-01.aspx.

BOX 1-1
Programs Presented at the Workshop

Advanced Parenting Education in Pediatric Settings (APEP)
http://clinicaltrials.gov/show/NCT00402857

Autism Navigator (online program)
http://med.fsu.edu/index.cfm?page=autismInstitute.autismNavigator
http://www.whyautismnavigator.com

Familias Unidas and Familias Unidas Online
http://www.nrepp.samhsa.gov/ViewIntervention.aspx?id=85

Family Check-Up
http://homvee.acf.hhs.gov/document.aspx?rid=3&sid=9

Healthy Steps
http://healthysteps.org/about

The Incredible Years®
http://incredibleyears.com/about

Keeping Foster and Kin Parents Trained and Supported (KEEP)
http://www.oslccp.org/ocp/services.cfm#keep

Nurse–Family Partnership
http://www.nursefamilypartnership.org/about

Parent Management Training Oregon Model
http://www.isii.net/2011SITEFILES/aboutpmto.html

Triple P-Positive Parenting Program and Triple P Online
http://www.triplep.net/glo-en/home

ORGANIZATION OF THE WORKSHOP SUMMARY

The workshop summary is organized into eight chapters, including this introduction. Chapter 2 describes four family-focused interventions (named above) that have demonstrated effectiveness in practice and that have been brought to scale. Chapter 3 describes select family-focused interventions that have been implemented in emerging settings and discusses opportunities and challenges to implementation in those settings. Chapter 4 describes several entities that have aided in the scale-up and implementation of family-focused interventions. Chapter 5 describes the experience of scaling

a family-focused intervention developed in the United States (the Parent Management Training Oregon Model) internationally. Chapter 6 discusses challenges that should be considered when scaling up evidence-based programs, including lack of demand, insufficient organizational capacity, lack of sustainable funding, and the various factors that go into decision making about whether or not to implement a program. Chapter 7 offers strategies for meeting such challenges, including building demand, building capacity, providing supportive infrastructure, and adapting and improving programs to meet the needs of the entities that adopt them. Chapter 8 summarizes themes that emerged during the workshop and identifies potential steps for moving forward.

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2

Scaled-Up, Evidence-Based Family-Focused Preventive Programs

Some evidence-based family-focused programs have successfully scaled up and spread at the state or national level, and in some cases internationally as well. This chapter provides a brief description of the aims, structure, and outcomes of four such programs—Nurse–Family Partnership, The Incredible Years®, the Triple P-Positive Parenting Program, and the Keeping Foster and Kin Parents Supported and Trained (KEEP) program—as described at the workshop by program developers and implementers. Challenges that need to be addressed when scaling up programs, and how to meet those challenges, are discussed in Chapters 6 and 7.

NURSE–FAMILY PARTNERSHIP

Begun in the late 1970s, the Nurse–Family Partnership (NFP) is a program of prenatal and infancy home visiting by nurses for low-income mothers having their first babies. The NFP focuses on this group of mothers because in poverty "women experience a lot of adversity that interferes with their capacity to care for themselves and their children," said David Olds of the Prevention Research Center for Family and Child Health at the University of Colorado at Denver, who developed the program. He added that the program's focus on pregnant women, some of whom are adolescent, enables it to target those young mothers whose own development is not complete, and who are going through major life biological transitions because of the hormones linked to pregnancy and caring for the first child. Because the brains of adolescents are still developing, Olds noted, "the opportunities to do good and bad are particularly salient." Olds emphasized

that the reason why the NFP has been successful in studies is because it aligns with the mother's biological drive to protect her children.

The main goals of the NFP are to help improve

- Pregnancy outcomes by improving prenatal health;
- Children's subsequent health and development by helping parents provide more competent care of the baby in the first 2 years of life; and
- Mothers' health and self-sufficiency by helping them develop a vision for what their lives might be like, and helping them understand how the decisions they make for themselves will affect their ability to protect themselves or their children, with a particular focus on planning the timing of subsequent pregnancies, completing education, and finding work.

The major functions of NFP include nurturing community, organizational, and state commitment to developing the program; ongoing education of and consultation with nurses; clearly articulating what the program is designed to accomplish and the essential components of the model in visit-by-visit guidelines; monitoring and assessing program implementation through an information system that is not too burdensome; and using that information to improve the model and replication efforts, said Olds.

Large, well-controlled studies in Caucasian, African American, and Hispanic communities found that the NFP fostered improvements, including reduced prenatal tobacco use (Matone et al., 2012), reduced child abuse and neglect and child health care encounters for injuries (Kitzman et al., 1997; Olds et al., 1997), among other improvements (see Box 2-1). The program also significantly improved children's language development (Olds et al., 2004a, 2014) and school readiness, as well as reduced their substance use and risk of entering the criminal justice system (Eckenrode et al., 2010; Kitzman et al., 2010; Olds et al., 1998). Mothers participating in the NFP experienced greater intervals between births (Olds et al., 2004b; Yun et al., 2014), improvements in employment, and had reduced use of Medicaid and other public assistance (Eckenrode et al., 2010; Olds et al., 2010).

The Washington State Institute for Public Policy estimated there is about a $17,000 return on investment with this program in Washington State (WSIPP, 2013), with a more recent analysis from the Pacific Institute for Research and Evaluation suggesting larger economic returns (Miller, 2009).[1] In addition, the Coalition for Evidence-Based Policy identified

[1]A description of the methodology used by the Washington State Institute for Public Policy to calculate a program's return on investment is included in Chapter 4.

BOX 2-1
Consistent Results Across Nurse–Family Partnership Trials

- Improvements in prenatal health
- Reductions in children's injuries
- Improvements in children's language development and school readiness (those born to low-resource mothers)
- Reductions in children's behavioral problems
- Reductions in children's depression
- Reductions in children's substance use
- Reductions in maternal behavioral impairment due to substance use
- Increased interbirth intervals
- Increased maternal employment
- Reduction in welfare and food stamp use

SOURCE: Olds, 2014.

NFP as the only early childhood program that meets its top-tier evidence standard.

After conducting a small-scale community replication, the NFP created a nonprofit organization in 1996 to implement the program nationwide and internationally. The NFP now operates in over 550 counties in 43 states, in which it serves more than 27,000 families. The NFP scale-up approach is summarized in Figure 2-1.

Funding for the scale-up of the NFP was provided by a variety of sources, Olds said. The Obama Administration's 2008 budget contained an $8.6 billion request for a home visiting program (the Maternal, Infant, and Early Childhood Home Visiting [MIECHV] program) for low-income, first-time mothers. The budget passed by Congress included $1.5 billion over a 5-year period. State and local funds, and, more recently, social impact bonds, have also supported the program's expansion.[2]

The NFP is currently expanding internationally to Australia, Canada, the Netherlands, and the United Kingdom, as well as to Native American populations.

[2]The Patient Protection and Affordable Care Act requires a national evaluation of the MIECHV program in its early years of operation called the Mother and Infant Home Visiting Program Evaluation. The evaluation, which will be presented to Congress in 2015, will lay the foundation and framework for understanding future findings from the national evaluation (HHS, 2013).

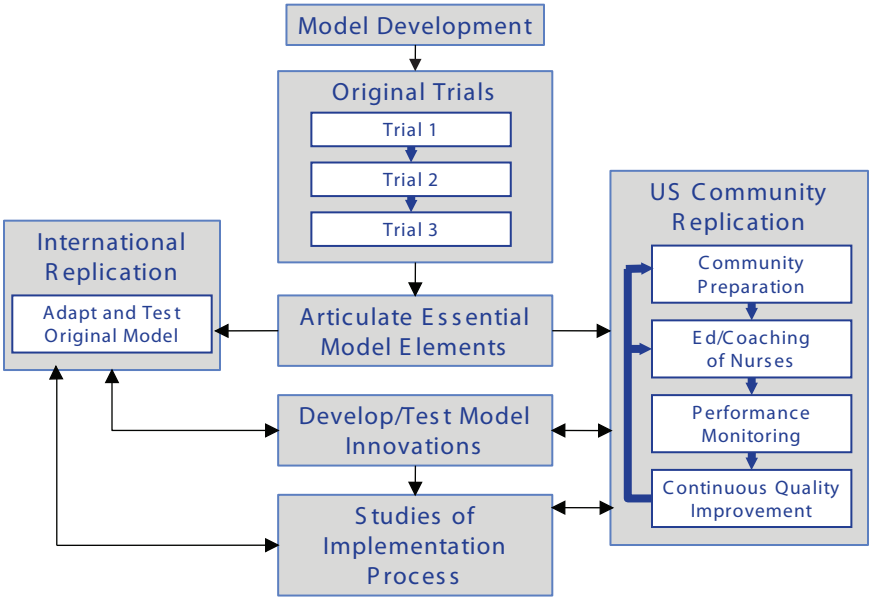

FIGURE 2-1 Nurse–Family Partnership scale-up approach.
SOURCE: Olds, 2014.

THE INCREDIBLE YEARS®

The Incredible Years® (IY) is a group of programs designed to promote emotional and social competence and to prevent, reduce, and treat aggression and emotional problems in children aged 0 to 12 years old. IY developed seven different programs for parents; two programs for promoting children's social and emotional development, one prevention and one treatment; and one program for training teachers in how to promote children's social and emotional development. Carolyn Webster-Stratton of the University of Washington and founder of the IY program explained that although each of the programs can be used independently, research shows additive effects when used together.

The short-term goals of IY are to improve parent–child relationships, to decrease harsh discipline, and to promote parent support from other parents, the community, and teachers. In this way, children's social and emotional development is strengthened and their conduct problems lessened with the long-term goal to reduce delinquency, substance abuse, and school dropout rates.

IY offers a series of training workshops for parents in which they

learn child development, positive parenting techniques, and ways to support children's academic achievements. Teachers attend a different set of workshops where they learn strategies for building positive relationships with students and families, disciplining children, and stimulating and supporting their academic efforts (The Incredible Years®, 2014). IY programs are delivered in a variety of settings including Head Start centers, primary grade schools, mental health centers, jails, homeless shelters, businesses, and doctors' offices.

Randomized controlled trials have shown that IY increased positive parenting and improved children's emotional literacy, social skills, problem solving, compliance, and school readiness. IY has also been shown to decrease harsh discipline by parents and children's conduct problems at home and in school (Azevedo et al., 2014; Gardner et al., 2006; Letarte et al., 2010; Menting et al., 2013; Perrin et al., 2014; Webster-Stratton et al., 2001, 2008). IY programs are being offered in most U.S. states, and more than 12,000 providers have been trained in the program in this country (see Figure 2-2). IY has also expanded internationally to more than 15 countries throughout the world (see Figure 2-3).

TRIPLE P-POSITIVE PARENTING PROGRAM

The Triple P-Positive Parenting Program (Triple P) "aims to create norms for positive parenting rather than just lament the lack of them, and to change the community context and assist parents who have the greatest needs," Ron Prinz of the Parenting & Family Research Center at the University of South Carolina reported. Triple P, developed by Matthew Sanders and colleagues at the University of Queensland, has accumulated more than 30 years of evidence for effectiveness (Sanders et al., 2014). This program gives parents simple and practical strategies to help manage their children's behavior, prevent problems from developing, and build strong, healthy relationships, Prinz said. The program targets five different developmental periods from infancy to adolescence. Although offered to all parents in the community, targeted and more intensive aspects of the program are only offered to parents who need it the most (see Figure 2-4). Variants of Triple P are also available for select populations, such as parents of children with developmental disabilities, parents of teens, and divorcing parents.

Triple P was designed from the outset to be implemented on a large scale, Prinz noted. The advantage of the population approach Triple P takes to offering parenting and family support is that it reduces the stigma of more targeted interventions, Prinz explained, and instead reaches out to the entire community. "If you knock on somebody's door and say 'I'm here to prevent child abuse,' they'll say, 'why don't you check my neighbor?'" he said.

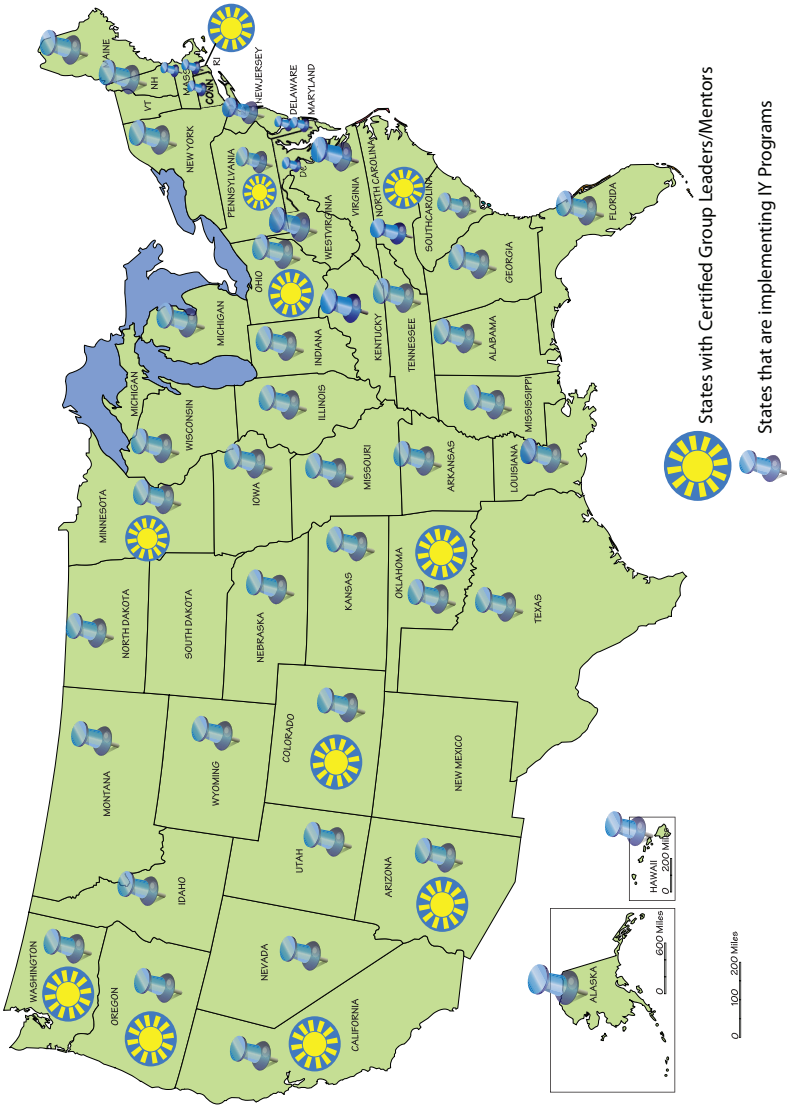

FIGURE 2-2 The Incredible Years® (IY) provider locations in the United States.
SOURCE: Webster-Stratton, 2014.

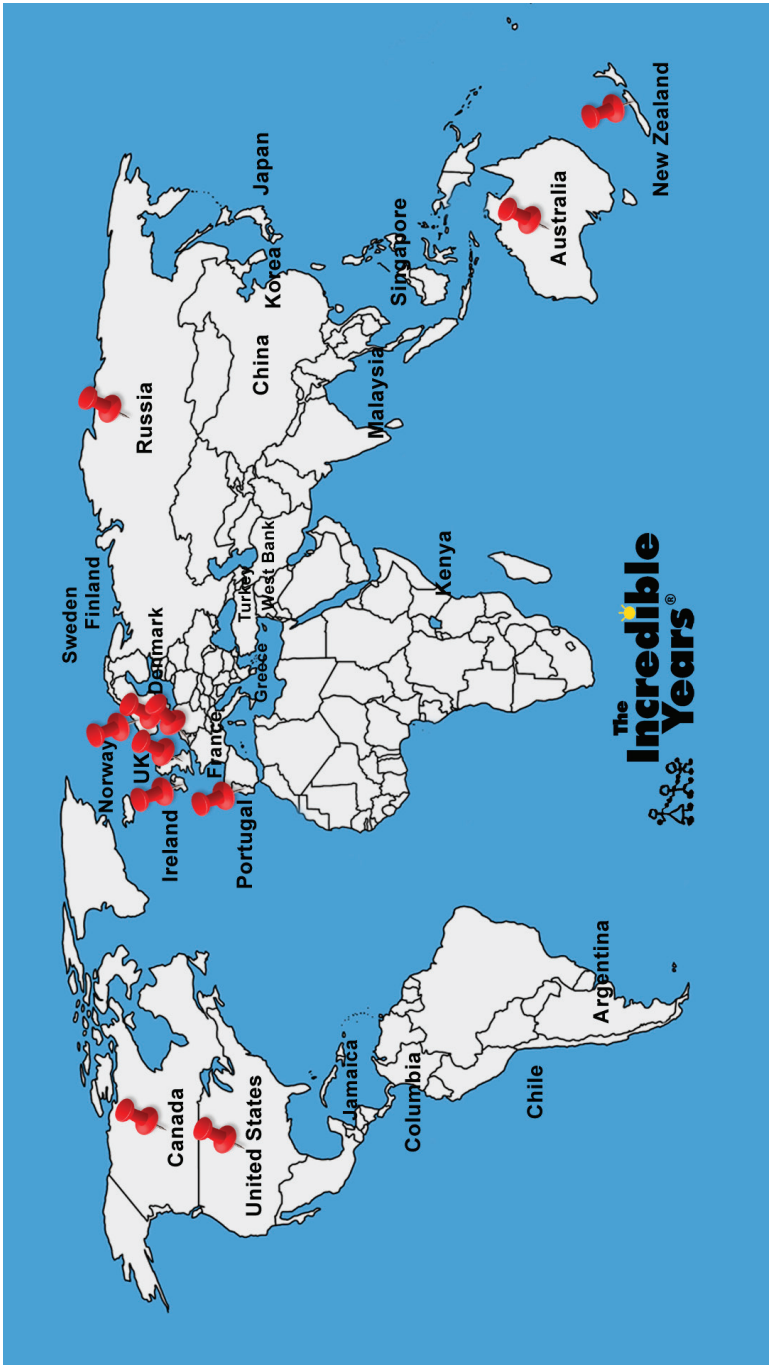

FIGURE 2-3 Scaling up delivery of The Incredible Years®: Countries where training occurs.
SOURCE: Webster-Stratton, 2014.

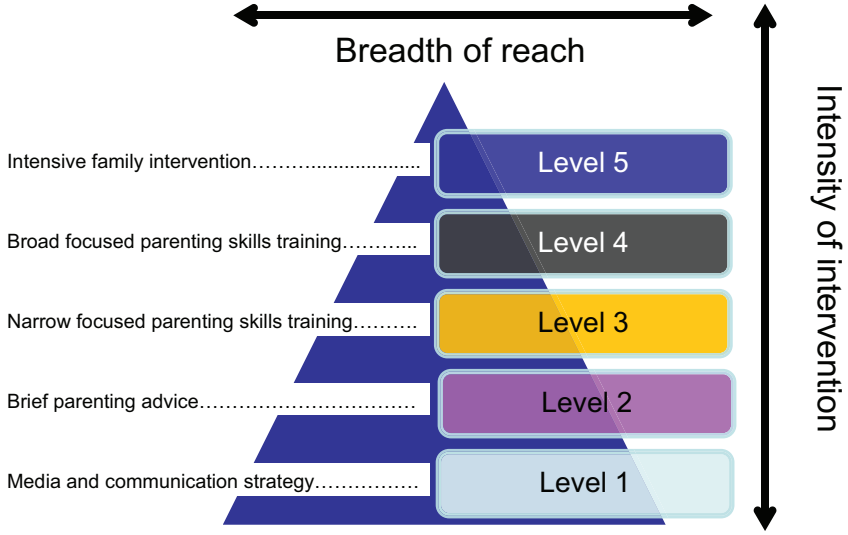

FIGURE 2-4 Triple P: Multi-level system.
SOURCE: Prinz, 2014.

Triple P is applied within a number of sectors, including education, health care, mental health, and juvenile justice systems, and it relies on the existing workforce to carry out its programs. According to Prinz, anyone with a professional capacity to work with parents, including child care directors, teachers, counselors, social workers, and psychologists, can implement Triple P programs, with more intensive interventions reserved for those with the most professional capacity for them.

