

**Improving the Delivery of Health  
Care that Supports Young  
Children's Healthy Mental  
Development**

*Update on Accomplishments and Lessons  
from a Five-State Consortium*

*Neva Kaye  
Jill Rosenthal*

February 2008

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# **Improving the Delivery of Health Care that Supports Young Children’s Healthy Mental Development Update on Accomplishments and Lessons from a Five-State Consortium**

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## TABLE OF CONTENTS

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Executive Summary .....	1
Key Accomplishments .....	1
Lessons Learned.....	2
Introduction .....	3
The ABCD II Program.....	5
The ABCD II Consortium.....	5
Overview of the State Projects.....	5
By the Numbers: Accomplishments and Lessons in Measuring Screening, Referral, and Follow-up .....	8
Summary of Results: Screening for Social and Emotional Development Concerns .....	10
Summary of Results: Referral and Follow-up Services.....	11
Lessons Learned about Measuring Screening, Referral, and Treatment .....	13
By Objective: Strategies for Supporting and Facilitating Improvements in the Delivery of Developmental Services.....	15
Recommending Screening Tools for Use by Pediatric Clinicians.....	15
Working with Clinicians to Integrate Screening Tools into their Practices.....	19
Improving Referrals and Access to Follow-up Services.....	21
Identifying and Addressing Policy Barriers.....	24
Partnering to Achieve Goals .....	27
Financing Improvements in Care During Difficult Times.....	30
Summary of Lessons Learned.....	32
Screening With a Standardized Tool for Potential Social and Emotional Development Delays is an Important Step in Ensuring Young Children’s Healthy Mental Development ....	32
Screening Does Little Good without Access to Follow-up Services .....	32
States Can Facilitate Access to Follow-up Services .....	33
Demonstrations Can Inspire and Test Policy Change.....	33
Partnering With Pediatric Clinicians is Critical to Improving the Care Delivered to Children.....	34
Developing Successful Partnerships with Providers Takes Effort and a Willingness to Follow as well as Lead.....	34
Measuring Screening, Referral, and Treatment Rates for Young Children at risk for Developmental Delays is Challenging, Must be Planned Carefully, and, Ideally, Piloted.....	34
States Can Improve Care without New Funding or Legislation .....	35
Conclusion .....	36

Appendix A: Profiles of State Projects

State Profile: California .....	37
State Profile: Illinois .....	38
State Profile: Iowa.....	40
State Profile: Minnesota.....	42
State Profile: Utah.....	44

Appendix B: Summary of Selected Evaluation Results by State

California .....	46
Illinois .....	48
Iowa.....	50
Minnesota.....	51
Utah.....	53

Notes .....	55
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## LIST OF TABLES

---

Table 1	Overview of state project objectives .....	6
Table 2	Summary of rates of screening for potential delays in social and emotional development in demonstration sites.....	9
Table 3	Demonstration site data on referrals and follow-up services indicates difficulties in accessing/tracking follow-up services .....	13
Table 4	Screening tool recommendations .....	16

## LIST OF FIGURES

---

Figure 1	After training, physicians in the Illinois practice-based demonstration were more likely to use a validated screening tool than a checklist or clinical judgment-only .....	11
Figure 2	In California, screening rates increased after implementation.....	46
Figure 3	In Illinois, physicians in the practice-centered demonstration site shifted to greater use of validated screening tools as part of well-child care after training.....	48
Figure 4	In Iowa, a greater percentage of children were adequately screened as part of well-child care after the intervention .....	50
Figure 5	Children in Minnesota’s demonstrations site were more likely to be screened as part of well-child care after implementation.....	51
Figure 6	In Utah, practices were more likely to screen children for social and emotional development concerns after training.....	53

## EXECUTIVE SUMMARY

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Services that support young children’s healthy mental development can reduce the prevalence of developmental and behavioral disorders. Unchecked, social, emotional, and behavioral development delays have high costs and long-term consequences for health, education, child welfare, and juvenile justice systems – and for children’s futures.

