

American Academy of Pediatrics

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***Connected Kids* Implementation Case Studies Project
Final Report
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For more information about *Connected Kids: Safe, Strong, Secure*, visit
www.aap.org/connectedkids or e-mail connectedkids@aap.org.

I. EXECUTIVE SUMMARY

During 2008, case studies were conducted in 8 diverse pediatric practices to examine implementation of the American Academy of Pediatrics (AAP) program *Connected Kids: Safe, Strong, Secure*. The project was designed to characterize what constitutes successful implementation of *Connected Kids*, what factors are associated with successful implementation of *Connected Kids*, and how practices and providers approach the process of implementing *Connected Kids*. Data were collected primarily through 2 site visits to the practices, one conducted during the initial steps in implementation and one conducted 2 to 4 months later.

Practices took very different approaches to *Connected Kids* implementation—some emphasized extensive preparation while others began implementing immediately and made adjustments along the way; some implemented *Connected Kids* for all patients while others focused on a specific age group. Although no practice achieved successful implementation given the limited time period examined, the following were identified as characteristics of successful implementation: the program is being used, families are being helped, counseling is improved, residents are educated on the program (where applicable), there is increased awareness of violence, provider-patient relationships are enhanced, connections are made with the community, and both patients and staff are satisfied with implementation. A variety of factors—described using a modified Strengths-Weaknesses-Opportunities-Threats (SWOT) approach—were identified that facilitated or served as barriers to implementation.

II. IMPLEMENTATION CASE STUDIES PROJECT OVERVIEW

The AAP program *Connected Kids: Safe, Strong, Secure* provides a comprehensive, logical approach for health care providers to integrate violence prevention into their practice. *Connected Kids* takes an asset-based approach to anticipatory guidance, focusing on helping parents and families raise resilient children. Each counseling topic discusses the child's development, the parent's feelings and reactions in response to the child's development and behavior, and specific practical suggestions on how to encourage healthy social, emotional, and physical growth in an environment of support and open communication. *Connected Kids* includes a clinical guide with counseling suggestions for each well-child visit and 21 patient education brochures for parents and teens.

The *Connected Kids* Implementation Case Studies Project was designed to examine the following questions:

- What constitutes successful implementation of *Connected Kids*?
- What are the key practice and provider characteristics associated with successful implementation of *Connected Kids* and improved violence prevention counseling?
- What is the process by which practices or providers implement *Connected Kids* and enhance their violence prevention/parental supervision and monitoring activities?

Case studies were conducted in 8 pediatric practices that had not previously begun to implement *Connected Kids*. Practices were chosen to achieve some diversity of practice setting and capacity to implement *Connected Kids*. The 8 practices can be described as follows:

- Solo practitioner in private practice in a rural area, with about half of the patient population privately insured
- Solo practitioner in a system-affiliated non-profit community health center in a rural area, with majority publicly insured patient population
- Small non-profit pediatric community health center (only 1 of 3 affiliated clinics was officially enrolled) in a medium-sized city, with a mostly publicly insured or uninsured, diverse patient population
- Medium-sized medical school-affiliated practice in a large city, with a mostly publicly insured or uninsured, diverse patient population
- Medium-sized private practice in a suburban area, with a mostly white, privately insured patient population (two practices)
- Large medical school-affiliated multispecialty group practice in a medium-sized city, with a majority publicly insured, diverse patient population
- Large medical school-affiliated public clinic in a large city with a mostly publicly insured, diverse patient population speaking many different languages

Upon agreement to participate in the project, each practice completed a Practice Environment Survey designed primarily to collect factual information regarding the practice environment. The Practice Environment Survey was e-mailed to the practice point person for completion, and was returned by e-mail or fax to project staff. Following completion of the survey, each participating practice received a copy of the *Connected Kids* Clinical Guide, 100 copies of each of the 21 patient education brochures, and a copy of *TIPP and Connected Kids on CD-ROM*, which includes all 21 *Connected Kids* patient education brochures and all patient education materials from TIPP—The Injury Prevention Program.