To make it more scalable, Triple P provides multiple formats that can be delivered in different ways to match parents' needs, said Prinz. These formats include individual brief consultations; large group parenting seminars; longer individual programming that is delivered in the home, clinic, or center; and media and communication exposure. It also offers an online format. "By not putting all our eggs in one basket, we increase the likelihood we are going to reach many different parents and match their idea of what a program should be about in terms of how it works," Prinz said.

Triple P is also efficient, he noted, because the less intensive and least costly levels of it are offered more widely, with high-cost interventions reserved for those who need it the most. For example, media and communication strategies are applied more broadly, whereas more intensive family interventions are offered for a select group. Prinz said that Triple P takes the approach of starting with more succinct programming and then

adding additional program elements as needed. Efficiency is also gained with Triple P by using the same parenting intervention to simultaneously address several different problems, including child maltreatment and school misconduct, that all share parenting issues. In addition, the program offers multiple pathways for scaling. "It's the kind of thing where you can do it in pieces and build it further," Prinz noted.

Meta-analyses of the efficacy of Triple P and a variant of the program for parents of children with developmental disabilities (Stepping Stones Triple P) show positive effects on children's social, emotional, and behavioral outcomes, parenting practices, parenting satisfaction and efficacy, and child–parent relationships (Sanders et al., 2014; Tellegen and Sanders, 2013). The Washington State Institute for Public Policy determined that for children in the child welfare system, there is nearly a $9 return on investment with Triple P. Triple P is currently available in at least 28 states and 26 countries.

KEEPING FOSTER AND KIN PARENTS SUPPORTED AND TRAINED (KEEP)

Keeping Foster and Kin Parents Supported and Trained (KEEP) is an evidence-based support and skill enhancement education program for foster and kinship parents of children aged 5 to 12. Many foster children have complex and serious behavioral and mental health problems that put them at risk for negative long-term outcomes. Patricia Chamberlain from the Oregon Social Learning Center reported that KEEP is designed to strengthen the skills that foster parents have with the aim of reducing child behavior and emotional problems and subsequent placement disruptions from foster care.

KEEP is typically applied to small groups of foster parents who attend sessions that focus on practical research-based parenting techniques. KEEP groups are led by a facilitator and a co-facilitator (often foster parents) who are trained and supervised to skillfully implement the program staying true to the validated model. KEEP does not use a "one-size-fits-all" curriculum. While the facilitators draw from an established protocol manual, they tailor each session to the specific needs, circumstances, and priorities of participating parents and their children. Each week, the facilitators gather specific information about the children's current behaviors by telephone. This information is then incorporated into the weekly sessions to make sure the group is both current and relevant (OSLC, 2014). KEEP has been shown to increase the chances of a positive exit from foster care (e.g., parent/child reunification) and mitigate the risk-enhancing effect of a history of multiple placements (Price et al., 2008) as well as reduce child behavior problems (Chamberlain et al., 2008).

Because of the success of KEEP in Oregon, where it was developed, and in San Diego where there was a large-scale effectiveness trial (Chamberlain et al., 2008), Chamberlain was asked to develop a similar program for the New York City foster care system. Caseworkers ran the groups. The aims of this program, which is called Child Success NYC, were to decrease foster placement disruptions, decrease the length of foster care stay, increase the permanency for foster children, and have them placed more often with relatives without coming back into the foster care system. For the initiative to be cost neutral, Child Success NYC had to achieve a 20 percent improvement in each of these four outcomes. The outcomes are still under investigation.

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3

Emerging Settings for Implementing Family-Focused Preventive Programs

One workshop panel was devoted to presentations on family-focused programs that are being implemented in settings that are emerging as important points of intervention, such as pediatric practices, schools, home visiting settings, and the Web. Such programs included

- Healthy Steps and Advanced Parenting Education in Pediatrics—which are being applied to pediatric care settings;
- Family Check-Up and Familias Unidas—which are being applied to school settings and through home visitation; and
- Autism Navigator®, Triple P Online, and Familias Unidas—which are being offered online.

Representatives from these programs at the workshop described the opportunities and challenges of applying family-focused programs in these settings. Their experiences may offer insights on strategies to successfully bring programs to scale.

PEDIATRIC SETTINGS

Healthy Steps

Healthy Steps is an evidence-based program of primary health care for infants and young children initiated by the Commonwealth Fund in 1995. Healthy Steps focuses on promoting the emotional well-being of infants and young children and preventing mental health concerns. "The

goal was to infuse child development, trauma-informed care, and family support into primary care pediatrics," said Margot Kaplan-Sanoff from Boston University and National Director of Healthy Steps. She also noted that the program builds on the principles and practices of others, including Strengthening Families, Bright Futures, Fussy Baby, and the American Academy of Pediatrics.

Healthy Steps enhances well-child care by adding a Healthy Steps Specialist to the pediatric practice team. This specialist has an advanced degree in nursing, child life, early childhood mental health, or social work, and provides the continuity of care for families between their scheduled well-child visits. Such continuity of care is especially important in residency-based clinics, where a child can see a different physician with every visit. In such cases, a Healthy Steps Specialist is available to help coordinate care, Kaplan-Sanoff pointed out.

The family sees both their personal Healthy Steps Specialist and their pediatrician at the same time during each well-child visit. The Specialist can also provide a bridge between clinic and home care by making home visits at times when there are predictable developmental concerns, such as at 6 to 9 months when the child's mobility and separation anxiety increase, and between 15 and 24 months when the child is starting to talk. Additional optional home visits are also offered if needed. Kaplan-Sanoff emphasized, "Home visits are encouraged but optional because our goal is to make sure that parents know how to use primary care and it becomes their point of contact until they are connected to other services in the community."

The Healthy Steps Specialist provides a number of services for families, including the following:

- Developmental screening for the child and a child development information phone line or texting;
- Screening for family risk factors, including domestic violence, substance abuse, maternal depression, and smoking, as well as protective factors, such as home safety checks;
- Linking and referring to community resources;
- Offering written materials emphasizing prevention;
- Offering parent support groups and educational programs; and
- Supporting early literacy with the Reach Out and Read program.

To become a Healthy Steps site, the practice hires the Healthy Steps Specialist, and the Specialist, pediatricians, residents, and the clinic manager all attend a Healthy Steps Institute training program as well as have a year of technical assistance follow-up. The sites are financially supported by private foundations, federal programs—such as the Health Resources and Services Administration's Maternal, Infant, and Early Childhood Home

Visiting (MIECHV) program—and/or state funds. There currently are more than 70 Healthy Steps sites in the United States in a variety of settings, including hospital clinics, private practices, community health centers, and residency training programs. To expand further, Healthy Steps is partnering with various groups of professionals and paraprofessionals and offering training to serve as Healthy Steps Specialists for the families in their caseloads. These groups include public health nurses already making home visits in rural settings, doulas used by Native American tribes, and public health educators used in refugee camps.

Positive outcomes from the Healthy Steps program include parents having greater knowledge of infant development, better recognition of appropriate discipline, greater compliance with immunization schedules, and increased satisfaction with their pediatric care—as well as being less likely to disengage from it (Johnston et al., 2004; Minkovitz et al., 2003). A clinical trial of the Healthy Steps program incorporated developmental scientists and enhanced developmental services into pediatric settings during the first 3 years of life. Enrolled children were followed through age 5½, when computer-assisted telephone interviews were conducted with the children's mothers. The study found sustained treatment effects on a range of outcomes, including that parents were more likely to report child behavioral issues to the clinician; more likely to receive anticipatory guidance; more likely to report children were reading and looking at books more; and less likely to use severe punishment (Minkovitz et al., 2007).

Advanced Parenting Education in Pediatrics

Advanced Parenting Education in Pediatrics (APEP) is a parent training intervention carried out in a network of 11 pediatric primary care offices serving an economically, ethnically, and educationally diverse population in the Boston, Massachusetts, area that is focused on preventing oppositional defiance disorder (ODD) or attention deficit and hyperactivity disorder (ADHD) in high-risk toddlers. As Ellen Perrin from Tufts Medical Center pointed out in her presentation, it is well known that toddlers with early disruptive behavior are at risk for developing ODD and ADHD later in childhood. If those children can be identified early, their behaviors are responsive to changes in parenting. Pediatrics is an ideal setting to provide an intervention aimed at improving the behavior of toddlers because pediatricians see children and families frequently, have a long-term supportive relationship with them, and focus on prevention in general, Perrin pointed out.

APEP developed a screening checklist for disruptive child behavior that parents fill out for their children attending 2- and 3-year well-child visits. The checklist was based on longitudinal data indicating early predictors of

such behavior. Children with the predictors were then eligible for sessions in a parent education group that takes place in their pediatricians' practice settings. These educational sessions were based on The Incredible Years® (IY) curriculum and were co-led by practice staff trained in the program. This staff included nurses, nurse practitioners, social workers, pediatricians, and administrators.

An initial study of APEP found that only 41 percent of eligible parents agree to enroll in the program (Perrin et al., 2014). This low enrollment rate was probably due, in large part, to a rather burdensome research demand, Perrin noted. The controlled study documented a significant improvement in child and parent behavior 1 year after the educational intervention. Both participating parents and pediatricians responded favorably and enthusiastically to the program with almost all the parents wanting the groups to continue at the end of 10 weeks, and the pediatricians wanting to make the program a regular part of what their practices offered, Perrin reported. "This replicates findings that were found by others when these groups were done with parents of older children in a mental health setting," Perrin concluded. "So what we found is that it is feasible to run parenting groups in pediatric practices. Parents are happy, pediatricians are happy, and space was rarely a problem. And pediatric staff with some mental health or nursing background and IY training can run the groups with fidelity," she added.

The $10,000 start-up costs for the program were used to buy the appropriate IY materials and training for two leaders, but each session ended up costing only about $26 per family. Perrin added that even this modest cost after start-up was difficult to get reimbursed. In addition, most practices are not sufficiently big or have wide enough age ranges to have enough parents of 2- or 3-year-olds fill a group in a timely fashion. To counter this limitation, Perrin suggested making it available to eligible children between the ages of 2 and 6.

Opportunities and Challenges

Margot Kaplan-Sanoff described advantages to providing family-focused programs to promote children's mental, emotional, and behavioral health within pediatric settings. She pointed out that pediatric primary care can be a powerful point of entry into services for families with infants and young children because it offers a window of opportunity for families to learn about their child and themselves as parents. Healthy Steps has enjoyed a high recruitment and retention rate in part because it was implemented in pediatric settings, Kaplan-Sanoff noted. Primary care is accessible being universal, affordable with new health insurance coverage, and offered around the clock with same-day care for sick children. Perhaps more im-

portantly, according to Kaplan-Sanoff, care given in a pediatric setting is nonstigmatizing because everyone with a child goes to a pediatrician or family doctor, not just those with problems. Healthy Steps does not require a referral, but instead is offered as standard of care for every family. Perrin concurred with Kaplan-Sanoff that an advantage of pediatric settings is that they are accessible and more inviting than stigmatizing.

Pediatricians have high credibility and, therefore, can be good agents for validating good parenting practices, Kaplan-Sanoff noted, as most parents tend to trust their pediatrician. Primary care is also a setting in which the well-being of both parents and children may be addressed, and one of the best ways to help children is to help their parents, she said. Now that modern medicine has done an effective job curing many of the ills of children, there is a new focus in pediatrics on developmental and behavioral concerns in which parents may play a significant role. In addition, the birth of a child can be a motivating factor for parents wanting to change behaviors, such as smoking or substance abuse, that affect not only their own health but the health of their children, she added.

But there are also unique challenges in delivering a program in a primary pediatric setting, including the lack of time busy practitioners have for training and office visits. Kaplan-Sanoff emphasized that the program should never get in the way of the flow of a practice. In the case of Healthy Steps, Kaplan-Sanoff noted that pediatricians tend to welcome the program because Healthy Steps Specialists (who may be nurses, social workers, or other types of nonphysician providers) are brought in as part of the care team, which helps to minimize burden on physicians. Providing a program in a medical setting can also pose confidentiality and privacy issues regulated by the Health Insurance Portability and Accountability Act (HIPAA). It can also be problematic if parents are with their child when they meet with the Healthy Steps Specialist and issues come up that need more private intensive discussion between just the Specialist and parent, Sanoff-Kaplan noted. You may have to identify another time to have those conversations, she said.

Dishion agreed that time is one of the biggest challenges in pediatric settings. "Physicians are incredibly busy and are not going to do extra work that they are not billing for, so even having them show up to meetings regarding planning an intervention is challenging," he said. He added that another challenge is figuring out a billing niche for the services provided in a pediatric setting. "If you don't have a clear niche, it's not going to fly because people need to have a billing structure for it. That has to be worked out well in advance. So if we can solve the issue of billing, I think pediatrics is a fantastic setting," he said.

Later during the discussion, David Hawkins from the University of Washington asked to what extent the American Academy of Pediatrics

(AAP) or other relevant organizations might help develop a business model for applying programs such as Healthy Steps and Family Check-Up in pediatric settings. He noted that pediatric practices that offer these programs should be more attractive to parents and might boost the number of patients in their practice. "It's good for the practice and good for public health so if we could show a business model to pediatric practices that it is also good for business, we could quickly change how much of these programs are available in our country," he said. Kaplan-Sanoff agreed and noted that Healthy Steps, when carried out correctly, can actually save physicians time and enable them to see more patients. "There are some practices that would say they are actually able to see more patients and take on a bigger caseload because of the Healthy Steps program," she said.

Perrin added that the AAP and the American Academy of Child and Adolescent Psychiatry are currently interested in developing more team-based care, which would allow for more creativity in implementing family-focused interventions. Vera Frances Tait from AAP responded that from the AAP's perspective, "We are always looking for models to make this work and for the business case to make a point both for getting the services that children and families need, but also for proper payment for what is provided, particularly for prevention but also for treatment." She suggested one way to create and test those models is via Center for Medicare & Medicaid Innovation (CMMI) projects. CMMI projects are evaluated for their use of innovative payment and service delivery models to reduce program expenditures while preserving or enhancing the quality of care in Medicare, Medicaid, and the Children's Health Insurance Program (CMS, 2014). But of more than 2,000 CMMI current projects, only 11 are focused in pediatrics, she said.

Tom Boat of the University of Cincinnati added that, from his perspective, time is not a major factor impeding pediatricians from applying family-focused programs in their practices, but rather a lack of training on this approach to helping families. "Pediatricians are not so busy that they will not do the right thing, but practitioners in medicine do what they were taught to do and I don't think we are training pediatricians or nurses or social workers about these programs," he said.

Dishion agreed and suggested that in addition to health care staff receiving the right training, national associations for school counselors, social workers, and other relevant professionals should have exposure to family-focused prevention programs as part of their training standards. "Training is key," he said. Perrin added that recently pediatric training has started to include a small amount of training in developmental behavioral pediatrics and noted that side-by-side training was key to having nurse practitioners being used more in pediatric practices. "We need to develop training programs that include pediatricians, social workers, and psychologists that are

all learning side by side what it means to collaborate, because team-based care isn't going to happen if the training happens in isolation. It will happen if we start putting those programs together."

Kaplan-Sanoff agreed with Perrin and noted that Healthy Steps is already in a number of residency programs, and South Carolina just used their MIECHV funding to put Healthy Steps in all of their medical school settings. She pointed out that the residents who are exposed to Healthy Steps Specialists as part of their training tend to be more open to learning from them because, unlike their attending physicians, they are not evaluating the residents. "Our residents know much more about mental health because they have seen it naturally infused as part and parcel of the well-child visit," she said.

SCHOOL AND HOME SETTINGS

Family Check-Up

Family Check-Up (FCU) is a preventive program to help parents address typical challenges that arise with children and adolescents before these challenges become more serious or problematic. The program focuses on high-risk families, where normal challenges are more likely to lead to unfavorable outcomes, such as child conduct problems. FCU uses a parent consultant trained in the program model to meet with families in their homes to assess their family–child dynamics. After that assessment, the consultant provides a feedback session with the parents that uses motivational interviewing principles aimed at evoking change talk in the parent. Following the feedback session, families are provided the right type and amount of intervention based on their need.

Some families receive brief tailored parent management training (PMT) that encourages supporting positive behavior in the child, setting healthy limits, and building family relationships. Others may be linked to community treatment resources or the children may undergo cognitive behavioral therapy. "We try to link them to the right resources for the right conditions," Dishion said, and gave the example of a single mom of three children, who is in recovery from a drug addiction. She might be given recovery support and a relief nursery, where support is provided for her children, in addition to some parent training. "It's unrealistic to think a brief parent training model is going to be enough for this particular family," he said.

Several studies showed that when FCU was applied to families participating in the Women, Infants, and Children (WIC) program and in preschools, it reduced problem behavior in children, maternal and child depression, and parents' use of a coercive parenting style, while it improved children's school readiness, and parents supporting positive behavior in

their children (Chang et al., 2014; Connell et al., 2008; Dishion et al., 2008, 2014; Shaw et al., 2006, 2009; Smith et al., 2013). Some of these effects lasted at least 5 years. Dishion pointed out that the intervention also reduced parental coercion, but only when the parent consultant gave videotape feedback on their parenting style. Seventy percent of eligible families participated in FCU.

After initial studies indicated the effectiveness of FCU, Dishion and his colleagues started applying the program in public school settings to families with children aged 11 to 19. Long-term behavioral outcomes were gained in this new setting, including reduced antisocial behavior, early drug use, drug abuse, and high-risk sexual behavior. It also reduced depression rates in children and improved parent monitoring of child behavior, conflict in families, and it improved the children's grades and attendance in high school (Brennan et al., 2013; Caruthers et al., 2014; Connell et al., 2006; Dishion et al., 2002, 2003; Fosco et al., 2014; Stormshak et al., 2010; Van Ryzin and Dishion, 2012; Van Ryzin et al., 2012; Véronneau and Dishion, 2012). One-quarter to one-half of eligible families participated in public school setting FCU.

The FCU team then decided to scale-up the program and apply it to more settings. To do such scale-up, they developed a systemic implementation model (see Figure 3-1). To apply FCU broadly in a home visiting setting for preschoolers, in public schools, and in pediatric settings, the intervention was trimmed to make it more cost and time effective. Assessments were shortened to a half-hour and had Web-based supports, including videotaped sessions with therapists that were uploaded onto a confidential portal. The program was also translated into Spanish. In addition, a brief proactive screening was added to the pediatric program that identified families that needed more support.

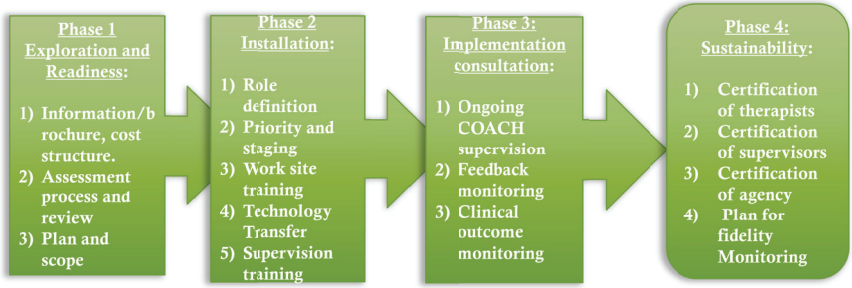

FIGURE 3-1 Overview of Family Check-Up team's systemic implementation model. SOURCE: Dishion, 2014.

Researchers are currently implementing FCU's home visiting program for early childhood in the state of South Carolina, its pediatric version in Phoenix Children's Hospital, and its school-based program in 42 schools, including about 25 schools in Oregon and 6 schools in Sweden. Three other states have also started applying FCU in their public schools.

Familias Unidas

This prevention program for Hispanic youth aims to prevent and reduce problem behaviors by increasing family functioning and parental monitoring of peer and school activities. It is delivered through family-centered, multi-parent sessions that teach parent and adolescent communication, positive parenting, and parental monitoring of peers. The program tries to place parents in the change agent role in the family, Guillermo Prado from the University of Miami School of Medicine reported. There also is an opportunity for the parent to practice some of the skills they have learned with their adolescents in school settings as well as in the home setting via a more limited set of family home visits.