In January 2004, the second Assuring Better Child Health and Development (ABCD II) Consortium was formed. It provided five states (California, Iowa, Illinois, Minnesota, and Utah) an opportunity to develop and test strategies for improving the delivery of developmental services to young children at risk for or with social or emotional development delays, especially those in need of preventive or early intervention services. The states sought, by different means, to improve the identification of children in need of developmental services and improve the likelihood that those identified with a potential need received appropriate follow-up services, including intensified surveillance, assessment, and treatment. By the end of the three-year consortium, all produced data indicating success.

*Identification:* There is evidence in the literature that physicians who use an objective screening tool will more effectively identify children who may be at risk for, or have, a developmental delay than physicians who do not use such a tool. All five ABCD states were able to increase screening using an objective screening tool in selected practices in which they tested their approaches to encouraging this practice. Two states also increased screening for perinatal depression in those same practices.

*Referral for follow-up services:* Most ABCD II states also demonstrated an increase in the percentage of children referred for services such as secondary developmental surveillance, assessment, rehabilitation, child psychologist evaluation, early intervention, and school services.

*Receipt of follow-up services:* The ABCD II states had less success in measuring whether their interventions improved the likelihood that children received appropriate follow-up services. This is likely due both to problems the states encountered in measuring children’s receipt of follow-up services<sup>1</sup> and a lack of resources for those services.

The five states made vital progress and learned valuable lessons. The purpose of this paper is to provide an opportunity for other states interested in improving child development services to benefit from the experiences of these five states. The paper updates a previously released report on interim accomplishments and lessons.<sup>2</sup>

### Key Accomplishments

Among the key accomplishments, states:

- Identified validated screening tools and promoted pediatric provider use of these tools through activities such as modifying Medicaid provider handbooks and holding training sessions.

- Helped primary care providers integrate validated screening tools into their practices through education, training, and support activities.
- Identified resources and facilitated appropriate referral to follow-up services.
- Identified and addressed policy barriers in Medicaid and other state programs, such as early intervention.
- Formed key partnerships with other state agencies, clinicians, and provider organizations to achieve project goals.
- Used quality improvement projects to produce and sustain improvements.

## Lessons Learned

Among the lessons learned during the project were:

- Screening with a standardized tool for potential social and emotional development delays is an important step in ensuring young children’s healthy mental development.
- Screening is just the first step; there must also be access to follow-up services. Efforts to identify and help families and clinicians access resources for assessment and treatment were critical to project success.
- States can facilitate access to follow-up care for young children who are identified by pediatric providers as experiencing or being at risk for delays in social or emotional development. States can provide direct assistance, improve coordination among programs, and help practitioners develop links with local resources.
- Demonstrations can inspire and test policy change. Pilot sites were an effective method of testing whether new ideas work and ensuring that policy changes were grounded in real-life experience.
- Active partnerships with pediatric clinicians are critical to improving the care delivered to children. Clinicians played key roles in developing and communicating state recommendations for screening tools, identifying needed policy changes, providing assistance to pilot practices, and spreading improvements throughout the state.
- Developing successful partnerships with providers takes effort and a willingness to follow as well as lead.
- Measuring screening, referral, and treatment rates for young children at risk for developmental delays is challenging, must be carefully planned and, ideally, piloted.
- States can improve care by leveraging existing resources and partnering with other stakeholders. New funding or legislation is not a requirement.

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## INTRODUCTION

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Many young children could benefit from improved delivery of services that support healthy mental development. Preventive and early intervention services promote school readiness and prevent the need for more costly interventions at a later date. Two reports released in the last few years summarize the relevant studies:<sup>3</sup>

*Research suggests that many mental health problems and disorders in children might be prevented or ameliorated with prevention, early detection, and intervention. Overall, prevention and early intervention efforts targeted to children, youth and their families have been shown to be beneficial and cost-effective and reduce the need for more costly interventions and outcomes such as welfare dependency and juvenile detention.*<sup>4</sup>

*What research tells us is that, for some young children, emotional and behavioral problems serve as a kind of red flag. Without help, evidence suggests that these emotional and behavioral difficulties may stabilize or escalate and negatively affect early school performance. In turn, early school performance is predictive of later school outcomes.*<sup>5</sup>

Evidence also exists that children are not receiving the care they need. According to the National Survey of Early Childhood Health, 94 percent of children had parents who were not getting the guidance or education they need as it relates to the screening of their child.<sup>6</sup> As Dr. Neal Halfon has noted: “A majority of problems go unrecognized, and most children do not receive treatment early in their life unless the problems are severe.”<sup>7</sup>

States, especially state Medicaid agencies, play an important role in supporting young children’s healthy mental development.