The practices were followed throughout the process of *Connected Kids* implementation, with 2 site visits to each practice, one at the beginning of implementation during training (in April or May 2008) and the other after several months of implementation (in July or August 2008). Site visits were scheduled for a convenient date for the practice. All site visits were conducted by Project Director Rebecca Levin-Goodman, MPH and consultant Elizabeth Flanigan, MS. Most site visits lasted 2 days. (Some of the site visits in single-physician practices lasted only 1 day.)

Each site visit included the following activities:

- *Physical Practice Environment Assessment.* The practice point person took the site visitors on a tour of the practice to help them orient themselves when discussing practice processes. A structured instrument, the Physical Practice Environment Assessment, was used to record certain data (e.g., presence of brochure racks). In addition, the site visitors collected sample copies of materials such as brochures and took photographs of items such as posters. The review of the physical environment will occur only during the first site visit.
- *Meeting of the site visitors and practice staff.* At each site visit (with the exception of 2 follow-up site visits for which scheduling was impossible), the site visitors met with practice staff. When possible, the meetings were scheduled for breakfast or lunchtime with food provided by the AAP, to encourage participation of as many staff as possible. The purpose of the meeting was to provide the site visitors with a shared understanding of how the practice approaches anticipatory guidance and *Connected Kids*

implementation and to reduce duplication and misunderstanding during the individual interviews. The meeting focused more on factual information than on opinion. During the first site visit, the site visitors led the staff through the process of developing a storyboard that describes the practice's process of providing anticipatory guidance; the storyboard was then reviewed and updated as needed during the second site visit. The storyboard was used during individual interviews when clarification was needed.

- *Interviews of individual practice staff.* The site visitors conducted interviews with up to 9 staff members per practice. For all interviews Ms. Flanigan served as interviewer and Ms. Levin-Goodman as notetaker. The staff interviewed varied by practice based on who was involved in *Connected Kids* implementation and individuals' availability. In each practice, interviews were conducted with the pediatrician champion of *Connected Kids* and with the person who was in charge of implementation. It was also a priority to interview providers (physicians, nurse practitioners) who were using *Connected Kids* and the practice's social worker (if applicable). Other individuals, including other types of clinicians, the office manager, the receptionist, administrators, external *Connected Kids* champions, and trainees were also interviewed. Many individuals were interviewed during both the initial and follow-up site visits. The questions asked of each individual varied based on his or her role in *Connected Kids* implementation.

III. ANALYSIS

The Project Director reviewed and thematically coded all data collected during the site visits (physical practice environment assessments, including photographs and examples of materials; notes from staff meetings and individual interviews; and storyboards). Data from within each practice were used to describe that practice's approach to *Connected Kids* implementation, including how *Connected Kids* fit within the context of the practice environment and the practice's provision of anticipatory guidance, how staff were trained, and how community connections were made. Data from all practices were used to characterize what constitutes successful implementation of *Connected Kids*. Data from across all 8 practices were analyzed using a modified Strengths-Weaknesses-Opportunities-Threats (SWOT) approach to identify contributing factors and barriers to successful implementation of *Connected Kids*. Lastly, participants' suggestions for additional resources or tools that would be useful in supporting *Connected Kids* implementation were cataloged. Interviews and staff meetings were recorded but not transcribed; recordings were reviewed when the notes required clarification.

IV. RESULTS

Approaches to *Connected Kids* Implementation

Practices were not provided with any specific guidance about how to implement *Connected Kids*, beyond suggesting that they review the "Ideas for Optimal Use" section of the Clinical Guide and noting that practices that had already implemented *Connected Kids* seemed to have the most success when they took an incremental approach to implementation. Each of the participating

practices took a different approach to implementation, and each made a different amount of progress in fully implementing according to their practice's plans.