Studies show Familias Unidas is effective in preventing and reducing a wide array of problem behaviors. It fosters a 40 percent reduction in drug use, a 60 percent increase in condom use, and a 50 percent reduction in alcohol use at the cost of approximately $200 per family (Prado et al., 2007, 2012a,b). Familias Unidas has traditionally been offered in school settings, but is launching a pilot study in four different clinics, including academic centers, pediatric clinics, and community clinics.

Opportunities and Challenges

One of the biggest challenges in implementing FCU in school settings is having enough time allocated to it, according to Dishion. Another challenge has been administrative turnover. "A school adopts FCU and then the principal leaves and there's no champion of your program at the school level," he said. But when there is a champion, schools are an excellent setting for delivery of the program, he added. Prado noted that the Patient Protection and Affordable Care Act offers new opportunities to integrating family-centered, evidence-based preventive interventions, such as Familias Unidas, within health care settings. The challenge is to make the programs minimally disruptive and not interfering with physicians' time in these settings, he added. To increase its reach and sustainability, Familias Unidas has also recently developed and tested an online version of its program (see Online Programs section on next page).

ONLINE PROGRAMS

In order to make their family-focused programs more widespread and to help contain costs, some developers have created online versions of them, including Familias Unidas, Autism Navigator®, and the Triple P-Positive Parenting Program. Other programs, such as FCU, use online support for their training and educational sessions.

Familias Unidas Online

Familias Unidas online can be accessed from a variety of electronic devices, including computers, tablets, and smartphones. The online program gives the same number of behavioral sessions as the standard program, but these sessions are comprised of mock groups that are videotaped with a trained interventionist, as well as culturally compatible telenovelas or soap operas. At the end of each session there is a cliff-hanger that makes the participants want to come back, Prado reported.

The online program also offers parents the opportunity to interact with optional interactive exercises "so they feel they are a part of the process, which is something that is so central to our family-based intervention program," Prado said. Family visits are done online via a setup similar to what Skype offers only with more privacy protections.

In a pilot study of the online version, all 16 parents in a focus group reported they enjoyed watching the intervention and found it entertaining. Parents felt that the intervention helped them better communicate with their adolescents, and about 95 percent claimed they identified with the characters and the situations in the mock group and telenovelas.

Autism Navigator®

Amy Wetherby and colleagues of the Florida State University College of Medicine developed the online program Autism Navigator® to meet the compelling need to provide early home-based autism interventions to the growing number of children being diagnosed with the condition. Many studies by Wetherby and others show autism can be detected as early as 16 to 20 months in children, and that interventions have the greatest impact if they start before 3 years of age, when they can help foster optimal development of the child's social communication, language, and behavior. But most children are not diagnosed with autism until they enter school. At this time, interventions for children with autism as well as other developmental disabilities are less likely to be effective because it is difficult for children to catch up on low reading and language trajectories. Wetherby noted that a child's rate of language acquisition is solidified and their learning trajec-

tories already formed by 2 to 3 years of age for language learning, which is positively correlated with IQ (Hart and Risley, 2003; Walker et al., 1994).

Wetherby pointed out that time-intensive (25 hours per week) interventions are often needed for children with autism. This requires supporting caregivers to apply these strategies in everyday activities before the child enters preschool. "We need to improve early detection as well as access to early intervention," Wetherby emphasized. "Eighty percent of children with developmental delays who will need early intervention and be eligible for special education services when they get to school age are missed and don't even get identified or receive early intervention," she added (see U.S. Department of Education, 2012).

Recognizing this, Wetherby and her team developed Autism Navigator®, a Web-based instructional system to aid the early identification and intervention of children with autism and with communication delays. This system has tiered supports and services, including a self-guided digital family tool. Videos embedded in the system show how to identify the early signs of autism and communication delays in the behavior of babies and toddlers. Those signs include delays in ability to share attention and interest, rate of and reason for communicating, developmentally normal inventory of gestures, sounds, play actions, and understanding words and book knowledge (see Figure 3-2) (Caselli et al., 2012; Watt et al., 2006; Wetherby et al.,

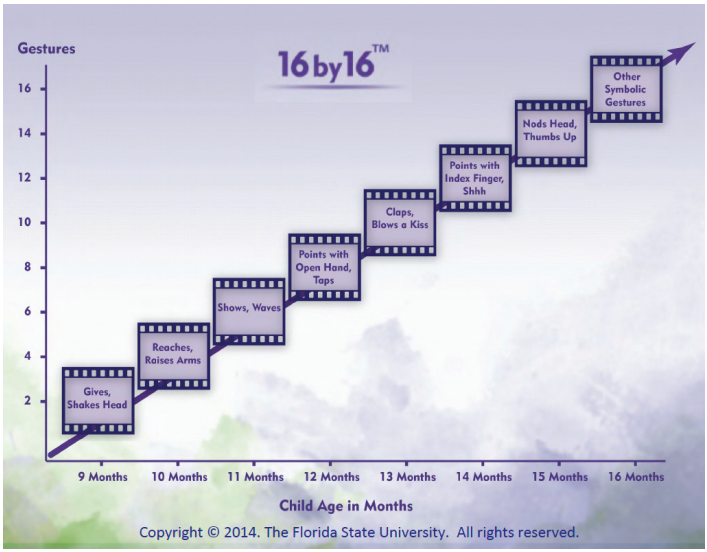

FIGURE 3-2 16 by 16: Gestures commonly observed in children, by age in months. SOURCE: Wetherby, 2014. Copyright 2014 by Florida State University. All rights reserved. Reprinted with permission.

2003, 2007). For example, gestures that develop between the ages of 9 to 16 months, such as reaching out with arms, showing, pointing, or waving, predict language 1-2 years later and, therefore, may inform early detection.

If a child has a communication delay, the system offers families a self-guided digital tool with social communication growth charts for children 9 to 24 months of age with tips to support development. If a child is also positively identified as having autism, the system will provide information about the importance of early intervention as well as an online guide for parents that will suggest evidence-based strategies they can use to foster their child's normal language and behavioral development. Autism Navigator® also has an electronic monitoring system that will enable monthly check-ins through text, phone, or other means, so providers can stay in touch with families using it to help treat their children with autism.

Two courses of Autism Navigator® have been developed. One is for primary care physicians and the other is for early interventionists. Future versions are planned for kindergarten classrooms, Head Start, and other preschool education or child care programs. Autism Navigator® also provides online tools for the public (see Figure 3-3). Wetherby pointed out that because Autism Navigator® relies heavily on embedding interventional strategies in everyday activities, such as caregiving, meals, family chores, or

FIGURE 3-3 Autism Navigator®: Free tools for the public.
SOURCE: Wetherby, 2014.

going to the store, its screening and intervention procedures can be adapted to the everyday activities unique to other cultures. Her team was able to successfully apply the model to the KwaZulu Natal region of South Africa, for example.

Triple P Online

Triple P Online is a comprehensive, eight-module Web-based program that guides parents through Triple P's core parenting skills (see Chapter 2 for a description of Triple P). Based on Level 4 Standard Triple P, it includes opt-in SMS or email reminders of session goals and strategies (Triple P, 2013). Prinz reported that the Child Protective Services system in Los Angeles County is using the online version of Triple P with the parents in their program.

Opportunities and Challenges

The future of family-focused preventative interventions will include eHealth (delivered via computers) and mHealth (delivered via smartphones or tablets), said Prado. Technology offers a lot of opportunity for increasing the reach of evidence-based programs, although this needs to be balanced with program efficacy. Maximized sustainability is another benefit of online interventions, he said.

The biggest challenges to overcome with online interventions will be engagement and retention. In the pilot study discussed above, Familias Unidas had remarkable engagement and retention for an online program, with 83 percent attending all five sessions that have been given online so far. Seventy-eight percent of families completed family visits online. "All the families that we were able to engage have been retained in the intervention," Prado said.

During discussion, Bowen noted that many low-income families do not have good access to Web-based programs. Often they do not have computers at home, he said, and even if they have smartphones, they may only be able to use them for a few days until their minutes run out. He also questioned whether online programs such as Autism Navigator® can reach and be effective for parents who are depressed and therefore not likely to engage with their children.

Wetherby responded that some parents' depression could be child-driven due to the child's autism or communication delay so the intervention offers a way out of their depression or a way of preventing it. She added that the online tools provided by Autism Navigator® can be used by providers who make home visits to low-income families or families who are at risk. "The technology can train very cost-efficiently the home visitor work-

force that we have for families at risk, so the technology is not only for the families," she said. She also suggested using funding to make the technology available at home for those low-income families who need it. "Think of the technology as nutrition for our children," she said.

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4

Intermediary Organizations and Scale-Up

Sometimes scale-up and implementation of prevention programs are aided by intermediary entities. In the case of family-focused prevention programs, such entities have included Invest in Kids, the Evidence-Based Prevention and Intervention Support (EPIS) Center, the Substance Abuse and Mental Health Services Administration's (SAMHSA's) Strategic Prevention Framework, Project LAUNCH (Linking Actions for Unmet Needs in Children), PROSPER (PROmoting School-community-university Partnerships to Enhance Resilience), the New York State Office of Mental Health's Clinical Technical Assistance Center (CTAC), and the REACH Institute. Representatives of these organizations presented at the workshop, and their remarks are summarized in this chapter. This chapter also includes a description of the Washington State Institute for Public Policy which has conducted economic cost–benefit analyses of evidence-based programs Washington State is considering funding. The chapter concludes with a table (see Table 4-1) that summarizes strategies used by the intermediary entities to aid scale-up and implementation of family-focused prevention programs.

INVEST IN KIDS

Invest in Kids is a nonprofit organization founded in 1998 by a group of lawyers and community leaders in the Denver, Colorado, area. The mission of this organization is to improve the health and well-being of vulnerable young children and families throughout Colorado. Working in partnership with local communities, Invest in Kids identifies, introduces,

implements, and tries to ensure the long-term success of research-based and proven prevention programs.

Invest in Kids meets with local community leaders throughout Colorado, ascertains what their greatest needs are for services, and then uses that information to do a national targeted search for appropriate prevention programs. Lisa Hill, executive director of Invest in Kids, explained that the search is restricted to programs that have been found not only to be effective, but to show a cost–benefit return to society. These programs also must serve predominantly low-income children, prenatal to age 8 and their families. "We bridge the gap between research and practice," Hill said.

Hill believes the broad-based community support and involvement they seek in pursuit of their goals is critical because it improves coordination and avoids duplication of services, as well as promotes the long-term sustainability of the programs both through political support and through invested local leadership.

Once Invest in Kids identifies programs for specific communities, it lobbies state legislators, providing data about both the need for the programs and the expected outcomes based on previous research, as well as the costs and accountabilities of those programs. Invest in Kids then helps implement family-based programs in Colorado through agency partnership and community collaboration. One of its partners is the National Implementation Research Network of the University of North Carolina, whose formula for garnering socially significant outcomes is that it depends not just on the effectiveness of interventions, but effective implementation methods.

A key activity of Invest in Kids is ensuring ongoing consultation and support after workers implementing prevention programs have been trained, according to Hill. Invest in Kids also ensures ongoing program success through measurement of results of the programs it supports (Hicks et al., 2008). The first program Invest in Kids promoted in Colorado was the Nurse–Family Partnership (NFP). This program is now offered in 60 of 64 counties in Colorado with a total capacity of more than 3,000 mothers, which is about 20 percent of the penetration rate of first-time Medicaid mothers in Colorado. Nearly 17,000 first-time, low-income families have enrolled in NFP since 2000. This has resulted in less tobacco and alcohol use and less domestic violence during pregnancy, a 20 percent greater immunization rate of 2-year-olds, and fewer mothers experiencing second pregnancies by the time their child is 2 years old.

Another program Invest in Kids has promoted and supported is The Incredible Years® (IY). More than 35,000 young children and 3,200 low-income parents have enrolled in the IY in Colorado since 2002. According to Hill, the program has improved children's ability to solve problems, control anger, self-monitor their emotions, make friends, and follow verbal instructions from their teachers. In addition, parents have improved their

positive parenting practices, such as setting clear expectations for not fighting, giving brief time outs, and more frequently discussing problems with children, with fewer parents resorting to spankings or empty threats of punishment. Concerned about maintaining the quality of staffing for the IY program, Invest in Kids employed 17 peer coaches around the state who are "moving the quality in the direction we need it to go," Hill said.

Invest in Kids also provides ongoing consultation and quality improvement for all the programs it supports by identifying gaps at the local level and determining ways to fill them. For example, the NFP in Colorado was suffering from a lack of nurse retention, and Olds found that clients are seven to eight times more likely to drop out of the program when their nurses leave. So Invest in Kids created the Nurse Practice Council, which is based on the magnet hospital concept, and brought 14 nurses for 2-year terms together to improve their outcomes. Since the Council has been operating there has been an increase in nurse retention. "We're seeing better client outcomes as a consequence of their sense of buy-in," Hill said.

EVIDENCE-BASED PREVENTION AND INTERVENTION SUPPORT (EPIS) CENTER

The EPISCenter is a collaborative partnership between the Pennsylvania Commission on Crime and Delinquency (PCCD) and Pennsylvania State University, with funding and support from the PCCD and the Pennsylvania Department of Public Welfare. The EPISCenter supports the dissemination, quality implementation, sustainability, and impact assessment of a menu of proven, effective prevention and intervention programs, and conducts original translational research to advance the science and practice of evidence-based prevention.

Brian Bumbarger of Pennsylvania State University, founding director of EPISCenter, started this unique partnership between policy makers, researchers, and communities in 2008 after recognizing that despite grants and a list of effective prevention programs, communities trying to replicate them struggled with their implementation. The three main goals of EPISCenter are to

- Mobilize and support prevention infrastructure at the community level to collect and utilize diagnostic epidemiological data for strategic prevention planning,
- Support and provide training and technical assistance for a specific menu of evidence-based interventions the state is providing grants to communities to implement, and

- Improve the quality of juvenile justice programs and practices, such as ensuring they are grounded in the latest research about child development and other relevant areas.

According to Bumbarger, EPISCenter tries to meet these goals by building general prevention science knowledge and capacity as well as program-specific capacity, in addition to facilitating interactions and communications between relevant systems (e.g., service providers, policy makers, and researchers/program developers). He noted that EPISCenter acts as an intermediary between developers of programs and organizations in Pennsylvania that want to adopt them. For example, EPISCenter helps schedule trainings for the IY program and makes sure that communities have not only built their capacity and are ready for the program before they adopt it, but that they understand what is needed to evaluate the implementation and effectiveness of the program.

In addition to building program-specific capacity in service providers, EPISCenter tries to build their general capacity to be data driven, and to understand the importance of research, quality, fidelity, and sustainability planning. EPISCenter also acts as a conduit between program providers, funders, and developers, and is a mediator between these stakeholders. EPISCenter has developed state-specific evaluation tools to meet state funders' requirements, and has partnered with the state to add a quality assurance requirement into the grants they fund. When the state funds a community to adopt a program, by the end of the second year, the community has to provide implementation data to the developer to demonstrate that the community is implementing the program with sufficient quality and fidelity.

SUBSTANCE ABUSE AND MENTAL HEALTH SERVICES ADMINISTRATION STRATEGIC PREVENTION FRAMEWORK

Recognizing that the prevention funds it provides would probably be more efficiently and effectively used if they were distributed according to a strategic prevention plan, SAMHSA began offering Strategic Prevention Framework State Incentive Grants. These grants provide states, jurisdictions, and tribes with funding to develop an infrastructure to support the development of a coordinated strategic plan for substance abuse and mental health prevention programs (SAMHSA, 2014a,b,c). Clarese Holden from SAMHSA's Division of State Programs in the Center for Substance Abuse Prevention reported that such plans must

- Assess prevention needs based on data;
- Detail how prevention capacity will be built and effective community prevention programs, policies, and practices implemented; and

- Evaluate prevention efforts for outcomes.

Every state, 9 territories, and 16 tribes have received these grants and created strategic framework plans. Holden explained that to create these plans, state governors built advisory councils comprising many of the partners, organizations, and agencies within the state that focused on prevention. These councils then constructed plans that detailed how they would institute five steps—assessment, capacity building, planning, implementation, and evaluation—while encouraging cultural competence and sustainability. "States are different, as are communities, so we cannot have a cookie-cutter approach to all of them. They are building their own strategic prevention plans and taking ownership of those plans so they are able to do what they need to do for their communities," Holden emphasized.

PROJECT LAUNCH

The primary objective of Project LAUNCH is to promote the social, emotional, behavioral, and physical health and cognitive development of young children from birth to 8 years of age. Under a federal grant program administered by SAMHSA, Project LAUNCH grantees work to reach the objective through five core strategies: developmental assessment, integration of behavioral health into primary care settings, home visiting, mental health consultation, and family strengthening and parent skills training (OPRE, 2014).

Project LAUNCH is a 5-year grant program that has been applied in 40 states, tribes, and communities since 2008, Holden reported. The program has a dual focus on systems improvement and implementation of evidence-based prevention and promotion practices. The program also fosters collaboration across sectors and works to enhance and expand programs rather than reinvent them. "State, territorial, tribal, and local partnerships are forming, and we are infusing mental health knowledge and expertise into all of our early childhood settings," Holden said. In Maine, this program targeted a rural and highly impoverished county by supporting families with high-risk pregnancies. Data suggest Project LAUNCH increased the rates of adequate prenatal care for teen mothers (12-19 years old) in Washington County, Maine, from 62 percent to 85 percent within 4 years.

PROSPER

PROSPER is a scientifically proven system for facilitating sustained, high-quality delivery of evidence-based programs that reduce risky youth behaviors, enhance positive youth development, and strengthen families. This delivery system links university-based prevention researchers with

two established program delivery systems within a state—the Cooperative Extension System at the Land Grant University and the public school system. The public school system offers access to youth in the community, while the Cooperative Extension System offers knowledge of community programming needs and experience in disseminating educational programs (PROSPER, 2014; Spoth and Greenberg, 2011). In this way, the delivery system entails a partnership-based approach to evidence-based programming, called the PROSPER Partnership Model (see Figure 4-1).

Using this model, explained Richard Spoth of the Partnerships in Prevention Science Institute at the Iowa State University, small and strategic community teams have access to the latest intervention outcome research from university scientists and benefit from the expertise and consistent support of the Cooperative Extension System. The PROSPER delivery system also ensures that programs for youth and their parents are implemented properly, are supported in the community, and can be sustained over time. Critically important in this effort are prevention coordinators, who provide ongoing proactive technical assistance, Spoth reported. These coordinators serve as a liaison between a university-based team and local community-based teams.

FIGURE 4-1 PROSPER evolving community partnership sustainability model.
NOTE: EBI = evidence-based intervention.
SOURCE: Spoth et al., 2004.

PROSPER Community Teams start with between 8 and 10 members, including a family and/or youth Community Extension–based team leader, a school-based co-team leader, and community volunteers, who include local mental health or public health representatives, local substance abuse agency representatives, parents, or youths. These teams expand as they mature, while being guided by technical assistance. PROSPER educates and trains its members to rigorously monitor their programs and provides them with a system for continuous as well as annual monitoring of their implementation quality. PROSPER also encourages teams to sustain their own programs with their own fundraising ventures.

Studies show that PROSPER significantly reduces substance misuse, negative peer influences, and other problem behaviors in youth, while strengthening parenting, family relationships, and youth skills. Research also reveals that PROSPER effectively mobilizes community teams, many of whom have sustained their programming efforts for as long as 10 years and have had high recruitment rates compared to other approaches for delivering school-based substance use interventions (Spoth, 2012; Spoth et al., 2013). In addition, PROSPER appears to be more cost efficient and effective than regular programming, with one study finding it reduces implementation costs by more than half (Crowley et al., 2012). "There are efficiencies gained with sustainability of an effective system. As organizations learn how to implement better, they become more efficient over time so the benefits of implementing through this delivery system offset the costs to some extent," Spoth explained.

NEW YORK STATE OFFICE OF MENTAL HEALTH CLINIC TECHNICAL ASSISTANCE CENTER

The New York State Office of Mental Health's (NYSOMH's) Clinic Technical Assistance Center (CTAC) aids providers in building their capacity to provide higher quality services for children and families. CTAC provides training and consultation in business practices, organizational and leadership support, and evidence-informed clinical practices. CTAC provides webinars, in-person, and learning collaboratives on quality improvement strategies to all 350 of the NYSOMH-licensed clinics serving children and families. "We are responsible for finding out what kinds of training clinics need and how we can best provide that support," said CTAC director Kim Hoagwood from the New York University School of Medicine.