- Medicaid serves more than 25 percent of all children in the United States (and more than half of all poor and low-income children).<sup>8</sup> Children from poor families are at greater risk than those from non-poor families for poorer developmental outcomes, including those related to mental development.<sup>9</sup> In addition, income may be a more powerful influence on young children’s development than on older children’s development.<sup>10</sup>
- States also provide services through early intervention and other programs to those children who do not qualify for Medicaid.
- State Medicaid agencies have the flexibility to design benefits and implement policies and billing guidelines that support the identification and treatment of children with or at risk of delay in social and emotional development.<sup>11</sup>

The important role that Medicaid and other state agencies can play in improving the delivery of services that support young children’s social and emotional development is confirmed by the experiences of the five states that participated in the ABCD II Consortium. This report examines these states’ experiences from three perspectives:

1. *By the Numbers*: Each state measured system performance. This section describes the accomplishments and lessons learned in that effort.
2. *By Objective*: Each state developed and implemented a variety of strategies to improve the delivery of services that support children’s healthy mental development. This section describes the accomplishments and lessons learned in those efforts.
3. *Summary of Lessons Learned*: This section draws eight overarching lessons from the states’ experiences.

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## THE ABCD II PROGRAM

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The Assuring Better Child Health and Development (ABCD) program is sponsored by The Commonwealth Fund and administered by the National Academy for State Health Policy (NASHP). The program has been ongoing since 2000. ABCD II was a three-year initiative designed to strengthen primary health care services and systems that support the healthy mental development of young children, age birth to three. The program focused on preventive care of children whose health care is covered by state health care programs, especially Medicaid. The goals of ABCD II were to:

- Create models of service delivery and financing that promote high quality care supporting children’s healthy mental development, especially those with less intense needs (those who need only preventive care and those who are identified as “at risk” or in need of low-level intervention), and
- Develop policies and programs that assure that health plans and pediatric providers have the knowledge and skills needed to furnish health care in a manner that supports a young child’s healthy mental development.

### The ABCD II Consortium

The ABCD program established a state consortium in January 2004.<sup>12</sup> Five states (California, Illinois, Iowa, Minnesota, and Utah) implemented projects that sought to achieve the ABCD II program goals. Each project was led by the state’s Medicaid agency, which worked in partnership with other stakeholders. The state projects received grant funding and technical assistance and shared lessons learned with the other participating states.

The ABCD II Consortium was intended to improve the quality of children’s health care in the five consortium states, and to assist other states interested in ensuring young children’s healthy mental development by providing them with information on the work of the consortium states. The ABCD II initiative was based on the belief that while each state is unique, any state interested in this issue will face barriers similar to those encountered by the consortium states and will be able to benefit from the lessons learned by them.

### Overview of the State Projects

The five consortium states each implemented projects and policies to:

- Identify and foster provider use of formal screening tools that effectively identify social and emotional development concerns;
- Identify and fill service gaps that prevent children who need services from obtaining those services;
- Examine existing referral and assessment procedures to identify ways to more efficiently get those with a positive screen into the appropriate service system;

- Use stakeholder groups to help design interventions, including developing training curricula for providers;
- Identify and recommend changes and/or clarifications in state policies, procedures, and billing codes; and
- Improve screening for perinatal depression and resources for treatment of this condition, recognizing that a young child’s mental development is closely tied to his or her parents’ mental health.