In one practice, a resident continuity clinic, extensive emphasis was placed on preparation; by the time of the follow-up site visit, the practice was still working to familiarize people with *Connected Kids* and the program was not yet being used much with families. The practice chose to use *Connected Kids* in well-child visits for all ages because they felt it made sense to introduce the new residents to the program in its entirety and that implementing the entire program would be just as easy as implementing for a single age group. The practice also decided to focus on having residents, rather than nurses, address *Connected Kids* topics, in keeping with their role as a teaching facility. The residents were introduced to the program with an initial lecture by the pediatric nurse practitioner, and additional lectures and shorter teaching sessions were planned throughout the year. The *Connected Kids* brochures were placed in a filing cabinet in a central location; where possible, the brochures were supplemented with lists of related community resources. Prompts were added to the well child forms in the practice's electronic medical record, with the name of each brochure for the visit included in the education section of the form.

Another practice decided to have front office staff include the age-appropriate brochure(s) when preparing charts. The front office staff were instructed to give the brochure to the family during check-in so that the family has time to review it. Nurses were supposed to discuss the brochure with the family during triage; if the front office staff did not give the family the brochure, the nurse did. If neither the front office staff nor nurse had given the brochure to the family, the doctor did so. The frequency with which staff were following through on their assigned responsibilities seemed to be increasing over time. The practice started by using brochures for infancy and early childhood because the majority of their visits are for children age 5 and under, and they were gradually increasing which brochures were used.

In one practice with only a single pediatrician, he was able to try two different approaches to implementation and was considering others. Initially the pediatrician tried handing out *Connected Kids* brochures himself when patients came in, but that did not give parents any time to look at the brochure and ask questions. Then he tried having the medical assistants give parents brochures when putting patients in exam rooms, but that still did not allow parents to have enough time to review the brochures. He was considering mailing the age-appropriate brochure(s) to parents when appointments are made, but noted that many appointments are scheduled for the day they are made and that another option might be to e-mail the brochures to parents. He mentioned that his preference would be to include *Connected Kids* brochures on his practice Web site for parents to download them. (This option will be available in early 2009.) With each of these approaches, the practice was using the brochures for the first year of life because the pediatrician felt that it would be overwhelming to use all the brochures at once.

In one of the resident continuity clinics, residents were introduced to *Connected Kids* through two separate 1-hour lectures. Attending physicians and residents were supposed to give age-appropriate brochure(s) to patients at the end of visit, when anticipatory guidance was typically provided in the practice, but it was acknowledged that brochures were not provided at every visit. This practice had used brochures of any kind only infrequently during anticipatory

guidance, and implementation of *Connected Kids* resulted in greater use of brochures generally. Medical assistants were able to use brochures to answer questions that they had previously needed help from the physicians to answer. Implementing *Connected Kids* sparked the practice to consider how families might be provided with more materials in general, for example by giving each family a packet of age-appropriate resources or by having brochure racks in exam rooms. Implementation of *Connected Kids* also contributed to taking a more family-centered approach practice-wide, with front office staff beginning to ask about and document parent concerns on a variety of topics when scheduling appointments.

In another practice, anticipatory guidance was provided primarily by the pediatricians (some of whom used handouts) and through a nurse help line. *Connected Kids* was introduced to the practice staff through several meetings, and the practice brainstormed about the best ways to incorporate the program. For pediatricians who already used handouts, they incorporated *Connected Kids* in their existing packets of age-appropriate resources. Some brochures were placed in the waiting room for parents to take, and others were placed in folders in exam rooms for use by the physicians. The practice was considering installing brochure racks in some of the exam rooms or posting *Connected Kids* brochures on bulletin boards in exam rooms to increase accessibility to parents and to remind the pediatricians to use the materials. The practice intended to continue discussing *Connected Kids* at its monthly meetings to keep the program fresh in everyone's mind.