CTAC helps clinics make the business case for evidence-based prevention and treatment programs before adopting them. "We work with them to ascertain how adoption will affect their productivity and volume and how they will bill for it. We do a lot of pre-rollout work with them to help them think it through, but it pays off," Hoagwood said. She added, "We

have a group of clinics that are teetering in a fiscal sense. We are working intensively with them over a 2-year period using a learning collaborative model to help them stay in business." CTAC also helps providers collect continuous quality improvement data on the programs they implement and use those data for supervision, Hoagwood said.

REACH INSTITUTE

Thomas Dishion from Arizona State University reported that the recently created REACH Institute of Arizona State University (ASU) offers infrastructure support to providers of programs. The REACH Institute of ASU is developing the online capacity for low-cost training, education, and support for global implementation of the Family Check-Up program model as well as other ASU interventions. These services are expected to reduce the upfront expenses for agencies as they adopt new programs. The Institute is also developing digital platforms for data collection and delivery of program protocols, and it will also redesign programs to better suit an adopting organization's needs.

WASHINGTON STATE INSTITUTE FOR PUBLIC POLICY

The mission of the Washington State Institute for Public Policy (WSIPP) is to carry out practical, nonpartisan research, at legislative direction, on issues of importance to Washington State (WSIPP, 2014). The institute has been instrumental at conducting innovative economic cost–benefit analyses of evidence-based programs Washington State is considering funding.

The institute, which was created in 1983, operates as an independent ratings agency and is often asked to evaluate what makes sense economically to implement, given restricted budgets. Topic areas that the institute frequently evaluates include crime, education, child welfare, and behavioral health, according to Stephanie Lee. "The legislature asks us to assess if we can get a positive return on investment with some of these evidence-based programs and policies," she said. The results of the institute's analyses are posted regularly on their website.

The institute takes a three-step approach to evaluating programs, Lee reported:

1. Meta-analyze all rigorous evaluations of policies to improve public outcomes of legislative interest.
2. Calculate the return on investment for various programs and policies by computing benefits, costs, and risk to the people of Washington State using a consistent crosscutting framework that can be applied to diverse areas. By considering the risk of errors in

measurement that would cause variance from the means used in cost benefit analyses, the institute estimates what proportion of the time one could expect an intervention to at least pay for itself or break even.

3. Calculate how specific portfolios of program investments would affect statewide outcomes and the risks involved in those programs.

"You don't want to put all of your eggs in one basket as a personal investor or as a government entity that's paying for programs. Instead, you want to spread your risk across a number of different populations," Lee noted. How long it will take to reap the benefits of various programs is also factored in such that there is a balance of long-term and short-term investments in the portfolio.

For example, Lee showed the factors the Institute considered as it calculated the return on investment in the NFP program. For each of these factors, the institute assigned appropriate dollar figures per family served in the program. The likely higher earnings of more highly educated women and children in the program translated into a $24,000 benefit, whereas the reduced criminal behavior reduced state costs by $5,000 per family. Lower health care and public assistance costs and benefits were also factored in, leading to overall benefits of about $27,000 per family and overall costs of around $10,000 per family.

The final return on investment figure of $17,000 per family participating in the NFP would not only be returned to tax payers but to a broad sector of society, including the mothers and children who participate in the program and the victims of crime that would be avoided by such participation, Lee noted. The institute estimated there would be a 76 percent chance of at least breaking even if the program was implemented in Washington State and a 24 percent chance that the program would not pay for itself. "So given the average return of about $17,000 per family and 76 percent breakeven point, we said this is probably a good investment for Washington State," Lee noted. She concluded, "When we think about creating a portfolio of programs or policies, these are the kinds of things we think about—how many different populations can we target, what are the timelines where we would expect those programs to pay off, and how can we best spread our investment across a number of different options."

The institute is currently being supported by the McArthur Foundation and Pew Charitable Trusts Results First Initiative to develop its cost–benefit model so other states can put their specifics into the model and have it churn out a tailored analysis. The WSIPP cost–benefit model is currently undergoing testing in 15 states, according to Lee.

SUMMARY OF INTERMEDIARY STRATEGIES TO AID SCALE-UP

The following table (see Table 4-1) summarizes the strategies to support the scale-up of family-focused prevention programs utilized by the intermediary organizations discussed at the workshop.

TABLE 4-1 Summary Table of Intermediary Strategies to Aid Scale-Up of Evidence-Based Family-Focused Prevention Programs

Program Name	Strategies to Aid Scale-Up
Invest in Kids	• Partner with the local community to ascertain what services best match the needs of the community • Conduct a national search for the most appropriate evidence-based and cost-effective programs • Lobby state and local legislators, using data, to demonstrate the need for and expected outcomes of selected programs • Build political support and investment by local leadership • Provide ongoing support and monitoring of program implementation
EPISCenter	• Build general prevention science knowledge as well as program-specific capacity • Provide technical assistance to service providers implementing a specific menu of evidence-based interventions • Facilitate communication among stakeholders and systems, as well as between the program developer and organization implementing the program • Support providers before a program is adopted to build capacity for implementation and knowledge of what will be needed to evaluate program implementation and effectiveness • Partner with states to include quality assurance requirement in grants • Develop state-specific evaluation tools to meet state funders' requirements • Mobilize and support prevention infrastructure at the community level to collect and utilize diagnostic epidemiological data for strategic prevention planning
SAMHSA (Substance Abuse and Mental Health Services Administration) Strategic Prevention Framework	• Grants to states, jurisdictions, and tribes to create strategic plans for prevention programs, including support for coordination and infrastructure building, that are specific to the needs of the given community • Encourage assessment, capacity building, planning, implementation, evaluation, cultural competence, and sustainability

TABLE 4-1 Continued

Program Name	Strategies to Aid Scale-Up
Project LAUNCH (Linking Actions for Unmet Needs in Children)	• Dual focus on systems improvement and implementation of evidence-based prevention programs • Foster collaboration across sectors • Enhance and expand programs rather than reinvent them • Infuse mental health knowledge and expertise into all early childhood settings
PROSPER (PROmoting School-community-university Partnerships to Enhance Resilience)	• Facilitate sustained, high-quality delivery of evidence-based programs • Partnership between small, strategic community teams and university prevention researchers • Prevention coordinators provide ongoing, proactive technical assistance, and act as a liaison between community teams and university researchers • Provide training on rigorous and continuous monitoring or program implementation quality • Efficiency gained through program sustainability
New York State Office of Mental Health's (NYSOMH's) Clinic Technical Assistance Center	• Determine the most appropriate training topics and formats for each NYSOMH clinic • Technical assistance offered through webinars, in-person consultation, and learning collaboratives on business practices, organizational capacity, leadership support, and evidence-informed practices • Work with clinics to ascertain how adoption of a program will impact productivity and budget (e.g., billing for services) • Support continuous collection of quality improvement data on implemented programs
REACH Institute	• Online capacity for low-cost training • Digital platforms for data collection and delivery of program protocols • Offer infrastructure support to providers of programs • Reduce upfront expenses for agencies as they adopt new programs
Washington State Institute for Public Policy (WSIPP)	• Conduct nonpartisan, innovative economic cost–benefit analyses of evidence-based programs • Apply a consistent, cross-cutting approach to computing benefits, costs, and risk • Assess whether an evidence-based program will yield a positive return on investment, if implemented • Evaluate economic costs and benefits of implementing an evidence-based program

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5

Expanding Programs Internationally

Several family-focused programs developed in the United States have been implemented internationally, including the Triple P-Positive Parenting Program, Family Check-Up, and the Nurse–Family Partnership. To offer an international perspective on implementation, Terje Ogden from the Norwegian Center for Child Behavioral Development described the challenges and successes of implementing in Norway the Parent Management Training-Oregon (PMTO) model, a behavior intervention program that provides parents with learning experiences related to parenting skills in five areas, including encouragement, discipline, monitoring, problem solving, and positive involvement.[1] Norway, as well as other countries in Scandinavia, have been highly receptive to empirically supported interventions for children, youth, and families, according to Ogden.

There is long-term governmental funding of the national implementation and research on evidence-based interventions in Norway, but also a high level of autonomy at the practitioner level and in the local communities. In 1999, the Norwegian government launched an initiative aimed at increasing the capacity and the competence of its child and adolescent service system to address the challenges of child conduct problems. The specific goal of this initiative was to decrease the use of incarcerations and

[1]The expansion to other countries of additional family-focused programs discussed in this report (e.g., the Triple P-Positive Parenting Program, Family Check-Up, and the Nurse–Family Partnership) was not discussed at the workshop and by extension is not discussed in this chapter. In addition to these programs, which were developed in the United States, there is much to be learned from family-focused programs that were developed in other countries.

out-of-home placements of children due to serious behavior problems by implementing family-based empirically supported interventions, such as PMTO. This initiative led to the creation of Norway's Nationwide Implementation Strategy, which Ogden helped develop. The strategy created the Center for Child Behavioral Development, whose aim is to develop, implement, and evaluate evidence-based interventions.

The center built an implementation infrastructure that had national implementation teams and combined a top-down with a bottom-up approach. Ogden noted that experts at the center selected the programs "we thought were the right ones to put our stakes on," and defined the structure of the implementation. But the center then relied on the motivation of practitioners, who volunteered to participate in the training and were promised by their agency leaders to have time to practice in the program after their training was completed (Ogden et al., 2005). Trainees were recruited through the regular child and adolescent services across Norway. There were procedures for the sustained recruitment, training, supervision, and evaluation of practitioners, and also for the implementation, maintenance, and quality assurance of empirically supported programs. Norway has five health regions, and each had implementers from the center who offered training.

Recognizing the concern that a program such as the PMTO model might work in the United States but not in Norway, the center did a small-scale and then a large-scale effectiveness study of the intervention, which replicated the findings in the United States with the intervention (Amlund-Hagen et al., 2011; Ogden and Amlund-Hagen, 2008). The center also conducted a large-scale implementation study of PMTO in order to examine the sustainability of implementation quality and treatment fidelity across three generations of therapists (Forgatch and DeGarmo, 2011) and over time (Hukkelberg and Ogden, 2013). These studies, which used videotaped observations of therapists' interactions with families, found there was high fidelity to the original program with no attenuation of effects, despite heterogeneity among the service providers and the treatment population, even after several successive generations of therapists were trained.

Ten years after starting the implementation of the PMTO in Norway, a randomized study found that there was successful implementation of competency drivers, such as training, supervision, and evaluation of practice, but the implementation was not as successful at integrating the program with the usual services offered in Norway, which tend not to be evidence based (Ogden et al., 2012). "Looking at these outcomes we decided we are going to have to work more with the local organizations in order to blend in the evidence-based practices with the usual services they offer," Ogden said.

When PMTO was first implemented in Norway in 2002, it was provided to 200 families. It now serves around 3,000 parents or families in Norway each year, Ogden reported, adding, "The politicians are very happy about this development." Later during discussion, Lauren Supplee asked if there have been any changes in psychiatric diagnoses, health care costs, incarceration costs, and so on owing to the effects of the PMTO program in Norway. Ogden responded that there have been encouraging signs of such changes, including a drop in law-breaking behavior among youths, but it has not been shown that the program is necessarily the cause of those changes.

When William Beardslee from Boston Children's Hospital and Harvard Medical School asked Ogden to compare the differences between scale implementation that occurs in the Norwegian system versus the American system, he responded, "What impresses me when I come to America are the breakthroughs. You are cutting edge on research, you are developing new programs, new methods, new approaches that are highly impressive, so we come to you for inspiration. But you are not that good at carry-through, so when you're going to implement these programs, models, and approaches you export them to Europe and other countries. I think what is lacking is some kind of implementation infrastructure in the United States so your own children and youth can benefit from your tremendous high-quality research."

Thomas Dishion added during his presentation that Sweden has taken up Family Check-Up quickly and effectively, with providers getting high-fidelity ratings. "I attribute that to a high level of training in the supervisors. Most of the time when I do trainings there, they have all had exposure to many of our programs, such as The Incredible Years®, Triple P, Functional Family Therapy, and so on. They are exposed to a lot of the evidence-based practices," Dishion said.

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6

Scale-Up Challenges

Despite the scale-up successes reported at the workshop and the recent expansion of family-focused prevention programs into new settings, the potential of many evidence-based interventions is often not fully realized, several speakers pointed out. "Frequently when these interventions are implemented, they are not implemented with quality, or that quality is not sustained over time, which is tantamount to having limited impact," Spoth said. He and other participants at the workshop pointed out numerous challenges that need to be addressed when scaling up programs. These challenges include

- Lack of demand for the programs,
- Insufficient organizational capacity,
- Lack of sustainable funding, and
- Factors other than evidence from research that influence decision making around whether or not to implement a particular program.

Scaling up can also be hampered by an over-reliance on program developers who do not have the expertise or time to scale-up and disseminate their programs, and rigid adherence to the programs which may need to be adapted to specific populations or organizations. McCannon identified additional factors that may impede efforts to successfully scale-up a program, including attempting to scale-up too quickly and a lack of explicit goals and objectives for what needs to be accomplished within a specific timeframe. Each of these scale-up challenges is explored in more detail below, with strategies for meeting those challenges appearing in the next chapter.

LACK OF DEMAND

Several participants noted that a major impediment to scale-up of programs is a lack of demand for them by organizations and the communities they aim to help. "We have the medicine, but the patients don't come," Terje Ogden said. He noted that 3.5 percent of children in Norway have a conduct disorder, but only 0.4 percent receive treatment for it (Skogen and Torvik, 2013). The lack of demand for effective family-focused programs can be caused by inadequate marketing and referrals, as well as a lack of a clearinghouse for interventions shown to work.

There is no clear hub for communities to find evidence-based programs and know what it will take to implement them well, said Lauren Supplee, Director of Family Strengthening at the Administration on Children and Families. Kathy Stack of the U.S. Office of Management and Budget pointed out that clearinghouses such as the What Works Clearinghouse provided by the Institute of Education Sciences[1] could be more robust so they show not only what works but what is needed as far as implementation and technical assistance.

MaryBeth Musumeci from Kaiser Commission on Medicaid and the Uninsured noted that Medicaid enables states to offer a wide array of services aimed at improving children's mental, emotional, and behavioral health, and is being expanded in several states with the implementation of the Patient Protection and Affordable Care Act, but a number of children who are eligible for those services are not enrolled in them. "States need to think creatively about how to take up some of these new options," she said.

Insufficient demand for programs or their lack of adoption by organizations, providers, and policy makers can also be caused by a lack of data showing what interventions are needed for specific communities and would be feasible for them to adopt. Often a wide array of programs are available, and it is difficult for states and communities to choose the one best suited to their needs without data that assess those needs, Brian Bumbarger noted. Supplee pointed out that states and communities vary widely in their capacity to collect useful administrative data or access national survey data at a meaningful level so as to assess the need for certain programs. Data on the rates of child abuse or delinquency in specific communities is needed, for example, when considering whether to adopt programs aimed at lowering these rates. Supplee noted that some federally funded programs require states to provide such data before they can receive funding for them. Clarece Holden added that Congress will not fund Substance Abuse and Mental Health Services Administration and other agencies' prevention

[1]Details about the clearinghouse may be found at http://ies.ed.gov/ncee/wwc (accessed July 28, 2014).

programs unless data showing the need for the programs, their effectiveness, and their cost are provided. "So much of building the evidence could be done more cheaply if we can improve access to administrative data and create much more efficient processes for matching individual data across systems," Stack said.

However, as Bumbarger pointed out, there is currently no data infrastructure to help communities understand their needs or to continuously monitor progress and quality improvement. He noted that a prevention planning framework called Communities That Care helps communities collect local data so they can identify and prioritize specific risk and protective factors they might want to target and match those to suitable interventions. But these types of frameworks are only being applied in a few states and communities and need to be scaled up to serve a wider arena, Supplee said. Bumbarger emphasized there is a national need for community-level infrastructure for epidemiological surveillance on an ongoing basis, which was delineated in a recent publication by the Society for Prevention Research (Mrazek et al., 2004).

Once a program has been chosen it has to be marketed so the constituents it targets use the program. The principles of a dissemination support system espoused by Kreuter and Bernhardt (2008) and detailed at the workshop by Supplee are that once users review programs for their feasibility in their communities, they engage experts in design and marketing who can package the program so it is both workable and appealing. Then users should have dissemination agents spread the adoption of the model program by talking to people about why it might work for them. Supplee also suggested there be feedback loops so communities can feed their information back to the developers to help them improve their program designs and efficacy so it reaches a greater population, thereby building demand for them.

Frequently program developers are asked to disseminate to a wider constituency, but they do not have the expertise or capacity to do so on a large scale. They lack the time, workforce, and knowledge to package and support scale-up of their models, Supplee noted. "Developers cannot and should not do it all. We really need to think carefully about a public health infrastructure to support scale-up much like private industry," she emphasized. Bumbarger added, "It's a herculean task and we cannot continue to put all of this responsibility and burden for scale-up at the feet of the developers. It's just not realistic."

INSUFFICIENT ORGANIZATIONAL CAPACITY

Supplee noted that evidence is mounting that the capacity of the servicing agency is key to programs being successful. "A lot of the models

are only as good as the communities and referral systems they are placed in," she said. For example, one study that randomized community-based mental health programs for youth to either intense technical assistance around organizational capacity or control conditions found that outcomes for youth in the programs receiving technical assistance were significantly better (Glisson et al., 2013). Building organizational capacity and ensuring staff are trained in the areas that match the services sought are variables that deserve our attention, she said.

Carolyn Webster-Stratton added that a major barrier to the successful implementation of The Incredible Years® program was inadequate agency readiness, including a lack of short- or long-term goals clearly mapped out, failure to select motivated clinicians with the expertise or training to deliver the program, and inadequate recruitment and engagement with families, including improper handling of the logistics such as day care for the children while the parents are in groups, providing meals, and scheduling of the programs.

LACK OF SUSTAINABLE FUNDING

Many speakers noted that a lack of sustainable funding is a major impediment to scaling up interventions. "Prevention gets done by community organizations and nonprofits and mom and pop organizations, and it is all funded by this patchwork quilt of yard and bake sales, car washes, and temporary grants. Sustainability is really a big challenge to making that leap from knowing what works to having a population-level public health impact," Bumbarger said. Supplee pointed out that grants are often for only 5 years, but it takes almost that long for many organizations to hit their stride, as far as implementation is concerned, and reach a steady state. At that point their funding runs out. Webster-Stratton agreed and pointed out that organizations often are given early grant or foundation funding, "But when the funding ends, the program dies because the funding is not sustained."

Supplee added that often funding is stymied by reimbursement restrictions, such that some but not all of the services a specific program provides will be reimbursed. An example Webster-Stratton gave is that individual therapy may be reimbursable but not group therapy. Kimberly Hoagwood added, "These clinics are in deep trouble in many cases because they are not able to capture the funds for which they are billing." In addition there can be conflict over what the organization wants to provide and what federal and state governments wish to fund, which can complicate implementation, especially since many organizations rely on multiple sources of funding. "One funding stream wants them to focus on birth outcomes, the other funding stream wants to focus on infant health outcomes or maternal health

outcomes and they are feeling very pulled. There is a triangle between the developer, the program administrator, and the funder," Supplee said.

Inadequate funds to provide for clinician training or consultation by accredited mentors of clinicians is also impeding effective implementation, Webster-Stratton emphasized. Funds are also inadequate for providing the full scale of services or frequency of services, delineated in original programs, or the add-on components designed for specific populations, such as families on welfare. Thomas Dishion pointed out that funding and sustainability has been challenging for the Family Check-Up program in all the settings in which it has been applied. "We have a couple agencies within a mile of us who do not have the money for even initial training," he said. Most of the staff are receiving low salaries for attending to large caseloads and have no time for clinical supervision. Supervisors often are not paid to review monitoring videotapes or clinical processes, and are continually stressed by having to find funding. This fosters burnout and high staff turnover, Dishion noted.