**Table 1 Overview of state project objectives, ABCD II**

State	Objectives
California	<ul style="list-style-type: none"> <li>• Develop a service matrix to create a “roadmap to care.”</li> <li>• Identify policy and service delivery changes needed to improve access to infant mental health and developmental services.</li> <li>• Develop and implement a quality improvement project in primary care practices in two managed care organizations (MCOs).</li> </ul>
Illinois <sup>13</sup>	<ul style="list-style-type: none"> <li>• Increase the number of young children who receive comprehensive primary care that addresses social and emotional development, by               <ul style="list-style-type: none"> <li>▪ increasing the use of formal screening tools and referrals for intervention services, and</li> <li>▪ improving pediatric providers’ access to materials on early childhood and perinatal mental health.</li> </ul> </li> <li>• Develop mental health and developmental screening and referral guidelines and test them in four pilot communities before implementing them statewide.</li> </ul>
Iowa	<ul style="list-style-type: none"> <li>• Establish minimum clinical care standards for preventive and developmental mental health services.</li> <li>• Establish links to community resources to improve access to appropriate follow-up care.</li> <li>• Establish two pilot projects to test the standards and identify policy changes needed to support statewide implementation of the standards.</li> </ul>
Minnesota	<ul style="list-style-type: none"> <li>• Support primary care provider efforts to meet the needs of children who are at risk for delays in social or emotional development but do not meet the criteria for receiving services from the children’s mental health system by, among other things,               <ul style="list-style-type: none"> <li>▪ Conducting Continuing Medical Education (CME) on early childhood mental health;</li> <li>▪ Increasing the likelihood that children who qualify for care from the children’s mental health system are identified and referred to that system; and</li> <li>▪ Conducting two pilots to test strategies to improve care.</li> </ul> </li> <li>• Modify state policies to increase the identification and referral of children with delays.</li> </ul>
Utah	<ul style="list-style-type: none"> <li>• Increase screening for infant mental health concerns as part of EPSDT/well-child visits.</li> <li>• Increase interactions between and among Medicaid providers to ensure that providers direct children and their families to appropriate services.</li> <li>• Increase screening by pediatric practices for maternal depression during the postpartum period.</li> <li>• Increase the capacity of the current mental health system to serve infants and toddlers.</li> <li>• Conduct three learning collaboratives with pediatric practices to achieve these objectives.</li> </ul>

Each of the ABCD II projects adopted a similar approach for achieving its objectives. This approach was to:

1. Design interventions in conjunction with other stakeholders;
2. Pilot the interventions in a few practices or communities (these pilots were designed both to test and improve the intervention(s) and to identify any state policy changes needed to support expansion of the intervention); and
3. Initiate spread strategies by disseminating the findings from the pilots to others and implement needed policy improvements.

While each project followed this general approach, each did not necessarily proceed through these steps in this sequence. For example, states did not always wait until the pilots were complete to implement policy changes.

The five states worked to improve identification and treatment of young children with or at risk of social or emotional development delays – and there is evidence of success in each state. These states initiated policy changes designed to better support identification and treatment. They also worked with physician practices to test and spread their innovations. Finally, they all relied on partnerships to help them improve the quality of care delivered to young children.

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## BY THE NUMBERS: ACCOMPLISHMENTS AND LESSONS IN MEASURING SCREENING, REFERRAL, AND FOLLOW-UP

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A major thrust of the ABCD II program was measurement and evaluation of state programs to provide data to support improvements and spread. The five ABCD II states chose three common measures to evaluate their efforts in providing children with necessary assessment and intervention services. Each ABCD II state also undertook additional evaluation activities that provided key information on successes, barriers, and lessons learned for sustainability and spread. The three common measures were:

- The percent of children aged 0-3 **screened** using a standardized tool to identify concerns related to social and emotional development;
- The percent of children aged 0-3 identified with significant concerns who were **referred** for services to assess, prevent, or treat those concerns; and
- The percent of children aged 0-3 identified with significant concerns who **received follow-up services** to assess the need for developmental services, prevent delays, or treat delays, either in the primary care office or elsewhere.

Although the states agreed on common measures, the interventions they developed were different, as was the environment in which each intervention was implemented. For example, although all introduced screening with a standardized tool into pediatric practice:

- California and Utah worked to implement standardized, validated screening tools in pilot physician practices;
- Iowa worked to standardize the surveillance process (through use of the Iowa Child Health and Development Record) and incorporate use of a screening tool into physician practices for those children identified at risk;
- Illinois implemented screening in pilot ‘communities’ that engaged physician practices and early intervention providers; local health departments, including family case management and WIC; community mental health agencies; and local school districts.
- Minnesota supported screening in a variety of venues (e.g., physician practices, Head Start) but only measured the effect of the intervention in two physician practices.