In one practice, anticipatory guidance was provided almost exclusively by the pediatricians; many handouts from the AAP were available in racks in the waiting room and some materials were in files in exam rooms for use by the physicians. Before implementing *Connected Kids*, the physician partners had to come to consensus that it would be beneficial for the practice. It was decided to add a number of *Connected Kids* brochures to the handouts available in the waiting room and to have the pediatricians provide brochures to families of children between 1- and 3-years-old. The brochures were made available to the physicians in one place; each used a different strategy (e.g., keeping counseling schedule at his station) to remind him/herself to use the brochures, and some had begun to use brochures from outside the selected age group. The practice had considered having the receptionists or nurses put brochures with patient charts in advance, but felt that they were too busy with the paperwork of school physicals, a decision the practice was considering revisiting in the fall. As with implementation of other programs in this practice, the pediatricians intended to continue to discuss implementation of *Connected Kids*, noting that ongoing assessment would be part of getting the program institutionalized in the practice.

In one continuity clinic, the faculty had an extensive discussion about the approach to implementation and decided to focus on one topic for several months. A resident and nurse were identified to take the lead on implementation of the first topic. These lead implementers selected a topic (media violence/screen time), investigated related resources to supplement *Connected Kids*, developed a brief screening questionnaire and tip sheet for use with families, compiled binders of information about media violence (e.g., AAP policy statement) and local alternatives to media use (e.g., libraries, parks), and conducted a brief training session on the topic. To assess how well this approach worked, the lead resident implementer planned to make follow-up phone calls to families that had had positive screens to ask if they remember discussing media

with their provider, whether they had made any changes, and whether they wanted to discuss the topic more. It was anticipated that each successive pair of implementers would learn from previous implementers as they develop approaches to address their selected topic. In addition, all the brochures were made available for patients to take and for residents to use as resources during counseling, and each resident and faculty member was provided with a copy of the Clinical Guide.

One solo practitioner was very embedded in the rural community in which the practice was located, and community partners were extensively involved in *Connected Kids* implementation. The pediatrician and her medical assistant distributed brochures to families and provided counseling using suggestions from the Clinical Guide. Because the practice's patient population was very young, they focused on providing infancy and early childhood materials. Community partners and schools were enlisted to ensure that middle childhood and adolescent brochures would be distributed to community members. The pediatrician introduced the program to community partners at a local health advisory council meeting using guidance from the Clinical Guide.

Characteristics and Benefits of Successful Implementation

Participants were asked what successful implementation of *Connected Kids* would mean to them at both the practice and individual levels. Although no practice fully achieved successful implementation because of the short time frame of the project, participants were able to describe what they would consider to be characteristics and benefits of successful implementation. The following themes emerged:

Use of program. One of the most straightforward themes was the practice's use of *Connected Kids*, as indicated by providers who are aware of the program, discuss it with parents, are able to access the materials, and distribute brochures; brochures being accessible to and taken by parents and teens; and seeing parents reading the brochures. In a practice that had distributed a number of brochures by the time of the follow-up site visit, it was noted that no *Connected Kids* materials had been left in the parking lot or waiting room, a common complaint about many patient education brochures, and that fathers not just mothers seemed to be interested in reading the brochures. Ultimately, practices would like to have *Connected Kids* institutionalized, with every patient in their selected target population receiving *Connected Kids* information regardless of which provider in the practice they see.

Helping families. Not surprisingly, helping families improve their parenting practices by providing better and more thorough education emerged as one of the most commonly mentioned indicators of success. One participant noted that people become physicians because they want to help people not just physically but also emotionally. Many participants said that they would feel successful if they help just one family, while others wanted every family to leave the practice with something they find personally useful and feeling like all their questions had been addressed. It was observed that all parents want to be good parents but sometimes do not know where to turn for guidance; they could be assisted by learning that *Connected Kids* is a resource, about alternative approaches to parenting, what to do when frustrated, and how to handle certain situations. *Connected Kids* could help the practice consistently convey the messages that