Funding can also disappear when administrative or political regimes change or when there are state or nationwide budget crises, several speakers noted. Politically motivated compromises on funding can also hamper the scale-up of programs, David Olds noted. "There is a fundamental question about to what degree evidence-based programs can be built on compromise," he said.

Another major frustration cited by participants is that funding is siloed in various agencies, requiring a cobbling together of funds. Ron Prinz pointed out that the Triple P-Positive Parenting Program can be funded by and applied in a number of different sectors, including health care systems, educational settings, and the juvenile justice system. "You don't want it bottled up or controlled by one sector or agency," he said. But as Hoagwood noted there is no single state or federal agency focused on prevention in children, which has a small piece of many governmental mental health agencies. Supplee added, "We need to think about how we build an implementation infrastructure that is useful across disciplines and contexts. It is very siloed right now. How can we maximize our investments by building capacity across contexts?"

A lack of funding can also be attributable to a lack of priority for child prevention programs combined with limited resources. One study found that states invest in two to six times more programs and services for adults than for children (NRI, 2012), and the current fiscal crisis has dampened funding overall. Hoagwood noted that three-quarters of states are facing severe budget crises and are responding by reducing community mental health services and grants (Lutterman and NASMHPD Research Institute, 2012).

Joe McCannon, consultant to The Bill & Melinda Gates Foundation, emphasized that at the same time it can be counterproductive to obsess

about payment as the sole lever that will fuel implementation. "Don't just look at payment, but also look at recognition, collaboration, transparency, and regulation on a rolling basis and go to where the opportunity lies. You need to take every opportunity that's presented to you and budget for flexibility," he said.

FACTORS INFLUENCING DECISION MAKING

Scientific evidence is just one tool policy makers use when deciding what programs to scale-up and fund. Supplee noted that, besides evidence from research, decision makers use administrative data, anecdote, politics, and other types of information in making their decisions. In the book *Using Evidence: How Research Can Inform Public Services*, Nutley and colleagues (2007) discuss different ways evidence informs social policy and note that the direct use of findings from research (i.e., this one study led to a specific policy) when making policies is rare. More frequently there is indirect use of evidence, such as that gleaned from a body of research including impact, epidemiological, or developmental studies but not one specific study. Nutley and colleagues also note that evidence is sometimes used in a political way such that the policy maker cherry picks findings to support a decision, Supplee said. Stack added that a lot of policy and decision making "gets made based on gut intuition. Every new administration comes in with their ideas on what is going to work," she said.

Emotional as well as logistical factors also influence decision making, both Supplee and McCannon pointed out. For example, an educational administrator may choose a textbook because it has a more appealing cover, even though the evidence base behind another textbook is stronger. McCannon emphasized that an initiative that tries to root itself purely in evidence and reason may fail because it ignores the emotional factors that can enter into decision making that can be more compelling. He gave an example of an initiative to help the homeless that relied on a success story of a homeless man who overcame several obstacles. This story countered policy makers' resistance to fund a program for the homeless, who they tended to view as hopeless cases. "Tying back to these stories and emotions is crucial because it is where we get our energy to instill change," he said.

But there are also rational reasons for not leaning too heavily on evidence from research when making policies. Even well-conducted studies can offer limited evidence because it has not been replicated or validated in a real-world setting, Supplee noted. "We hear from states and communities, 'Is this program going to work for my population?' and we say 'We're not sure,'" she said.

Replication of findings can be difficult to do because programs often evolve by adapting to local circumstances, so a rigid replication study in

which the same exact program as the original is tested may not be appropriate. "The odds are great that if you're going to do a randomized controlled trial of a whole program, then you are going to find no impact because it does not allow you to look at the variations and find the things that work," said Stack. In addition, "There is little empirical knowledge on core components, so it is hard for us to say what can be changed and adapted to specific populations," Supplee said. Factors that moderate impacts are often not known and can pose problems when scaling an intervention in different populations in different communities, she said.

OTHER CHALLENGES

Several participants noted that programs have to adapt and evolve to meet the unique needs of program implementers and a major barrier can be rigid requirements that do not allow the flexibility to mold programs to specific populations and settings. Mr. McCannon, in his presentation on lessons from other fields and sectors on effective spread and scale-up, noted that one lesson learned from efforts to broadly implement practices to improve health care quality is that "Adaptation is what you see in initiatives that are really thriving" (McCannon and Perla, 2009). They are able to agree on the core science and not doing anything that corrupts it, but they make sure they allow for adaptation in every setting, in every clinic, in every environment in which a program is implemented."

Often developers and implementers feel the need to control and maintain fidelity to interventions when they are applied more broadly, but McCannon said, "I think you will find that when you are really successful in a large-scale change initiative, you have lost control of it." He added that when he visited a successful program in Sweden and asked how they were able to expand so effectively they responded, "We're jazz players—we have a core theme, which is the intervention or the practice, but we improvise constantly." McCannon added that "Contamination may not be such a bad thing—you want people to be cross-pollinating and learning from each other."

Sometimes programs are scaled up too quickly before they have been adequately adapted and optimized for specific delivery settings, and before capacity has been built in those settings. Olds noted, "I was convinced by leaders in one state to develop the Nurse–Family Partnership (NFP) there overnight, which I've regretted because the level of local ownership and commitment to developing the program well was never built. The result was that the quality of program implementation in that particular state really suffers." Bumbarger added, "Often as soon as a program demonstrates some effectiveness there is a desire among policy makers, and in some cases practitioners and providers, to get that program out into the

field before it has been optimized, which is not the most efficient way to scale-up."

McCannon suggested what he called "the rule of 5X to 10X, which means that if 10 organizations were involved in the first phase of scale-up, it is appropriate to expand to no more than between 50 and 100 organizations in the next phase. The 5X to 10X rule seems to be a good indicator for those initiatives that do especially well," he said. He added that it was critical that scale-up have specific goals delineated with deadlines for specific benchmarks to be accomplished. A major pitfall is when "you can't say explicitly what you are trying to accomplish and the date by which you are trying to accomplish it," he said. Olds noted that one reason the NFP has been so successful is because it has clearly elucidated its goals, methods, and objectives.

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7

Meeting Scale-Up Challenges

Based on their experiences scaling up programs, workshop participants described several ways to meet scale-up challenges, including ways to

- build demand, capacity, and incentives in communities that are in need of effective programs;
- provide a supportive implementation infrastructure;
- create sustainable funding; and
- adapt and improve programs so they are more applicable and successful.

Scale-up could also be aided by implementation research that reveals what strategies work best.

BUILDING DEMAND

Several participants noted programs tend to be more successful if there is consumer support for them; local, agency, or political champions of them; and if the right program is matched to the right organization.

Consumer Demand

Families are the ultimate consumers of family-centered programs, which will not be successful unless family support is engendered, Ron Prinz said. He suggested sampling the opinions not just of parents who

have participated in programs, but of parents who might participate in the future. "Get them to express what their needs and preferences are, and then build in ways to answer those needs. Parents don't speak with one voice but have multiple perspectives. We want to try to hit as many perspectives as possible," he said. Mary Jane Rotheram-Borus from the University of California, Los Angeles, suggested surveying consumers to also find out what type of program formats they prefer, and Lauren Supplee added, "We need to think about user-centered design and getting the end-user voice from the outset—are they going to be engaged in this model?"

Prinz also suggested having a media communications strategy. Media publicity (e.g., via Web, community posters and billboards, parent and school newsletters) encouraging the parenting practices promoted by programs not only reach potential consumers of them, but reinforce the efforts made by participating parents, as well as validate service providers for their efforts. "It's a way of getting public recognition for the hard work that often burns out practitioners working in isolation," Prinz said. However, Joe McCannon pointed out, "We tend to rely too much on traditional modes of communication. We trust these diffusion mechanisms that actually don't change behavior."

Lisa Hill noted that Invest in Kids built consumer demand for its programs by being messengers for them. Members of this organization literally "hit the road" to meet with various communities scattered in urban and rural areas of Colorado. That effort paid off, she said, as six communities adopted the Nurse–Family Partnership (NFP) program and delivered it to 100 families each. "That only took us 9 months because people were ready and waiting for this program and tremendously excited about the opportunity to bring it to their communities," Hill said. "Building that kind of local ownership of the program is crucial to the sustainability and quality of implementation," David Olds added.

Part of building consumer support for programs is making sure the program fits their needs. When people want to implement The Incredible Years® (IY) program in their communities, they are asked to complete an Incredible Years Agency Readiness Questionnaire, which helps them prioritize their needs and identify their target population to assess if the program is a good match, and if not, other evidence-based programs are suggested. The Readiness Questionnaire also suggests organizations develop parent recruitment and referral strategies.

Both Carolyn Webster-Stratton and Margot Kaplan-Sanoff emphasized the importance of including everyone in the workforce in the decision making about program adoption, and acknowledging the work members of the workforce already do and how the program will build on that work. "Nurses wanted to know what the Healthy Steps Specialist would provide that they don't already provide and we would respond, 'Yes, that's what

you already do, but let's add on to it and make your job easier by having somebody else help with it,'" Kaplan-Sanoff said.

Another advantage of consumer support garnered for the NFP program that Hill cited was that it fostered support at the agency, supervisor, and provider level, ultimately leading to greater sustainability and retention of nursing staff, which led to better client outcomes. Guillermo (Willy) Prado added that showing the high engagement rates for the school-based Familias Unidas programs led to their greater adoption and support by school principals, many of whom were skeptical that parents would participate, given a lack of their participation in other school programs.

To overcome the lack of participation by ethnic minorities in their family-focused program, Norway's Center for Child Behavioral Development hired bilingual "link workers" to contact Somali and Pakistani mothers, who are from the most dominant immigrant groups in Norway. This improved their participation in the parent groups created specifically for ethnic minorities, Terje Ogden noted (Bjørknes et al., 2011, 2012).

Rotheram-Borus suggested building demand for programs for families by offering the programs along with or part of other community programs already in demand, such as martial arts or as part of summer camp or afterschool club offerings. She noted that consumer surveys in Santa Monica indicated that parents wanted coverage on such topics as social media, parenting, sibling fights, and homework. For each of those topic areas, her organization provided expert talks and information websites for parents. "We integrated these educational and evidence-based activities into martial arts, coaching, yoga, divorce, and whatever else the community said they wanted and were willing to pay for," she said. "Our martial arts program was the best parenting program you ever saw and was especially popular among men." Shortened versions of some of these programs were also offered at shopping malls for free with the ability to sign up for more paid interventions.

Program Champions

Several participants said their programs spread successfully due to the demand for them instilled by political champions, who advocated for their adoption or funding. Hill noted that Invest in Kids was able to have the Colorado legislature fund the NFP program because a state senator's mother had benefited from a nurse home visit. This well-respected Republican sponsored a bill that determined how tobacco master settlement agreement funds would be used in the state, and advocated for passage of the Nurse Home Visitor Act that led to $19 million per year being set aside to fund the NFP program.

Kaplan-Sanoff also suggested finding a champion in the organization

that adopts a program. That champion should not only advocate for the program but have the power to make changes in the organization. Prado agreed, noting the importance of building relationships with those that can be champions for a program "not only from the top down but from the bottom up and to engage at all levels in between."

Because the average tenure of school superintendents in the country is about 2 to 3 years, Familias Unidas tried to find champions for their school-based programs not just with school superintendents and directors of mental health counseling for the district, but with the associate superintendents of curriculum and education, and the mental health counselors, social workers and school counselors delivering the services the program offered. "We had a lot of champions so it was an easy sell when a new person came on board," he noted. Webster-Stratton added that it is important to have an internal agency champion or advocate to ensure clinician peer-review support and outside consultations when needed.

Agency, Provider, and Workforce Incentives

Thomas Dishion suggested providing incentives for host agencies and for the leaders that are championing adopting evidence-based practices. "I don't see how it's going to work unless those people are getting the same kind of benefits as the program developers," he said. "One of the problems I've seen is that folks take on this enormous burden of implementing a program—how does it benefit their career?" he asked. Patricia Chamberlain responded that a lot of the benefit "is you get a reputation as an innovator and a mover and a shaker."

But an underlining incentive that Olds noted, and several speakers reiterated, was the urge "to make the world a better place and to do so with a really deep, rigorous approach to figuring out how to spend scarce public resources in a more effective way." McCannon added, "Business as usual, by which I mean people go into work, check their email, and have some meetings, is not what you see in these initiatives that really thrive." Instead, he said, there is an energetic selflessness with the drive coming from feeling like "you are a part of something that will be so great to accomplish that if you do, that achievement will eclipse any sort of issues of personal return or personal credit. So creating a culture that motivates you to do these kinds of extraordinary things has a profoundly different psychology."

BUILDING CAPACITY

Building capacity of program providers involves hiring, training, and coaching staff. Olds pointed out the success of the NFP depended on the thorough and ongoing education and consultation of nurses, which in-

cluded visit-by-visit guidelines and a corresponding information system to monitor ongoing features of the program's implementation. Such a system should not be too burdensome, he added, noting that he ended up scaling back the kind of information nurses were required to enter into the system because information technology placed unrealistic demands on the nurses' time.

Rotheram-Borus emphasized that training models should be different because "I've seen too many people who get the scripts right, but don't have any competence about what the skills are, and if you don't know the skills, you can't apply them to new situations." She noted effective training of paraprofessionals is possible as long as they have good social skills and are good role models to begin with. She reported that Chorpita and Daleiden (2009) have identified about a dozen basic skills (self-monitoring, problem solving, cognitive styles, goal setting, praise rewards, assertiveness, attention, modeling, monitoring, relaxation, response cost, and mirroring) that are needed for 80 percent of all child and adolescent evidence-based interventions. Rotheram-Borus trained the paraprofessionals she employed in all of these skills and monitored over time how often they used the skills.

In addition, Rotheram-Borus suggested paraprofessionals need to be able to carry out five basic functions, including how to

1. Frame an issue.
2. Apply knowledge.
3. Build skills.
4. Remove barriers.
5. Build social support.

She stated these abilities were key because "if you arrive at a home visit and there's a crisis going on, you're not consulting your manual. You have to give people the flexibility, but also the know-how for applying the skills that they use to the situation in the home."

Some participants suggested building capacity at organizations implementing programs by making use of the existing workforce. Rotheram-Borus suggested organizations have not adequately tapped "the many armies of potential prevention promoters—every soccer coach, school safety officer, child classroom aide, swim teacher, music teacher—these could be armies of paraprofessional prevention promoters but I haven't seen any of our intervention programs go towards them." Kaplan-Sanoff said that in Healthy Steps it is preferred that everyone from the receptionists to the physicians attend the training sessions.

The IY program suggests that at least two group leaders or clinicians per group be provided with authorized accredited training to support each other and the next person hired if one of the leaders is replaced. The

organization should also provide staff time for study, preparation, and consultations after the training workshop, although Webster-Stratton noted that often doesn't happen. She pointed out that in addition to the initial training for staff, there needs to be ongoing coaching, consultations, or supervision by accredited coaches, mentors, or trainers. The IY Readiness Questionnaire assesses if there is managerial support and understanding for the program and clinicians on staff with adequate qualifications to provide it. Clinicians without background in cognitive and social learning theory or child development or group work will find themselves "floundering," she said, if they are not given this post training support when providing the IY program. "Many have not been trained in the group model—they're used to seeing families on an individual basis," she said.

Olds concurred: "The staff needs to be well prepared to deliver the program. They need consultation in dealing with challenging situations, because if they don't feel effective, their commitment to their role is going to be undermined, and they'll be more likely to leave. That ongoing education, consultation, and building staff members' efficacy is really central," he said.

Hill noted a study that found teachers were more likely to demonstrate knowledge and skills they had acquired through training programs in the classroom if they received coaching in the classroom rather than only theory and discussion (Joyce and Showers, 2002). "It is critically important for the long term to stay invested in the consultation role to ensure the quality is sustained over time," Hill said.

McCannon suggested what he termed "itinerant coaching" by program developers or implementers. "Having people go from site to site collecting good ideas, problems, and sharing solutions between sites seems to be effective. A field operation that assesses and understands the needs of the organizations that adopt programs and their barriers is the hallmark of these initiatives that really succeed," he said.

PROVIDING A SUPPORTIVE INFRASTRUCTURE

Several speakers indicated the need for a supportive infrastructure in order to ensure successful implementation of evidence-based prevention programs. "Developers cannot and should not do it all, so we really need to think about having a public health infrastructure to support implementation much like private industry," said Supplee. She noted there are a number of different models for providing that infrastructure from state, federal, or program-specific technical assistance "but none of them are necessarily getting scaled up and it's not really clear whether particular models work better for some pathways than others. The bottom line for 'if we fund them, they will multiply' is that obviously funding is necessary but not sufficient for scale," Supplee said.

Brian Bumbarger also emphasized the need for infrastructure support to ensure quality improvement, not just at the individual community and provider level but also at the state level. He noted, "We like to think we're all in the business of better outcomes for families, but we have to recognize the reality that practitioners, policy makers, and researchers have different needs, and it is the role of the intermediary organization to accept responsibility for solving whatever problems that occur or that may interfere with the effective scale-up of these interventions." He added, "If the policy makers aren't really talking to the practitioners but are just giving out grants and monitoring contract compliance, they don't realize all of the troubles occurring on the ground. We wanted to be the ones responsible for carrying those messages back and forth."

ADAPTING AND IMPROVING PROGRAMS

A major discussion point at the workshop was how to adapt programs to suit the specific needs of the communities that adopt them, while maintaining fidelity to the program so its effectiveness is not undermined. This is less an issue if communities choose their programs carefully so they adopt ones that best meet the needs of their population, Supplee noted. Nonetheless, some experts in the field believe adopters might have to tailor even well-suited programs to fit their budget and priorities.

Webster-Stratton emphasized the importance of adopters following program protocols, but she recognized that programs also need ongoing remodeling based on feedback, research, and the setting in which they are delivered. She noted that some providers may only follow "the minimum dosage," in an attempt to maintain fidelity to their population or budgetary constraints. However, she also pointed out that research on the IY program found that the longer the dosage, the greater the effects. This program does have flexibility in that parents identify their own goals and learn a set of principles they can apply to achieve these goals. For example, if parents want help dealing with their children in grocery stores, a vignette related to that will be part of the program. "I think that's why it works so well cross-culturally," she said. She added, "There are a set of principles embedded within the program that haven't changed since 1979 when I did my first study."

Olds noted there is an inherent tension between the core model and new augmentations or innovations that get introduced when it is applied in the real world. For example, when the NFP was first tested and introduced, it used a procedure for observing and promoting parents care of their children in the context of home visits. But that method ended up being too cumbersome and hard for nurses to use. So Olds and his colleagues developed a separate procedure and a streamlined clinical tool that would align

observations with nurses' way of interacting with families in the home. "We didn't put that to a separate test in a randomized controlled trial. We just started using it because the new method was clearly superior," he said, adding, "But this tension between what needs to be tested and what can simply be improved we collectively need to address with principles that would guide our thinking about how to do that well."

Prinz pointed out that programs tend to evolve over time into different formats as well as in response to the feedback they receive from their adopters. "You can't say, 'Here are the rules for doing the intervention, and it will functionally not change,'" he said, noting that the online format of the Triple P-Positive Parenting Program, for example, was not envisioned 20 years ago when the program was first developed. "The Triple P that was available 5 years ago is much different than what's available now. It's constantly improving, adding evidence and changing as it grows. We need a system that's built into the program that can absorb change," Prinz said.

Dishion added, "It's an iterative process. The more we have contact with our clients, which are the communities, the more they're going to shape us, in terms of the kinds of interventions we'll be developing." He noted the general strategy of a translational process is that interventions be revised for public health service settings, and after they have been tested and tailored for real-world conditions, the developmental model the intervention is based on may be revised. Dishion said this strategy has worked for the Family Check-Up program, whose application in American Indian communities prompted its developers to add historical trauma to the original model's list of factors influencing families (see Figure 7-1).

Olds echoed Dishion, stating, "We believe that the NFP is a work in progress, not a final product. There are subpopulations for whom the program is not working and ways in which the program is not working. We need to figure out how to do a better job, and that commitment to rigorous development of innovations in the model and replication is really part of what we're all about today."