Similarly, state approaches to follow-up referral and treatment were different. Minnesota attempted to increase resources for treatment in the community (by implementing a new benefit) and in the practices participating in the demonstrations (by co-locating mental health providers with the practices). The other four states fostered linkages among practices and referral resources to maximize use of existing resources.

Lastly, each state used resources they had available – which varied – to support the measurement efforts. Therefore, the data sources used by each state to measure screening, referral, and treatment were different and the inclusion and exclusion of children in the data were specific to each of the states’ goals.

**Table 2 Summary of rates of screening for potential delays in social and emotional development in demonstration sites**

State	Description of Numerator and Denominator	Source of Data for Measures	Screening Rate	
			Pre	Post
California	<p><b>Numerator:</b> Number of children screened with the Ages and Stages Questionnaire® (ASQ) or Ages and Stages Questionnaire:® Social-Emotional (ASQ-SE) as part of a specified well-child visit.</p> <p><b>Denominator:</b> Number of children who had a 12, 18, or 24 month well-child visit during the intervention period.</p>	<p><b>Pre-intervention:</b> Provider report that no formal tool was used.</p> <p><b>Post-intervention:</b> Practice-level information including appointment books, copies of completed screening tools and referral forms, provider-completed tally sheets.</p>	0%	94%
Illinois	<p><b>Numerator:</b> Number of children screened with the ASQ-SE as part of a specified well-child visit.</p> <p><b>Denominator:</b> Number of children who had a 6-, 9-, 18-, or 24-month well-child visit during the intervention period at the practice-based pilot.</p>	<p><b>Pre-and Post-intervention:</b> Physicians completed a card for each well-child visit indicating whether the child was screened and, if so, whether they used the ASQ:SE, an informal checklist, or clinical judgment only. They began this practice one month prior to the training and continued it for 13 months following the training.<sup>14</sup></p>	Practice centered site-only (≈ 0%) 2 ASQ:SE Screens	(≥43%) 150 ASQ:SE Screens
Iowa	<p><b>Numerator:</b> Number of children adequately screened for potential social or emotional developmental delays with either the Iowa Child Health and Development Record (Iowa-CHDR) or a standardized tool as part of a specified well-child visit.</p> <p><b>Denominator:</b> Number of children under age 3 who had a well-child visit from one of the pilot practices during the intervention period.</p>	<p><b>Pre- and Post-intervention:</b> Chart review – 400 charts to collect baseline information and 400 to collect post-intervention information.</p>	53%	93%
Minnesota	<p><b>Numerator:</b> Number of children age birth to five who had a targeted well-child visit <i>and</i> who were screened with the ASQ-SE during that visit.</p> <p><b>Denominator:</b> Number of children age birth to five who had a well-child visit and belonged to the intervention group (defined by day of appointment or physician).</p>	<p><b>Pre-intervention:</b> Provider report that no formal tool was used.</p> <p><b>Post-intervention:</b> Practice-level information:</p> <ul style="list-style-type: none"> <li>Urban practice: copies of completed and scored ASQ-SE</li> <li>Rural practice: electronic medical records, scheduling system, and company that provides e-platform for screening</li> </ul>	Urban practice 0%	93%
Utah	<p><b>Numerator:</b> Number of children in the target age group (&lt;1 (infant screen) or 2-3 (toddler screen)) who had a well-child visit <i>and</i> who were screened with a standardized tool during that visit.</p> <p><b>Denominator:</b> Number of children in the target age group who had a well-child visit.</p>	<p><b>Pre-intervention:</b> Provider report that no formal tool was used.</p> <p><b>Post-intervention:</b> Practice-level information: monthly audit form completed based on a sample of charts documenting the care provided to children who had a well-child visit in the previous month.</p>	Infant Screen pilots 0%	76%
			Toddler Screen pilots 0%	84%

Thus, although each state measured the same aspects of their work – screening, referral, and treatment – the resulting measures cannot be combined or compared across the five states. However, the individual state results on these three measures, taken as a whole and in conjunction with findings from other evaluative activity (e.g., focus groups) show that the projects had a measurable impact.<sup>15</sup> Finally, a secondary purpose of the evaluation activity was to test the value and feasibility of the measures, and develop strategies for collecting the data needed to produce the measures that others could adapt. Information on those lessons learned has been presented in detail in a previously released NASHP report<sup>16</sup> and is summarized at the end of this section.