parenting is hard, that “it takes a village to raise a child,” and that parents should ask for help when they need it. By providing *Connected Kids* brochures to reinforce verbal counseling, participants hoped to help parents feel more confident, know that all parents experience frustration, improve their parenting skills, better understand child development and its implications for discipline, better prepare their children for adulthood, and have improved relationships with their children. Participants commented on the importance of beginning to discuss parenting as early as possible and their preference for taking a preventive rather than reactive approach. Participants mentioned that parents could be helped by anything from working with them over a long time on a particular behavioral issue, to providing a brochure to give the parent reassurance, to just making sure parents leave the visit with a brochure in hand. It was noted that many parents are glad to be given written materials. It would be considered a sign of success for parents to be able to understand and implement the information they receive and see some improvement in their situation. Participants disagreed about whether successful implementation would be characterized by parents returning to the practice to ask for *more* guidance and materials or by parents asking *fewer* follow-up questions because they have been given the resources (i.e., *Connected Kids* brochures) to find their own answers and feel better prepared to handle situations that arise with their children. Participants would like to see *Connected Kids* use eventually lead to lower incidence of violence.

Improve counseling. A very similar theme was that successful *Connected Kids* implementation would involve improved provision of anticipatory guidance. Participants noted that *Connected Kids* had already helped them achieve specific improvements in their counseling, including addressing families’ needs more specifically instead of only generally, addressing topics that were previously addressed only superficially or not addressed at all, and discussing topics in a more open-ended and non-judgmental way. It was noted that success could mean improving anticipatory guidance one family at a time, but that ultimately it should be at the forefront of providers’ minds to cover *Connected Kids* topics.

Resident education. Because some of the practices in the project are teaching facilities, ensuring that residents are trained to provide high quality care, with an emphasis on anticipatory guidance, emerged as a major theme in successful implementation. One measure of success would be having residents know what a well-child exam should include and how to build on anticipatory guidance from visit to visit, feel confident in their ability to discuss violence-related topics, and have more knowledge and tools at their disposal. It was noted that *Connected Kids* supports a systematic approach to well-child care, which would be beneficial for residents. Interest was expressed in having residents approach anticipatory guidance and *Connected Kids* enthusiastically and getting them to internalize the topics so that discussion simply becomes second nature. In some programs, residents would be encouraged to take on *Connected Kids*-related advocacy projects. Ultimately, a sign of success would be if residents choose to use *Connected Kids* in their own practices; some outgoing third-year residents had already expressed interest in doing so.

Increased awareness. Many participants noted the importance of increasing practices’, providers’, residents’, parents’, and communities’ awareness of violence and its impact on children. In particular, it was noted that *Connected Kids* could help providers be aware of the importance of actively screening for and addressing violence, find help for children who are not

already getting what they need, be more cognizant of subtle signs of violence in the home, and think about opportunities to improve children's health. It was also mentioned the *Connected Kids* would be helpful in raising awareness of the need for a broad approach to violence prevention.

Provider-patient relationship. A number of participants mentioned that *Connected Kids* implementation could help improve provider-patient relationships by letting parents know that the pediatrician cares about them. It was noted that use of *Connected Kids* could make parents more open to discussing sensitive issues and more willing to consider the pediatrician to be a resource on a wide range of topics beyond physical health. Nurses in several practices were particularly interested in how they might use *Connected Kids* to address violence prevention by building on their already strong relationships with parents. It was hoped that parents' receptivity to discussing topics related to violence prevention would continue to increase over time; some participants hoped that parents would eventually take a proactive approach to asking about such topics.

Community connections. It was noted that successful *Connected Kids* implementation would involve connecting with the right people and groups because the pediatrician cannot and should not do everything. In one practice it was mentioned that community resources must be identified to supplement the general information in the *Connected Kids* brochures. Community connection was seen as a two-way exchange; in successful implementation the community could hear about the practice's implementation of *Connected Kids* and want to be involved.

Patient satisfaction. Participants mentioned that *Connected Kids* implementation could contribute to patient satisfaction and the practice's reputation. Some practices wanted to be seen by patients as connected to the AAP, caring, and up-to-date. It was noted that use of *Connected Kids* could make a practice stand out as the type of practice parents want to be connected to.