Bumbarger offered that "quality and fidelity often work at cross purposes. The greater scale you go to, the harder it is to maintain quality and fidelity." In an ideal world there is an intervention redesign component in which evidence-based interventions would be optimized and redesigned, hopefully with the input of communities and end users after effectiveness testing and before going to scale. But in reality, Bumbarger noted, communities perceive evidence-based interventions as unnecessarily complicated, and "they come to ask us legitimately, 'Is all this really necessary? Do I have to do all 18 lessons?' We can't empirically answer that question so there's an imbalance between the things we're trying to get communities to do and the things they've naturally been attracted to."

Kaplan-Sanoff suggested balancing the requirements of a program that

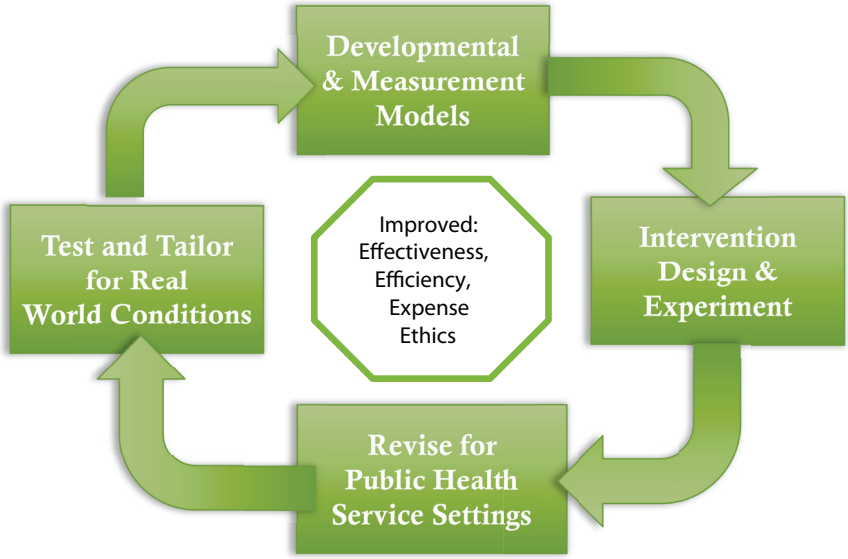

FIGURE 7-1 Family Check-Up model: An iterative translational research strategy. SOURCE: Adapted from Dishion and Patterson, 1999.

will be applied in a pediatric setting with flexibility, pointing out that "pediatric practices do not want to be jumping through hoops of fire. They already do that all the time and don't want a new program to make them do that." McCannon emphasized that "when we're talking about persuading people across boundaries and multiple organizations, we have less control and so we have to invite more of their own energy and ideas and will in order to engage them."

Rotheram-Borus noted that when the Centers for Disease Control and Prevention nationally diffused an evidenced-based program for HIV prevention to 2,500 agencies, half of the people they trained never implemented the program, and of the 50 percent who did implement, only 20 percent did so with fidelity. The main reasons she gave for that lack of fidelity was that the program was not tailored enough to the specific populations in which they were implemented.

When Norway adopted the Parent Management Training-Oregon (PMTO) model, it adapted it substantially, Ogden reported. This program was originally designed to have 20 to 50 parent sessions and is usually delivered to individual families, but it also has modules for school con-

sultation. Recognizing that many parents may manage with fewer sessions, Norway created a program built on the same principles as PMTO (Solholm et al., 2013) but divided it into brief individual parent sessions and social skill training for children, parent groups (Kjøbli et al., 2012), and school consultations. The program was also implemented in a variety of primary care settings, including public child health clinics, schools, and kindergartens, with a low threshold for intake, and is composed of fewer sessions with lower intensity and shorter duration than full-scale PMTO, Ogden reported. Within this program, the full-scale PMTO treatment is still offered, but only as a backup for those families that need it. In addition, the Norway implementation developed training and intervention manuals and a description of the core intervention components. Six months after receiving the brief parent training, a study found the beneficial outcomes were sustained on most child and parent variables as they are for the more extensive PMTO (Kjøbli and Bjørnebekk, 2013).

Dishion said that a study he did on the implementation of his Family Check-Up program found that the intervention's effects were completely mediated by the fidelity of the therapist's adherence. "That makes it complicated because you can't just expect effects, you need to have effective therapists. I can see that many of our therapists, who may not have formal training, are quite skilled at working with parents. So we're looking at first doing the handshake, then doing the training, fidelity, coaching, monitoring and then certification," he said. "The idea is you get people to engage with the service and then fidelity will follow. If we hit them hard on fidelity right away, we may lose them."

Ogden noted that he tested the notion that all that is needed for a program's results is a therapeutic alliance. Fidelity, as rated by coders, and alliance, as rated by parents, both predicted parent-reported problem behavior, but whereas fidelity predicted change in problem behavior, alliance was related to *less* change in problem behaviors (Hukkelberg and Ogden, 2013). "It seems that when it comes to parenting programs, particularly for antisocial behavior, it is important to have high treatment integrity or fidelity, and the therapeutic alliance may not be enough in order to secure the positive outcomes," he said. Supplee added that a 2009 study (Schoenwald et al., 2009) found the quality of supervision provided to the therapist predicted youth outcomes more so than the therapist's interaction with the youth.

Stephanie Lee also cautioned against drifting too much from program protocols, noting a study of the effects of the Functional Family Therapy being applied to a population of juveniles in the juvenile justice system in Washington State found the outcomes were not as expected, with no difference between the children who had gone through the therapy program and those who had not. Further investigation revealed that the therapists were not equally adherent to the program model. Consequently, the juvenile jus-

tice system there set up a fidelity monitoring system to supervise and train providers, and if they do not adhere to the protocol they are retrained or moved to a different area of work, Lee reported.

MONITORING PROGRAMS

Even programs that have been adapted still have to be monitored for their quality and effectiveness, several speakers pointed out. Webster-Stratton suggested that staff's individual and group sessions with parents be videotaped and reviewed by accredited coaches, mentors, and trainers, and based on those reviews, feedback be given regularly to clinicians so they can improve their performance. The IY provides a rigorous accreditation process that includes review of protocols, attendance at workshops, peer and self-evaluation, consumer satisfaction evaluations, and review of the DVDs of their sessions.

In addition, Webster-Stratton suggested having clinician peer-support networks within the organizations delivering the intervention. "Group leaders or clinicians should videotape their sessions right from the start and then meet together to look at their group session and give feedback to each other," Webster-Stratton said. The IY program provides standardized group process checklists for that peer review and recommends pairing more experienced clinicians with new clinicians. Agency administrators should also be promoting accreditation of the program, which provides training for these administrators. "One of the reasons our program has had such good replication by others is largely due to the accreditation process, as well as the detailed manuals, authorized trainings, and well-defined protocols," Webster-Stratton said.

Chamberlain said technology, including video uploads of group sessions that can be used to rate fidelity, has helped immensely with the monitoring of programs as they are adopted and implemented by other organizations. "We can give a consultation using the clips of the videos, and in years to come we're going to find that we're going to be more able to use this mechanism to help us have better implemented interventions," she said.

Prado seconded that notion, pointing out that to provide feedback to the social workers or school counselors who conduct parent sessions in the Familias Unidas program, sessions are videotaped by a rater who watches these 2-hour sessions two or three times. Recognizing that monitoring fidelity can sometimes be more expensive to carry out than the delivery of the intervention itself, he and his colleagues developed a semi-automated system for monitoring fidelity ratings that uses computational linguistics and speech recognition software to rate videotapes of sessions. There is about an 80 percent concordance between human and machine ratings using this system, Prado reported. "It's certainly something to consider as

we try to begin to take this program into schools where resources are very limited," he said.

Dishion added, "We need to set up systems where the clients themselves can monitor their outcomes, and digital technology is a great tool for that." He noted that the developers of Family Check-Up are trying to develop an app so that after the initial visit with a clinician, parents automatically get texted once or twice a week with five quick questions about how they and their children are doing. Answers to those questions appear on a website where the clinician can watch the progress and their outcomes.

McCannon suggested that rather than evaluating how well organizations rigidly adhere to a program's protocol, instead there should be daily data that indicate how well the organization is doing at meeting their goals. He suggested having dashboards that indicate those daily objectives and how much of them have been met, as well as a daily rhythm of reviewing and responding to the data. "We need to hold people accountable for meeting data goals week in and week out," he said.

BUILDING SUSTAINABLE FUNDING

Programs will not be implemented properly and maintained in the long term unless they acquire sustainable funding. Several sources for that funding were discussed at the workshop, including service grants, tiered evidence-based funding and Pay for Success grants, public–private partnerships, braided funding from different agencies, and new reimbursement options under the Patient Protection and Affordable Care Act (ACA).

Supplee suggested there be funding for the infrastructure required to implement an intervention. She noted that encouragingly, there has been a gradual increase in grants that are allowing and paying for planning periods of 6 months to 1 year and then requiring implementation plans that have to be approved before the services can be provided, as well as funding that can be spent on data systems, continuous quality improvement, and infrastructure costs, which some research suggests is about 30 percent of ongoing costs. "This is not a one-time investment—30 percent of the grant might have to go to infrastructure," she stated.

Kathryn Stack reported on new federal funding opportunities aimed at furthering evidence-based practices. These grants include tiered support programs that financially reward applicants and grantees for reviewing and using existing research on what works and how to implement with fidelity, as well as for conducting or participating in rigorous evaluations to build evidence on what works. The funding programs support a hierarchy of evidence-building studies, including those on the bottom tier that are designed to show proof of concept, those in the middle tier whose goal is to validate previous findings, and a third tier whose objective is to scale-

up effective practices. "The theory is that not all of these interventions are going to be successful, but you want to give them a chance, and if they do well they get to move up this pipeline," Stack said. Under this tiered model, the biggest grants are given for scale-up, medium-sized grants are for validation, with the smallest grants given for proof-of-concept studies.

Pay for Success is another evidence-building funding strategy in which private investors pay for the working capital to start evidence-based prevention services and the government provides a contract that specifies it will pay these private investors back after a certain time period if they achieve better outcomes for individuals and savings for the government. This type of funding has an evaluation built into it. "The theory is you are providing all the incentives for people to drive towards what works, but in this case there's the flexibility not to necessarily adhere to the model if you can find a more cost-effective way of achieving the outcomes. So there's a built-in incentive for innovation," Stack noted.

Medicaid also offers several funding streams for children's behavioral health that providers could tap into to support evidence-based programs, MaryBeth Musumeci reported. She noted that 10 percent of children who receive Medicaid are using behavioral health services and/or psychotropic medication. Given that 20 percent of children in the United States are reported to need behavioral health services, there probably is an underuse of that service in children supported by Medicaid, she said.

The ACA expanded Medicaid eligibility for children by increasing the household income limits to 138 percent of the federal poverty level ($27,310 for a family of 3 in 2014). Medicaid's Early Periodic Screening, Diagnostic, and Treatment Services (EPSDT) benefit for children up to age 21 includes mandatory coverage of any services necessary to correct or ameliorate physical or mental health conditions in children. "So kids have access to all these services even if the states do not offer them to adults on Medicaid," Musumeci said. Some states also provide coverage for behavioral health services, which can include child mental health services, such as individual and group therapy, crisis intervention, and medication management, among others. "What's appealing about using this as a funding source for behavioral health services is that these services can be provided at home or in the community," Musumeci noted.

Since the Deficit Reduction Act of 2005, there has been a Medicaid option for states to offer home- and community-based services as part of their state benefits package instead of through a waiver (§ 1915(i)). Some states have implemented this option, and the ACA amended it by increasing the qualifying income limit. Unlike services under a waiver, § 1915(i) home- and community-based services can be offered more as preventive care because those beneficiaries do not need to meet an institutional level

of care; instead they must meet functional needs-based criteria that are less stringent than those required to qualify for institutional care.

The ACA also added the Medicaid health homes state plan option, which some states have used to help support health homes targeted to children and youth with serious and persistent mental health conditions. A health home provides care coordination and case management services. "What's enticing for states here is that there's 90 percent enhanced matched federal funding for the first 2 years that the state is providing health home services," Musumeci pointed out. A few speakers noted that Maternal, Infant, and Early Childhood Home Visiting (MIECHV) funding can be used to support programs, such as the NFP, that have home visits as a major component.

Some participants suggested creative business models to support scaled implementation of their programs. Autism Navigator® is being distributed by a for-profit company, which offers the various online tools they have built for free, but charges for certification courses for professionals. All of the profits of the company will roll back into development, Amy Wetherby reported, noting that this business plan is expected to enable the scalability and sustainability of Autism Navigator®. Richard Spoth suggested the development of innovative funding mechanisms, including the creation of private–public partnerships, to support programs and braiding of funding from multiple sources. Rotherham-Borus recommended designing programs to fit existing funding streams.

OVERCOMING ORGANIZATIONAL SILOS

Several participants noted that many prevention interventions for children or families have results that spill over into a number of different domains because, as Spoth pointed out, they target similar, common risk and preventive factors. For example, a positive parenting intervention can improve children's educational achievements as well as decrease their rates of juvenile delinquency. But support for all the outcomes a single intervention can achieve is often provided by different state or federal agencies. "We all complain that you have these sort of rigid, straightjacket programs that require or have certain kinds of eligibility criteria and allowable activities, and sometimes in a community it can be very hard to weave those together," said Stack.

Spoth called for having more state and national systems that integrate their prevention efforts, which he said would be a key action step to take in the future. He also suggested planning and organizing for infrastructure development, including interagency collaboration that could be tied to the ACA and build on the National Prevention Strategy (HHS, 2014) and the findings and recommendations from the National Research Council and

Institute of Medicine report *Preventing Mental, Emotional, and Behavioral Disorders Among Young People: Progress and Possibilities* (NRC and IOM, 2009), by focusing on scaling systems for evidence-based interventions (Spoth et al., 2013). He also suggested developing a common conceptual framework for addressing multiple behavioral health outcomes, such as common risk and protective factors that are relevant across federal stakeholders. "It is critical to keep a clear focus on that outcome we desire, that population impact—and recognize the complexity of all these barriers," he said.

The new pilot authority for Performance Partnerships for Disconnected Youth, included in the 2014 appropriations act for the Departments of Labor, Health and Human Services, and Education, should allow organizations to come out of their silos and collaborate more with one another, Stack reported. This act authorizes up to 10 pilots serving disconnected youth that allow state, local, and tribal governments to blend funds and receive waivers of statutory provisions to implement a cross-program strategy to improve education, employment, and other outcomes. The U.S. Office of Management and Budget in collaboration with relevant federal agencies is issuing a discussion draft on how it will implement the Performance Partnerships. "We want to get examples of where communities might want to integrate services, such as marrying a substance abuse program with an education program and workforce program to get better results in a particular population," Stack said. She added, "We are trying to build partnerships and infrastructure to support a completely different way of doing business—it is really an opportunity to find a target population and test this notion that we can provide a much more holistic set of services to achieve greater impact."

Convincing economic analyses can also prompt agencies to overcome siloing, Lee reported. For example, after the Washington State Institute for Public Policy provided different cost–benefit scenarios for various programs seeking legislative funding, the state scaled up funding for early education and the NFP while deciding not to fund a new prison forecasted to be needed by 2020. The analysis the institute provided showed that with the right prevention interventions, fewer rather than more prison beds would be needed. "People started thinking outside of the silo that intervening in criminal justice leads to better outcomes in criminal justice and opened up their minds toward thinking about those long-term prevention outcomes and their impacts on criminal justice," Lee said. She added that programs that are attractive to legislatures are often those that either target multiple populations or those that have multiple outcomes across sectors. "The scope is the most important thing to consider," she said.

OTHER SCALE-UP STRATEGIES

McCannon described more general scale strategies and principles he has found worked for other organizations. He pointed out that initiatives that do especially well "are not deeply invested in exhortation or just pushing an idea but rather removing the barriers that are holding people back from adopting new practices." He noted there are two kinds of barriers, the most obvious being operational. But he emphasized also addressing the psychological barriers. "When someone is asked to make a change, usually their reluctance to do so is less about what you're asking them to do, and more about something they are holding onto that's important to them and they feel they would have to give up to do the new thing. So thinking explicitly about those things they're holding onto is crucially important," he said.

McCannon also suggested designing programs for scale in addition to one-time success, noting that one wants to ensure that the prototype of a program works, "but we can get to a point where we've designed something so top-heavy that it's difficult to scale it, whereas design for scale thinks about scale-up factors in a systematic way and explores how to make each of those as lean as possible," he said. These scale-up factors include human resources, financial resources, physical space, technology, oversight structures or systems, delivery requirements, and supplies needed to run the program. He suggested planning for these factors during the design phase, while recognizing that they can be adapted as the program is disseminated. "You can continue to toggle and tweak these as you expand all these different dimensions," McCannon said.

Finally, McCannon suggested giving people the opportunity to try and fail and to waste no will, which means "anytime someone comes with an idea you say 'yes' and you work with them on adapting it to make it work in their setting," McCannon said. Another meeting participant added, "We have so much we can learn from failure. At the systems level in our work we have more latitude for allowing for failure and it has fueled some of the innovation and solved some of our problems at the program level." McCannon responded, "It is another leadership job. You have to applaud people who are able to talk about failure and encourage those who are afraid to share it."

However, Dishion noted that funding is often predicated on showing an intervention or program that works and not one that fails. "We're highly reinforced for publishing what works, and our careers are punished for showing an intervention that didn't work. We need to lose that paradigm and get the word out when we fail so others can benefit and do a better job of specifying the conditions under which we succeed or fail." McCannon concurred, saying, "There is no failure, there is just learning. If that were the approach that we took, then any paper you wrote to summarize a study

would point out what we learned, including what didn't work, but the promising components of what didn't work. We need to move away from binary study designs to those that are more nuanced and look at the texture of what's happening in different environments and settings."

RESEARCHING IMPLEMENTATION STRATEGIES

Several participants noted the lack of evidence-based implementation strategies and suggested more research be done in this area. Specifically, Supplee suggested gathering more empirical evidence for the

- Importance of capacity building,
- Effectiveness across different populations and contexts,
- Workforce quality needed to implement particular interventions with fidelity,
- Moderating factors for quality implementation at scale overall, and
- Economic costs and benefits of implementing at scale.

"As a field, we have some empirical evidence about factors affecting implementation, but not a lot, so the call for implementation science has become very loud," she said, adding that the need for such research be made apparent to decision makers and policy makers. Dr. Kimberly Hoagwood added that although state mental health agencies collect data, they are not systematically related to the implementation of programs. In addition, only a small percentage of state agencies fund a research center or institute, collaborate with one, or produce a directory of research or evaluation findings related to implementation (NRI, 2012). "In terms of understanding the implementation process itself, states typically do not see that as something they can or should do. Where is the support for this going to come from so we can learn from these rollouts?" Hoagwood asked.

McCannon noted that traditionally researchers are not rewarded academically for doing implementation and dissemination research, and breakthroughs are more valuable than successful implementation. But some universities are changing their policies about this. Johns Hopkins University, for example, is considering giving equal points in the academic advancement system for running successful implementation or scaling projects as one would acquire for publication of a breakthrough in a top-tier journal. "These are meaningful incentives to look at," he said.

An example of implementation research Chamberlain presented at the workshop found an organization's pre-implementation behavior before adopting a foster care treatment program predicted successful startup of the programs as well as its sustainability over time. Such pre-implementation behavior included measures of how long it took organizations to achieve

FIGURE 7-2 Stages of implementation completion.
SOURCE: Chamberlain et al., 2011.

each of the pre-implementation steps outlined in Figure 7-2. Researchers are currently conducting a study to see if these measures are predictive of successful implementation of other child mental health treatments.

Supplee gave another example of ground-breaking research on implementation called MIHOPE. This study, which stands for Mother and Infant Home Visiting Program Evaluation, is a large-scale random assignment evaluation of home visiting programs funded by MIECHV. The evaluation is expected to include about 85 program sites and 5,100 families clustered in about 12 states nationwide and will focus on those models serving expectant families and infants up to 6 months of age at enrollment (MIHOPE, 2014). The evaluation includes assessment of how baseline family and staff attributes and implementation strategies influence outcomes.