Staff satisfaction. Several participants noted that *Connected Kids* implementation could also contribute to staff satisfaction by re-energizing and empowering them. Practice morale can be enhanced by having a common goal and being challenged to improve the quality of care. It was observed that staff enjoy handing out the *Connected Kids* materials and having resources to answer questions more confidently and easily. It was also noted that *Connected Kids* can make pediatricians' job easier by providing them with brochures to cover certain topics or answer parents' questions. In one practice it was suggested that *Connected Kids* could spur faculty development by having them engaged in developing metrics and reports.

Contributing Factors and Barriers to Successful Implementation

A variety of factors were identified that facilitated or served as barriers to successful implementation. These can be grouped into strengths of the approach to implementation, weaknesses of the approach to implementation, opportunities present in the practice environment, and threats present in the practice environment.

Strengths. The most dominant strength in the approaches to implementation used by practices in this project was the participation itself. Practices appreciated receiving the materials for free;

some noted that they would not necessarily have purchased *Connected Kids* materials otherwise. The site visits were mentioned as a strength of the approach to implementation in almost every practice. For some individuals, the site visits provided a sense of motivation and accountability. For others, the site visits emphasized how important *Connected Kids* is to the AAP. In a number of practices, the process of participating in the project, most notably development of the storyboard, provided a goal for the entire practice to work toward and helped everyone be on the same page with implementation.

Additional themes that emerged as strengths of the various implementation approaches taken included the following:

- Having a champion; leaders who project positivity and serve as examples; having buy-in from physicians; having the entire team involved in implementation to ease time as a barrier
- Availability of *Connected Kids* as a complete packaged program with color-coordinated brochures; use of the *Connected Kids* CD-ROM to keep costs down, incorporate *Connected Kids* materials with electronic medical records, and eliminate the need to store materials; ability of *Connected Kids* to accommodate individual preferences for use of brochures vs. handouts from CD
- Building *Connected Kids* implementation into things the practice already does
- Regular meetings to decide how to implement *Connected Kids* and assess progress with implementation
- Use of brochures to make it easier for providers to broach violence prevention topics and to put parents at ease; displaying brochures in exam rooms as a reminder to providers to use them and to ensure accessibility for patients; putting brochures in the waiting room to encourage parents to take them and bring up the topics with physicians
- Attaching age-appropriate brochures to patient charts before well-child visits; documenting provision of brochures to families
- Having parents take brochures home with them to mitigate concern about impact on the length of visits
- Proper staff training and providing staff with time to read the brochures; training for any group responsible for an aspect of implementation
- Enlisting community partners to support implementation

Weaknesses. Participants noted some important weaknesses in their practices' approaches to implementation, including the following:

- Lack of clarity about roles and responsibilities; lack of a process regarding who provides *Connected Kids* material to parents and how it is documented; lack of communication among staff
- Lack of direction provided by physicians; lack of buy-in from physicians or office staff
- Failure to review documentation of previous use of *Connected Kids* with family; viewing *Connected Kids* simply as one more thing to document
- Putting brochures someplace inaccessible to providers; making physicians responsible for getting brochures; lack of consistent reminders for providers
- Difficulty figuring out where and when to provide brochures to patients
- Implementing all 21 brochures at once, making it hard for providers to become familiar with them

- Lack of staff training, including on how to broach issues privately with teens
- Misunderstanding the role of the case studies project, expecting project to regularly follow up on practice's progress and to provide staff training

Opportunities. Both the nature of the *Connected Kids* program and various characteristics in the practice environment provided opportunities to facilitate implementation of *Connected Kids*, including the following:

- Ease of use of *Connected Kids* program; clinical pertinence of *Connected Kids* topics
- Practices and pediatricians who recognize the importance of anticipatory guidance; *Connected Kids* as a tangible supplement to what providers already do rather than a brand new thing to add to practice; adding *Connected Kids* to a practice's existing approach to anticipatory guidance and system for giving out handouts; allowing practices to take a more streamlined approach to something that they already consider high priority
- New group of residents began July 1; *Connected Kids* provides residents with a resource to practice communication skills
- Strong patient-provider relationships, encouraging parents to open up about *Connected Kids* topics
- Having physical space to display and store brochures
- Practice Web site, to provide staff access to *Connected Kids* materials via an Intranet or to provide patients with access to materials when the new version of the AAP Patient Education Online program is available
- Specific providers of anticipatory guidance in some practices, limiting the number of people who need to be trained in use of *Connected Kids*
- Social workers in some practices, allowing providers to introduce *Connected Kids* topics and social workers to follow up in more depth
- One practice had been open for only a few months, providing something of a "blank slate"
- One practice schedules 30-minute well-child exams, providing more opportunity for discussion of *Connected Kids* topics
- One practice has a strong history of involvement in injury prevention, making it easier to get buy-in regarding *Connected Kids* implementation

Threats. Participants noted characteristics of both the *Connected Kids* program and their practice environments that were threats or barriers to their successful *Connected Kids* implementation, including the following:

- Having enough time during visits to discuss *Connected Kids*, with there already being so many topics to cover in well-child care and parents' increasing desire to discuss their concerns about vaccine safety (Many participants found that, once initial start-up was complete, this was not as much of a barrier as expected because they were able to integrate *Connected Kids* within their existing approach to providing anticipatory guidance.); lack of downtime for parents to read brochure before seeing pediatrician in some practices
- Language barriers; low literacy levels
- Parent resistance or lack of receptivity; parents feeling that they are receiving *Connected Kids* materials because the provider thinks they are bad parents (Many participants

reported that this did not turn out to be a barrier, as *Connected Kids* helped them counsel on sensitive topics in a nonjudgmental way.); parents who are overwhelmed and do not have time to read materials; parents who feel defeated

- Cultural differences; families' recognition/definition of violence and the need to redefine what is normal
- Parents who think they know best; preconceived biases that affluent parents already know what they should be doing; overly educated parents with bad information
- Change is always difficult; change and learning take time, which is very hard in a busy primary care setting; difficulty in learning how to counsel differently; difficulty in balancing incorporation of *Connected Kids* topics while addressing parents' needs for anticipatory guidance; resistance to change among physicians and practice staff, especially for those who have been in their current roles for a long time; having enough time to read materials before giving them to patients; difficulty of getting in the habit of doing something new, especially for residents who are only in the continuity clinic a half day per week
- Getting all employees on board; difficulty in getting the entire practice to do the same thing and see the value in it; getting staff to think about what they are doing, not just do things in a rote fashion; difficulty in implementing something systematically across a practice
- Confusion about who is responsible for providing anticipatory guidance, particularly in settings where residents are supposed to be learning but nurses also provide a lot of anticipatory guidance
- Busy residents who think of *Connected Kids* as just another thing to do; lack of a mechanism to ensure that residents are using *Connected Kids*
- Cost of materials; having physical space for materials
- Crowded, busy practices; some practices were short staffed; parents bringing multiple children to a well-child visit; complexity of patient population and chaos of environment in some practices
- Lack of community resources, especially for mental health
- Hard for pediatricians to find time to participate in community activities
- Difficulty in initiating *Connected Kids* implementation during busy back-to-school season
- Project spanned beginning of new resident year, complicating incorporation of *Connected Kids* in training sites

Additional Resources or Tools That Would Support Implementation

Participants suggested certain changes to the *Connected Kids* program, additional resources or tools, and activities AAP chapters or the national AAP could undertake to support *Connected Kids* implementation, and several themes emerged.