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8

Sum Up and Way Forward

At the end of the workshop, those who moderated the panels as well as Lauren Supplee summarized important take-home points from the presentations and discussions that suggest a way forward in scaling up child prevention programs. David Hawkins began this session by noting the importance of creating organizational capacity, desire, and the infrastructure necessary for dissemination and implementation. He reiterated the need to create demand for programs by creating motivating stories about them and prompting what Joe McCannon called a pull for them rather than a push. Hawkins also emphasized monitoring implementation, but at the same time not being excessively rigorous and focusing more on achieving objectives than strictly adhering to protocols. He suggested being more forthcoming about revealing what was tried and did not work, rather than only highlighting successes.

Pat Shea from the National Association of State Mental Health Program Directors emphasized the importance of cross-sector collaboration at the federal level and supporting programs focused on very early childhood development because they are wise investments. She was also encouraged to hear about intermediary organizations that support adoption and implementation of programs and "act as a bridge between the research base and the real world," attending to all of the local factors that affect successful scaling up of a program. "I wished I had a cloning machine to enable more states to have access to these types of intermediary support organizations," Shea said. "The key takeaway for policy makers and funders is the importance not only of investing in programs but also investing in the process of implementation," she added.

Mary Ann McCabe from the George Washington University School of Medicine noted the importance of recognizing the need to deliver evidence-based programs in doctors' offices, schools, and other settings where children and families are served. She said, "There is some appetite for family-focused prevention programs in innovative settings, especially because they are nonstigmatizing, and that is something we can really capitalize on going forward." She added that designing programs for the funding streams that can support them in these emerging settings will help spread programs there, and suggested informing implementers of health care reform about how to fund prevention programs in health care settings as well as fund the workforce and training for them. She also emphasized the opportunity to capitalize on new digital technologies, and suggested mitigating against the risks of increasing disparities with increasing use of technology.

Ruth Perou of the Centers for Disease Control and Prevention noted the importance of bringing multiple sectors to the table, including business leaders and key stakeholders, to move forward with scale-up. She also encouraged the sharing of tools, strategies, and technologies for scale-up, as well as cost–benefit analyses that motivate legislators to fund such scale-up. "We need to start to learn from each other and from others outside our field. We need to throw a much wider net if we are going to be innovative," she said.

William Beardslee stated that he agreed with Norway's dissemination strategy of training master trainers rather than developing a systems-wide approach for all training, and suggested considering this as an option in programs disseminated in the United States. He noted the attention that must be paid to cultural humility and competence. "Interventions typically are devised in one culture and one language, but offered to people in many different cultures. We need to understand that process more fully as that has been a part of these successful systems-wide approaches," he said. Beardslee added, "Along with equal access and equity and narrowing disparities, we want to achieve genuine partnerships with families. That's what characterizes interventions that last—families come together to learn skills, partner with their coaches and teachers, and then they carry them on. Paying attention to how to develop respectful partnerships is really important."

Supplee noted the diversity of stakeholders, who all have different goals and roles in the system. All are needed for success, but they are not all working together. "How do we start working together?" she asked. She emphasized that not only do public officials need to be more accountable for the investment of public dollars in evidence-based programs, but there needs to be equal accountability for outcomes. "We're going for public health outcomes, not scaling evidence-based programs. We want to pick careful outcomes that we can measure, because it can go really wrong very

quickly," Supplee emphasized. She also pointed out the importance of differentiating between scaling programs, scaling infrastructure, and scaling fiscal capacity and workforce.

Supplee noted the broad educational spectrum of workers delivering programs, from paraprofessionals with a high school diploma to clinicians with Ph.D.s, and what might be successful with those with the highest level of education may not be so successful with those at the lower end of the educational spectrum. She encouraged building capacity in provider organizations and called for "leaving no community behind. Some of our neediest communities with our neediest families don't have that capacity and infrastructure necessary to support quality implementation of evidence-based programs. We need to think about how we can build that capacity so we can get these evidence-based programs into these communities." Supplee also called for holding technical assistance providers to the same standards as that for evidence-based programs. "We know a lot about adult learning. Let's use it," she said.

In addition, Supplee suggested models, such as described by Collins and colleagues (Collins, 2013; Collins et al., 2005), calling for "designing efficient, effective programs to get the outcomes we want, rather than throwing the entire kitchen sink at everything. The reason why this is really critical is because I see on-the-ground programs put so much time and effort into trying to achieve fidelity on things that might not even draw outcomes." Identifying gaps and trying to fill them with the help of intermediary agencies is also important, she said, but those are not available in every state or discipline. She emphasized the importance of doing implementation science and studying programs at scale, and added that randomized controlled trials may not be the best method to use when conducting this research; there are other rigorous methods that researchers can apply in their studies as well as real-time pivotal program evaluations that can provide the answers needed.

In brief, individual workshop participants described the following strategies to facilitate the scale-up of family-focused preventive programs:

- Create organizational capacity, demand, and infrastructure necessary for dissemination and implementation. (Hawkins)
- Monitor implementation while allowing some flexibility to achieve objectives, rather than strictly adhering to implementation protocols. (Hawkins)
- Utilize cross-sector collaboration as well as intermediary organizations that support adoption and implementation of programs. (Shea)
- Support programs focused on very early childhood because of potential for greater return on investment. (Shea)

- Deliver evidence-based programs in a range of settings where children and families receive services, and design programs for the funding streams that can support them in these settings. (McCabe)
- Share tools, strategies, and technologies for scale-up, as well as cost–benefit analyses that motivate legislators to fund scale-up. (Perou)
- Capitalize on new digital technologies while mitigating the risks of increasing disparities with increasing use of technology. (McCabe)
- Design programs that are culturally relevant and that involve partnerships with families. (Beardslee)
- Hold public officials accountable for investment of public dollars in evidence-based programs as well as for program outcomes, and select program outcomes that can be measured. (Supplee)
- Build capacity for quality implementation of programs in provider organizations that serve families who are most in need of such programs. (Supplee)
- Evaluate programs at scale. (Supplee)

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A

Workshop Agenda

Strategies for Scaling Tested and Effective Family-Focused Preventive Interventions to Promote Children's Cognitive, Affective, and Behavioral Health: A Workshop

Hosted by the IOM-NRC Forum on Promoting Children's Cognitive, Affective, and Behavioral Health

April 1-2, 2014

Lecture Room
National Academy of Sciences Building
2101 Constitution Ave., NW, Washington, DC

AGENDA

Research has advanced understanding of the risk, promotive, and protective factors within families that influence children's health and well-being. Science consistently indicates the important role of families in shaping child and adolescent health outcomes through genetics, behavior, environment, and their inherent dynamic interactions. Early childhood conditions in the home, mediated by caregiver behaviors such as nutrition, physical activity, communication styles, sleep, and stress management, shape health and well-being across the life course. Families can create resilience or can increase risk for later negative cognitive, affective, and behavioral outcomes.

Objective: This workshop will address the successes and challenges of scaling family-focused interventions to the real world for promoting children's cognitive, affective, and behavioral health. A range of settings involved in preventive family-focused interventions will be highlighted, including primary care settings, schools, and homes. The workshop will explore issues of funding, such as the role of the Patient Protection and

Affordable Care Act (ACA), in promoting family-focused prevention interventions. Collectively, this knowledge will be used to explore new and innovative ways to broaden the reach and demand for effective programs and to generate alternative paradigms for strengthening families.

Day 1: Tuesday, April 1, 2014

8:15 a.m. **Welcome and Presentation of Forum Mission**

William Beardslee, M.D., Gardner/Monks Professor of Child Psychiatry, Harvard Medical School, Forum Co-Chair

C. Hendricks Brown, Ph.D., Professor, Departments of Psychiatry, Behavioral Sciences, and Preventive Medicine, Northwestern University, Forum Co-Chair

8:25 a.m. **Workshop Overview**

J. David Hawkins, Ph.D., Social Work Endowed Professor of Prevention, University of Washington School of Social Work, Planning Committee Chair

8:30 a.m. **Keynote Address: The House That Evidence-Based Practice Built: Moving from Program Development to Real-World Outcomes**

Lauren Supplee, Ph.D., Director, Division of Family Strengthening, Administration on Children and Families, U.S. Department of Health and Human Services, Planning Committee

9:00 a.m. **Panel I: Developer Perspectives of Successes and Challenges in Scaling Family-Focused Preventive Interventions**

This panel will discuss family-focused interventions that have demonstrated effectiveness in practice and that have been brought to scale. Panelists will offer the developer's perspective of efficacious programs across different sectors (e.g., homes, child welfare settings) and reflect on what has made their application to scale successful, as well as what challenges they faced. Speakers will target programs within specific time periods in development that span prenatal development to early adulthood.

Moderator: J. David Hawkins, Ph.D., Social Work Endowed Professor of Prevention, University of Washington School of Social Work, Planning Committee Chair

David L. Olds, Ph.D., Professor of Pediatrics and Director, Prevention Research Center for Family and Child Health, Department of Pediatrics, University of Colorado at Denver (20 min)

Carolyn Webster-Stratton, Ph.D., M.S., M.P.H., Professor Emeritus, University of Washington; Developer, The Incredible Years® Programs (20 min)

Ron Prinz, Ph.D., Professor and Director, Parenting & Family Research Center, University of South Carolina (20 min)

Patricia Chamberlain, Ph.D., Research Scientist, Oregon Social Learning Center (20 min)

DISCUSSION

10:45 a.m. **BREAK**

11:00 a.m. **Panel II: State and Federal Perspectives of Successes and Challenges in Scaling Family-Focused Preventive Interventions**

This panel will continue the discussion of the themes explored in Panel I, but will broaden the perspective to include those who enable the programs to reach end users. Panelists will provide both the state and federal viewpoint.

Moderator: Pat Shea, M.S.W., M.A., Deputy Director, Office of Technical Assistance, National Association of State Mental Health Program Directors, Planning Committee

Lisa Hill, Executive Director, Invest in Kids (Colorado) (20 min)

Brian Bumbarger, Ph.D., Assistant Director for Knowledge Translation and Dissemination, Prevention Research Center, Pennsylvania State University (20 min)

Kimberly Hoagwood, Ph.D., Professor and Vice Chair for Research, Department of Child and Adolescent Psychiatry, New York University School of Medicine (20 min)

Clarese Holden, Ph.D., Branch Chief, Division of State Programs, Center for Substance Abuse Prevention, Substance Abuse and Mental Health Services Administration (20 min)

DISCUSSION

12:45 p.m. **LUNCH**

1:30 p.m. **Panel III: Extending and Disseminating Family-Focused Preventive Interventions**

This panel will illustrate emerging settings where family-focused preventive interventions are being provided, including primary care settings and schools, and will discuss opportunities and challenges going forward. Programs that will be described target infancy through childhood and early adolescence.

Moderator: Mary Ann McCabe, Ph.D., Associate Clinical Professor of Pediatrics, George Washington University School of Medicine, Planning Committee

Margot Kaplan-Sanoff, Ed.D., Associate Professor of Pediatrics, Boston Medical Center, National Director, Healthy Steps, Boston University School of Medicine (20 min)

Ellen C. Perrin, M.D., Research Director, Division of Developmental-Behavioral Pediatrics, Floating Hospital for Children, Tufts Medical Center; Professor of Pediatrics, Tufts Medical School (20 min)

Guillermo ("Willy") Prado, Ph.D., Professor and Director, Division of Prevention Science and Community Health, Department of Public Health Sciences, University of Miami Miller School of Medicine (20 min)

Thomas J. Dishion, Ph.D., Director, Prevention Research Center; Professor, Psychology Arizona State University (20 min)

DISCUSSION

3:15 p.m. **BREAK**

3:30 p.m. **Panel IV: Financing and Infrastructure**

This panel will discuss themes related to financing and infrastructure to support scaling of family-focused preventive interventions. Topics of discussion will include the results of benefit–cost analyses in Washington State, financing of behavioral health interventions through Medicaid, the current administration's interest in supporting scaling of evidence-based initiatives through the tiered evidence structure and Pay for Success, and how the ACA will affect primary care to support implementation of family-focused interventions.

Moderator: Ruth Perou, Ph.D., Child Development Studies Team Leader, National Center on Birth Defects and Developmental Disabilities, Centers for Disease Control and Prevention, Planning Committee

Stephanie Lee, M.A., Senior Research Associate, Washington State Institute for Public Policy (20 min)

Kathryn B. Stack, Advisor for Evidence-Based Innovation, U.S. Office of Management and Budget (20 min)

MaryBeth Musumeci, J.D., Associate Director, Kaiser Commission on Medicaid and the Uninsured (20 min)

DISCUSSION

4:55 p.m. **Closing Remarks**

J. David Hawkins, Ph.D., Social Work Endowed Professor of Prevention, University of Washington School of Social Work, Planning Committee Chair

5:00 p.m. **Adjourn for Day**

Day 2: Wednesday, April 2, 2014

8:30 a.m. **Welcome and Recap of Day 1**

J. David Hawkins, Ph.D., Social Work Endowed Professor of Prevention, University of Washington School of Social Work, Planning Committee Chair

8:45 a.m. **Keynote Address**

Amy Wetherby, Ph.D., Distinguished Research Professor and L.L. Schendel Professor of Communication Disorders, Department of Clinical Sciences, Director, Autism Institute, Florida State University College of Medicine

9:15 a.m. **Panel V: Changing Contexts and Alternative Models**

This session will explore alternative models in family-focused interventions across systems, including international models, and describe possibilities to integrate new and generalized knowledge into local settings.

Moderator: William Beardslee, M.D., Gardner/Monks Professor of Child Psychiatry, Harvard Medical School, Planning Committee

Richard Spoth, Ph.D., Director, Partnerships in Prevention Science Institute, Iowa State University (20 min)

Terje G. Ogden, Ph.D., Research Director, Norwegian Center for Child Behavioral Development, University of Oslo (20 min)

Mary Jane Rotheram-Borus, Ph.D., Bat-Yaacov Professor of Child Psychiatry and Biobehavioral Sciences; Director, Center for HIV Identification, Prevention and Treatment Services, Semel Institute and the Department of Psychiatry, University of California, Los Angeles (20 min)

DISCUSSION

10:40 a.m. **BREAK**

10:55 a.m. **Keys to Effective Scaling: Lessons Learned from Various Fields and Sectors**

Joe McCannon, Consultant to The Bill & Melinda Gates Foundation; Former Senior Advisor to the Administrator and Group Director of Learning and Diffusion, Center for Medicare & Medicaid Services

11:25 a.m. **Panel VI: Synthesis and Way Forward**

This panel will discuss and synthesize the common themes and principles from the workshop. Members of the workshop planning committee will serve as discussants.

J. David Hawkins, Ph.D., Social Work Endowed Professor of Prevention, University of Washington School of Social Work

Pat Shea, M.S.W., M.A., Deputy Director, Office of Technical Assistance, National Association of State Mental Health Program Directors

Mary Ann McCabe, Ph.D., Associate Clinical Professor of Pediatrics, George Washington University School of Medicine

Ruth Perou, Ph.D., Child Development Studies Team Leader, National Center on Birth Defects and Developmental Disabilities, Centers for Disease Control and Prevention

William Beardslee, M.D., Gardner/Monks Professor of Child Psychiatry, Harvard Medical School

Lauren Supplee, Ph.D., Director, Division of Family Strengthening, Administration on Children and Families, U.S. Department of Health and Human Services

DISCUSSION

12:10 p.m. **Closing Remarks**

J. David Hawkins, Ph.D., Social Work Endowed Professor of Prevention, University of Washington School of Social Work, Planning Committee Chair

12:15 p.m. **Adjourn Workshop**

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Speaker Biosketches

Brian Bumbarger, M.Ed., is the Assistant Director for Knowledge Translation and Dissemination at the Prevention Research Center at Pennsylvania State University, and an adjunct Senior Research Fellow at the Key Centre for Ethics, Law, Justice and Governance at Griffith University (Queensland, Australia). He is the principal investigator and Founding Director of the Evidence-based Prevention and Intervention Support Center (EPISCenter), an intermediary organization supporting the scale-up of more than 300 evidence-based prevention programs and community prevention coalitions throughout Pennsylvania. For nearly two decades Mr. Bumbarger has conducted research on the dissemination, implementation, and sustainability of evidence-based programs and practices. He has been the principal investigator on several longitudinal studies of program implementation, effectiveness, and sustainability, and has published a number of articles, book chapters, and state and federal policy papers on prevention and implementation science. Mr. Bumbarger serves on federal expert panels for the National Institute on Drug Abuse, U.S. Department of Education, the Centers for Disease Control and Prevention, and the Administration for Children and Families, and regularly provides testimony before state legislatures, Congress, and to a number of foreign governments. In 2012 Mr. Bumbarger was elected to the Board of Directors of the international Society for Prevention Research.

Patricia Chamberlain, Ph.D., is a research scientist at the Oregon Social Learning Center. Dr. Chamberlain's interest in developing interventions for children and families emerged from her early work as a special education

teacher. She has conducted several studies on treatment for children, youth, and families in the juvenile justice, mental health, and child welfare systems. She founded the Multidimensional Treatment Foster Care (MTFC) (www.mtfc.com) and Keeping Foster and Kin Parents Supported and Trained (KEEP) (www.keepfostering.org) intervention models. MTFC is an alternative to group, residential, and institutional placement for youngsters with severe antisocial behavior and mental health problems. KEEP provides enhanced support and training to state foster and kinship parents to prevent placement disruptions, improve reunification rates, and reduce child behavioral and emotional problems. She has been the principal investigator on eight randomized trials examining the efficacy of parent-mediated intervention approaches. A current area of focus is implementation research which examines what it takes to integrate and scale up evidence-based practices to real-world agencies and systems. Dr. Chamberlain is also doing research on the development of intervention models for adolescent girls in the juvenile justice and child welfare systems that address girls' unique needs. In addition to working on research aimed at improving outcomes for youth and foster and biological families, she is interested in how to support child public service systems to improve the efficiency of their routine practices. She is involved in helping communities in the United States and Europe implement MTFC and KEEP and is a partner in Treatment Foster Care Consultants Inc.

Thomas Dishion, Ph.D., is the director of the Prevention Research Center and a professor of psychology at the Arizona State University. His translational program of research involves the study of relationship dynamics in generating and maintaining psychopathology and drug and alcohol abuse in children and adolescents. He developed the Family Check-Up model as a specific intervention strategy that promotes family resilience and reduces risk. He is currently leading an effort to support communities and agencies wishing to adopt the Family Check-Up strategy as a framework for service delivery for children and families. He has led several randomized studies evaluating the effects of family-centered interventions over the past 25 years. He has published more than 200 scientific reports on these topics, a book for parents on family management, and 3 books for professionals working with troubled children and their families.

Lisa Hill is Executive Director of Invest in Kids. For 15 years Invest in Kids has been committed to improving the health and well-being of vulnerable young children and low-income families throughout Colorado by bringing proven, prevention programs into communities across the state. Invest in Kids currently implements two research-based programs statewide: Nurse–Family Partnership and The Incredible Years®. Ms. Hill

leads Invest in Kids by strategically supporting and directing the organization to advance the quality services they provide and expand the number of vulnerable families and children served by their selected programs. She manages a robust internal organization of 18 professional and support staff and a board of directors with 10 members. She has led a culture that values leadership development, efficient systems, strong financial management, staff productivity, and commitment to mission. Ms. Hill's leadership in the nonprofit sector is evident in her strong community connections and active engagement with Invest in Kids's partners throughout the state. She has been publicly recognized by her award of the Bonfils-Stanton Foundation Livingston Fellowship, participation in the Denver Metro Chamber of Commerce Foundation's Leadership Denver Class of 2013 as well as the El Pomar Foundation's Nonprofit Executive Leadership Program, and most recently was named the 2014 9NEWS Leader of the Year. Ms. Hill holds a bachelor's degree in psychology from the University of Colorado at Boulder.