Accountability. Participants noted that one of the strengths of the case studies approach was that they felt accountable for making progress in *Connected Kids* implementation, but they recognized the impracticality of having AAP staff visit all practices that are using *Connected Kids*. Several alternatives were suggested to provide practices with some sense of accountability, including making quarterly reminder phone calls about implementation; holding

monthly teleconferences; and identifying a practice champion when *Connected Kids* materials are sold.

Additional supporting materials. Participants suggested several types of additional materials that could be developed to support *Connected Kids* implementation including posters for exam rooms listing available *Connected Kids* brochures; instructions for developing storyboards and a sample storyboard; DVDs for the waiting room to emphasize *Connected Kids* messages; and a shorter version of the clinical guide for use by non-clinical community partners. It was also suggested that the *Connected Kids* handouts be modified so that each can print on one double-sided piece of paper.

AAP chapters. Participants were asked about how AAP chapters can support *Connected Kids* implementation and generated the following ideas: providing continuing medical education sessions, including through annual meetings; encouraging young chapter members to take *Connected Kids* on as a “pet project”; and providing in-office training.

National AAP. Participants were also asked how the national AAP can support *Connected Kids* implementation, and the following suggestions were made: providing continuing medical education; sharing ideas about implementation approaches tried by different practices; finding ways to recognize or certify practices as “*Connected Kids* practices”; providing mini grants to chapters to support local training; providing mini grants to training programs to support resident involvement in *Connected Kids* projects; investigating how *Connected Kids* could fit within quality improvement requirements for Maintenance of Certification; and researching the effectiveness of *Connected Kids*, to demonstrate the program’s value in practice.

Connected Kids for Continuity Clinics. The AAP Friends of Children Fund is supporting provision of *Connected Kids* CD-ROMs to all pediatric continuity clinics nationally during 2008-2009. Project participants from continuity clinics provided a number of suggestions about this project: framing *Connected Kids* in the context of residency requirements for involvement in quality improvement; emphasizing to programs the need to set aside time for residents to read *Connected Kids* materials prior to use; and focusing on how *Connected Kids* supports anticipatory guidance broadly not just on violence prevention.

V. CONCLUSIONS AND RECOMMENDATIONS

Connected Kids was well received by practices participating in the case studies, and all practices made significant progress in planning to implement and/or implementing *Connected Kids* during the project timeframe. Although each practice took a different approach to implementation, the following were identified as characteristics of successful implementation: the program is being used, families are being helped, counseling is improved, residents are educated on the program (where applicable), there is increased awareness of violence, provider-patient relationships are enhanced, connections are made with the community, and both patients and staff are satisfied with implementation.

A variety of factors were noted as facilitators or barriers to implementation. Most notably, participation in the project itself was mentioned as the primary facilitator in most of the practices. The following recommendations are made to provide more replicable ways to confer some of the benefits of the case studies approach:

- The AAP Department of Marketing and Publications should look into how to identify a practice champion when *Connected Kids* materials are sold. The AAP Division of Safety and Health Promotion could send regular implementation reminder e-mails to these individuals (and others who request it).
- The Division of Safety and Health Promotion, with assistance from the Division of Chapter and District Relations and Department of Development, should identify mechanisms to support provision of in-office training, primarily through AAP chapters.
- The Division of Safety and Health Promotion should develop suggestions for use of a storyboard as part of initiation of implementation, to be posted on the *Connected Kids* Web site.

The following additional recommendations were developed based on the findings from the case studies:

- The Department of Marketing and Publications and Division of Safety and Health Promotion should continue to pursue development of a shorter version of the Clinical Guide for use by non-clinicians.
- The Divisions of eLearning and Safety and Health Promotion should initiate development of a *Connected Kids* eQIPP (Education in Quality Improvement for Pediatric Practice) course.
- The Division of Safety and Health Promotion should develop an area on the *Connected Kids* Web site to share “success stories,” including the findings from this project.

These findings and recommendations have been shared with the AAP Violence Prevention Subcommittee. Over the next few months the Subcommittee and staff will be developing a comprehensive plan for next steps in dissemination and implementation of *Connected Kids*.