Kimberly Eaton Hoagwood, Ph.D., is Vice Chair for Research and Professor of Clinical Psychology in the Department of Child and Adolescent Psychiatry at the New York University (NYU) School of Medicine. Her research portfolio focuses on four areas: child, adolescent, and family outcomes; parent engagement and activation; implementation science in policy contexts; and quality measurement. She also works with the Division of Child, Adolescent and Family Services at the New York State Office of Mental Health (NYSOMH). Dr. Hoagwood received her B.A. in English from American University in Washington, DC, and her M.A. in psychology from Catholic University in Washington, DC. She received her Ph.D. in school psychology from the University of Maryland, College Park. Prior to joining the faculty at NYU, Dr. Hoagwood was Professor of Clinical Psychology in Psychiatry at Columbia University. Before that, she was Associate Director for Child and Adolescent Mental Health Research in the Office of the Director at the National Institute of Mental Health, where she also directed the Child and Adolescent Services Research program for 10 years. Dr. Hoagwood is Director and principal investigator of a National Institute of Mental Health–funded Advanced Center on Implementation and Dissemination of Evidence-based Practices Among States (also called the IDEAS Center). She also directs the Community Technical Assistance Center and the Evidence-based Treatment Dissemination Center, both funded by the NYSOMH. She is principal investigator on several other major grants and subcontracts, all focused on improving the quality of services and outcomes for children and families.

Clarese V. Holden, Ph.D., has been working in the substance abuse prevention and treatment field in the Federal Government Service for 30 years.

Dr. Holden began working for the Department of Health and Human Services, Substance Abuse and Mental Health Services Administration (SAMHSA), Center for Substance Abuse Prevention (CSAP) in 1989. SAMHSA was known at that time as the Alcohol, Drug Abuse and Mental Health Administration (ADAMHA) and CSAP was known as the Office for Substance Abuse Prevention (OSAP). In 1991, Dr. Holden, upon accepting a position, moved from prevention to treatment in the Office for Treatment Improvement (OTI). ADAMHA was reorganized, currently named SAMHSA and a couple years later, Dr. Holden was offered another position in CSAP. In 1998, Dr. Holden was selected by one of the largest think tanks in the world, the Brookings Institute located in Washington, DC, as a Brookings Institute Legislative Fellow. Dr. Holden was soon offered a fellowship as a LEGIS Fellow on Capitol Hill. Upon completing her fellowship, Dr. Holden returned to SAMHSA/CSAP. Dr. Holden has been a Federal Government Project Officer for almost every state and a number of U.S. jurisdictions to include Puerto Rico and the U.S. Virgin Islands. She served as the Special Projects Officer for Director of the CSAP Division of State Programs until 2007 when she was promoted to Senior Public Health Advisor. She served as the lead on the substance abuse prevention set-aside of the Substance Abuse Prevention and Treatment Block Grant and the lead on an expert workgroup of researchers and evaluators who responded to the president's health reform initiative related to substance abuse prevention and mental, emotional, and behavior disorders. Currently, Dr. Holden is the Branch Chief of CSAP's Division of State Programs, where she leads two teams of State Project Officers who monitor the 20 percent set aside of the Substance Abuse Block Grant and two discretionary grant programs, the Strategic Prevention Framework State Incentive Grant Program and the Partnership for Success Grant Program. She also supports the work of the SAMHSA Project Launch initiative.

Margot Kaplan-Sanoff, Ed.D., is Associate Professor of Pediatrics at Boston University School of Medicine and Boston Medical Center where she is Director of Child Development Training for the pediatric residents from the combined joint residency program at Boston Medical Center and Boston Children's Hospital. She is also National Director of the Healthy Steps for Young Children Program, responsible for developing the curriculum and parent materials and providing the ongoing training and technical assistance to more than 70 sites nationwide who are implementing the Healthy Steps Program in their pediatric practices. Healthy Steps promotes the emotional well-being of very young children and their families using primary care pediatrics as a service delivery system. She was Director of Pediatric Pathways to Success at Boston Medical Center, an enhanced approach to pediatric care providing families with child development information,

family support, and advocacy as part of routine well-child visits. As Director, Dr. Kaplan-Sanoff provided program development and clinical supervision to the seven family advocates and child development specialists on the Pathways team. Dr. Kaplan-Sanoff directed Early Matters, a Maternal and Child Health Bureau project to create a website called Brain Wonders (www.zerotothree.org) for pediatricians, parents, and child care providers on brain development and early literacy and was Director of Sharing Books with Babies, an early literacy training initiative for early care and education providers caring for infants and toddlers. Dr. Kaplan-Sanoff has more than 40 years of experience in the fields of early childhood, special education, pediatrics, and family support. She served as the Child Development Content Specialist for the Head Start Quality Initiative, the Training and Technical Assistance Network for Region 1 with responsibilities for providing technical assistance to Early/Head Start programs throughout New England. As Co-Director of the Child Development Project, she developed, implemented, refined, and evaluated a community-based child development program within a hospital setting that served more than 1,500 children and families in the first 5 years of the project. She was also Director of Steps for Kids: A Family Recovery Outreach Project, a training grant which provided training for all professionals working with substance-abusing women and their children. She has conducted mother–infant groups for Women and Infants Clinic, a family-focused intervention program that offered drug treatment services to cocaine-addicted mothers within the context of pediatric and child development services for their babies. She is currently working with opiate-dependent mothers and their newborns. For 8 years Dr. Kaplan-Sanoff was assistant professor at Wheelock College and Co-Director of the Birth to Seven Training Grant at Wheelock College, a personnel preparation grant designed to train early intervention, child life specialists, and preschool special educators through the graduate education program that emphasized medical-educational collaboration and family-focused intervention.

Stephanie Lee, M.A., is a Senior Research Associate at the Washington State Institute for Public Policy (WSIPP), a nonpartisan organization created by the legislature to carry out practical research on issues of importance to Washington. Since 2007, she has focused on identifying and evaluating the research evidence for programs and policies that affect children, particularly in the areas of child welfare and mental health. Her current work is centered on estimating the long-term economic impacts of strategies to improve outcomes for people in the state of Washington. She leads WSIPP's work with the Results First initiative, a collaboration between the MacArthur Foundation and the Pew Charitable Trusts. This project aims to develop and extend the capability of WSIPP's benefit–cost software, and

to support other states in using the WSIPP benefit–cost approach in their own specific contexts.

Joe McCannon is the former Senior Advisor to the Administrator at the Centers for Medicare & Medicaid Services (CMS) in the U.S. Department of Health and Human Services. Before joining CMS, Mr. McCannon was vice president and faculty on large-scale improvement at the Institute for Healthcare Improvement (IHI). At CMS, Mr. McCannon helped to implement major pieces of the President's Patient Protection and Affordable Care Act legislation, including launching the Center for Medicare & Medicaid Innovation (CMMI) and several other national programs. At IHI, Mr. McCannon drove organizational efforts to spread change in Africa, the United States, and several other regions. He led the organization's collaboration with the World Health Organization on the 3 by 5 Initiative and directed its major domestic initiatives to improve patient safety, the 100,000 Lives Campaign and the 5 Million Lives Campaign. Mr. McCannon has advised or consulted with other large-scale quality improvement efforts in Canada, Denmark, England, Japan, and the United States. He has also been involved with large-scale initiatives outside health care in areas including homelessness and corrections. He started his career in the publishing industry with roles at *Fast Company*, *The Atlantic Monthly*, and *Outside* magazines. He is a graduate of Harvard University and was a Reuters and Merck Fellow at Stanford University. He is presently a consultant to The Bill & Melinda Gates Foundation.

MaryBeth Musumeci, J.D., is an Associate Director at the Kaiser Family Foundation's Commission on Medicaid and the Uninsured, where she concentrates on Medicaid for people with disabilities, including issues related to people dually eligible for Medicare and Medicaid and long-term services and supports. Prior to joining the Commission staff, she held a Reuschlein Clinical Teaching Fellowship at Villanova University School of Law and spent 8 years as a civil legal aid lawyer, most recently as the Deputy Legal Advocacy Director of the Disabilities Law Program at Community Legal Aid Society, Inc., in Wilmington, Delaware, where her practice focused on Medicaid, Supplemental Security Income, other public benefits programs, and civil rights and accessibility issues. Previously, she developed and taught a seminar in Public Benefits Law at Widener University School of Law, clerked in the Delaware Family Court, and held an Independence Foundation Public Interest Law Fellowship representing women transitioning from welfare to work in Chester, Pennsylvania. She received her B.A. with highest honors from Douglass College, Rutgers University, and her J.D. from Harvard Law School.

Terje Ogden, Ph.D., holds the position as Research Director at the Norwegian Center for Child Behavioral Development, Unirand and is also professor at the Institute of Psychology, University of Oslo, Norway. He has specialized in intervention and implementation research and interests include clinical trials and large-scale implementation of empirically supported interventions targeting antisocial children and youth. Included are studies of moderators and mediators of effective interventions. Dr. Ogden is an experienced lecturer and presenter at seminars and conferences in Norway as well as internationally (for publications see www.ogden.no). Starting in 1998, Dr. Ogden was appointed the director of a Norwegian national research program on the implementation and evaluation of empirically supported programs for the prevention and treatment of serious behavior problems in children and youth. Ogden has published a number of articles on evidence-based treatments of children and youth with conduct problems within the context of schools, child welfare, and mental health services. He has also authored several books on the prevention and treatment of mental health and behavior problems and on the development and promotion of social competence in children and youth. Dr. Ogden is also the project leader of an ongoing longitudinal prospective study of the behavioral and social development of children in which approximately 1,200 children are followed from 6 months to fourth grade in primary school (The Behavior Outlook Norwegian Developmental Study, or BONDS). From 2005, the main objective of this study has been to determine the developmental trajectories of childrens' behavior and their determinants.

David Olds, Ph.D., is Professor of Pediatrics, Psychiatry, Public Health, and Nursing at the University of Colorado at Denver, where he directs the Prevention Research Center for Family and Child Health. He has devoted his career to investigating methods of preventing health and developmental problems in children and parents from low-income families by improving the conditions for pregnancy and early childrearing. The primary focus of his work has been on developing and testing in a series of randomized controlled trials a program of prenatal and infancy home visiting by nurses known as the Nurse–Family Partnership (NFP), which serves socially disadvantaged mothers bearing first children. Today, the program is operating in more than 440 counties, serving more than 23,000 families per year in the United States. Dr. Olds also is working with governments to adapt and test the NFP in international contexts, including Australia, Canada, England, the Netherlands, Northern Ireland, and Scotland. A member of the American Pediatrics Society, the Society for Prevention Research, and the Academy of Experimental Criminology, Dr. Olds has received numerous awards for his work, including the Charles A. Dana Award for Pioneering Achievements in Health, the Lela Rowland Prevention Award

from the National Mental Health Association, the Brooke Visiting Professorship in Epidemiology from the Royal Society of Medicine, and the 2008 Stockholm Prize in Criminology. Dr. Olds obtained his B.A. from Johns Hopkins University and his Ph.D. from Cornell University.

Ellen C. Perrin, M.D., received her medical degree from Case Western Reserve University and also holds a master's degree in developmental psychology from the University of Rochester. Dr. Perrin was President of the Society of Developmental and Behavioral Pediatrics in 1997-1998, and was instrumental in the effort to achieve official sub-board status for the subspecialty in 1999. She is currently the Research Director of the Division of Developmental-Behavioral Pediatrics at Floating Hospital for Children at Tufts Medical Center and a professor of pediatrics at Tufts Medical School. Her research has focused on improving developmental and behavioral assessment and care in primary care contexts. She has written one book and co-edited a recent textbook of developmental-behavioral pediatrics.

Guillermo ("Willy") Prado, Ph.D., obtained his doctorate in epidemiology in 2005. He is currently Miller Professor of Public Health Sciences and the Chief of the Division of Prevention Science and Community Health in the Department of Public Health Sciences at the University of Miami Miller School of Medicine. He is a prevention scientist with extensive experience in health disparities research and prevention intervention science. His program of research has been continuously funded by the National Institutes of Health (NIH) since the first year of his doctoral program when he received an R03. Since then, he has been principal investigator of approximately $10 million, mostly from the NIH, and an additional $50 million as senior mentor or co-investigator. Dr. Prado is currently the Director of Training for the University of Miami's National Cancer Institute–funded South Florida Cancer Health Disparities Center, and Co-Director of the National Institute on Drug Abuse–funded Center for Prevention Implementation Methodology for Drug Abuse and Sexual Risk Behavior (Brown, C.H., PI). He also Co-Chairs the Mentoring and Training Core of this Implementation Science Center. The aim of this latter Center is to facilitate the seamless integration of evidence-based preventive interventions into community practice. His accomplishments in health disparities and prevention science have been recognized by numerous professional organizations, including the Society for Prevention Research, the Society for Research on Adolescence, and the National Hispanic Science Network. In its inaugural class, the *Miami Herald* selected Dr. Prado as 1 of the Top 20 Business Leaders and Innovators in South Florida under the age of 40. He is currently an Associate Editor for *Prevention Science*.

Ron Prinz, Ph.D., A.B.P.P., is a Carolina Distinguished Professor in Psychology who directs the Parenting & Family Research Center at the University of South Carolina. Dr. Prinz attended University of California, Los Angeles, and University of California, Berkeley, as an undergraduate and received his doctorate in clinical psychology from the State University of New York at Stony Brook. He is lead editor (with Tom Ollendick) of Clinical Child and Family Psychology Review. His research focuses on parenting and family issues, population-based prevention of child abuse, the prevention of childhood behavioral and emotional problems, and treatment of substance abuse issues in families. Dr. Prinz was the lead investigator on the Center for Disease Control and Prevention-sponsored U.S. Triple P System Population Trial and currently directs clinical trials funded by the National Institute on Drug Abuse and the National Institute of Mental Health pertaining to interventions with families. He coordinates the Research Consortium on Children and Families at the University of South Carolina and a National Institutes of Health–supported T32 research training initiative called the Behavioral-Biomedical Interface Program.

Richard Spoth, Ph.D., is the F. Wendell Miller Senior Prevention Scientist and the Director of the Partnerships in Prevention Science Institute at Iowa State University. As the Institute director, Dr. Spoth provides oversight for an interrelated set of projects addressing a range of research questions on prevention program engagement, program effectiveness, culturally competent programming, and dissemination of evidence-based programs through community–university partnerships. These projects are funded primarily by the National Institutes of Health (NIH) and the Centers for Disease Control and Prevention. Among his NIH-funded projects, Dr. Spoth received a MERIT Award from the National Institute on Drug Abuse (NIDA) for a large-scale study evaluating combined family- and school-based interventions called the Capable Families and Youth Project. Another prevention trial, Project Family, is one of ten projects selected for NIDA's "Preventing Drug Abuse among Children and Adolescents: A Research-based Guide"; one of the programs it evaluates has received recognition from several federal agencies. Work on a dissemination trial called PROSPER (PROmoting School-community-university Partnerships to Enhance Resilience) has received awards from the Annie E. Casey Foundation and the National 4H Council; PROSPER has been approved as both a Blueprints "Promising" and a "Near Top Tier" intervention. Dr. Spoth has served on numerous federally sponsored expert and technical review panels addressing issues in prevention research and research-practice integration, including the Promise Neighborhood Research Consortium. In addition, he has been invited to testify and brief Congress, and to represent the prevention field on panels sponsored by the United Nations Office on Drugs and Crime.

With this work, Dr. Spoth received the Prevention Science Award from the Society for Prevention Research for outstanding contributions to advancing the field of prevention science, as well as the Service to the Society for Prevention Research Award, for leadership on the Task Force on Type 2 translation research.

Kathryn Stack is the Advisor for Evidence-Based Innovation at the U.S. Office of Management and Budget (OMB), helping federal agencies to strengthen their capacity to use and build evidence to improve their effectiveness. From 2005 to July 2013, she was OMB's Deputy Associate Director for Education, Income Maintenance, and Labor, overseeing budget, policy, legislation, regulations, and management issues concerning the U.S. Departments of Education and Labor, the Social Security Administration, the Food and Nutrition Service of the U.S. Department of Agriculture, and the Administration on Children and Families within the U.S. Department of Health and Human Services. In recent years, she was instrumental in helping federal agencies design several new grant-making models that allocate funding based on evidence and evaluation quality, and in building consensus across a number of federal agencies for adoption of common evidence guidelines. Prior to becoming division director, she served as an examiner and as Chief of the Education Branch of OMB, and held several management and budget positions at the U.S. Department of Education. She is a graduate of Cornell University and a fellow of the National Academy of Public Administration.

Lauren H. Supplee, Ph.D., is the director of the Division of Family Strengthening in the Office of Planning, Research and Evaluation (OPRE) for the Administration for Children and Families. This new division within OPRE includes work related to healthy marriage, responsible fatherhood, youth development, teen pregnancy prevention, early childhood home visiting, and domestic violence. Prior to this position her portfolio included projects such as Head Start CARES, a national group-randomized trial of evidence-based social-emotional promotion programs in Head Start classrooms; Home Visiting Evidence of Effectiveness (HomVEE), a transparent systematic review of the evidence on home visitation programs; Mother and Infant Home Visiting Program Evaluation (MIHOPE), a congressionally mandated national evaluation of the new Maternal, Infant and Early Childhood Home Visiting program; MIHOPE-Strong Start, an expansion of MIHOPE to examine home visiting and birth outcomes. Dr. Supplee was also a Society for Research in Child Development Policy Fellowship project officer and is currently co-lead of the federal Interagency Workgroup on Research on Evidence-Based Policies and Programs. She received her Ph.D. from Indiana University in educational psychology with a specialization in

family-focused early intervention services. Her personal research interests include evidence-based policy, social-emotional development in early childhood, parenting, prevention and intervention programs for children at risk, and implementation research.

Carolyn Webster-Stratton, Ph.D., M.P.H., is Professor Emeritus and Founder of the Parenting Clinic at the University of Washington School of Nursing. She is a licensed clinical psychologist and nurse practitioner, and a leading expert on parenting, family therapy, teacher training in classroom management and methods to reduce conduct problems and promote young children's social and emotional competence at home and at school. She has published books and training manuals for mental health professionals, parents, and children and numerous scientific articles concerning prevention and treatment programs for children with oppositional defiant disorder and attention deficit hyperactivity disorder. She has had extensive clinical and research experience in helping teachers and families reduce conduct disorders and strengthen social and emotional competence and school readiness skills. She has produced The Incredible Years® Parents, Teachers and Children training series, which consists of more than 36 training DVDs to be used with teachers, parents, and children. She received the 1997 National Mental Health Lela Rowland Prevention Award for her interventions with families, the prestigious National Mental Health Research Scientist Award, the 2013 Dale Richmond/Justin Coleman Lectureship Award (American Academy of Pediatrics), and a Doctor Honoris Causa from the Université de Sherbrooke.

Amy M. Wetherby, Ph.D., is a Distinguished Research Professor in the Department of Clinical Sciences and Director of the Autism Institute in the College of Medicine at Florida State University (FSU). She has more than 30 years of clinical experience and is a Fellow of the American Speech-Language-Hearing Association. She served on the National Academy of Sciences Committee for Educational Interventions for Children with Autism and is the Executive Director of the FSU Center for Autism and Related Disabilities. She also served on the DSM-5 Neurodevelopmental Workgroup of the American Psychiatric Association which is revising the diagnostic criteria for autism spectrum disorder (ASD), learning disorders, intellectual disabilities, communication disorders, and other developmental disorders. Dr. Wetherby is the Project Director of the FIRST WORDS Project, a longitudinal research investigation on early detection of ASD, funded by the U.S. Department of Education (DOE), National Institutes of Health, and Centers for Disease Control and Prevention. Dr. Wetherby is also the principal investigator of two randomized controlled treatment trials, one for toddlers with ASD funded by the National Institute of Mental Health

and one for school-age children funded by DOE, Institute of Education Sciences. She is the principal investigator at FSU for one of five collaborative research entities that form the Autism Intervention Research Network on Behavior Health funded by the Health Resources and Services Administration. She has developed and implemented screening tools for autism and communication disorders in large population-based samples of children 6 to 24 months of age. Dr. Wetherby is co-developer of Autism Navigator®, an innovative collection of tools and courses designed to bridge the gap between science and community practice using a highly interactive Web platform with extensive video footage to illustrate effective evidence-based practice. Her research focus is to study the use of innovative technology to build the capacity of the health care system to improve early detection of autism and communication disorders and provide access to cost-efficient prevention and early intervention services that are feasible for far-reaching community implementation.