## **Summary of Results: Screening for Social and Emotional Development Concerns**

The screening rate in each practice that participated in the demonstrations increased after the innovations were implemented (Table 2). Combining this finding with the evidence in the literature that physicians who use a formal screening tool will more effectively identify children with developmental needs than those who do not use such a tool suggests that the demonstration sites improved identification of young children at risk for delays in social and emotional development.

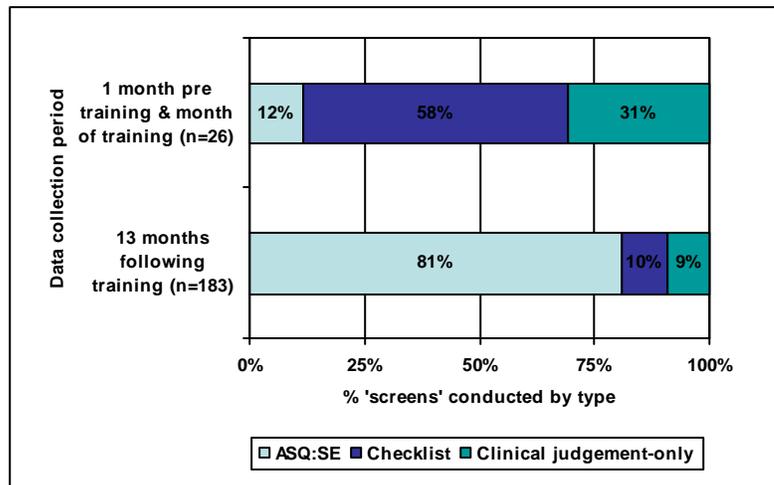
All of the ABCD II states also undertook additional qualitative and quantitative evaluation activities that provided key information on successes, barriers, and lessons learned for sustainability and spread of screening by primary care providers. For example:

- Illinois saw, after the training in the practice-based demonstration community, a shift from using clinical judgment alone to using clinical judgment with a standardized tool (Figure 1).
- Illinois, Iowa, and Utah worked to implement screening for perinatal and/or maternal depression in pediatric offices. These states reported that the pediatric practices did not use a formal tool to screen mothers or parents for depression, but that after working with the practices the practices achieved screening rates of
  - Illinois, practice centered site: 39 percent of mothers whose child had a 1-, 4-, or 9-month well-child visit.
  - Iowa: 62 percent of the 400 children’s charts reviewed documented adequate screening for parental depression either with the Iowa-CHDR or another validated tool.
  - Utah: 89 percent of mothers whose child had a well-child visit were screened for depression.
- Illinois found that the number of providers billing for conducting a perinatal depression screening rose from 299 to 492 between State Fiscal Years (SFY) 2004 and 2006.
- Iowa conducted two focus groups comprised of physicians, nurse practitioners, and registered nurses in each of the state’s two ABCD II demonstration sites. Before implementing screening, members of these groups recognized the potential value of

standardized surveillance and screening but expressed concern about time and work required to complete the screens. After implementation, these groups agreed that there was less additional work than they had expected, that the questions were useful reminders, and that the process improvements helped them more consistently ask about specific, important, risk factors.

- Utah used qualitative feedback from its learning collaborative process to modify its strategy for providing pediatric practice teams with information about available community resources. The state also received positive feedback from practitioners and parents involved in the learning collaborative indicating that parents had become more involved and knew what questions to ask and that screening was saving pediatricians time and was more comprehensive than previous approaches.

**Figure 1 After training, physicians in the Illinois practice-based demonstration were more likely to use a validated screening tool than a checklist or clinical judgment only**



## Summary of Results: Referral and Follow-up Services

It is much more difficult to assess the meaning of the referral and treatment rates in the demonstration sites due to a wide variation in rates. Also, some sites were not able to produce all of these measures due to lack of resources to conduct measurement, lack of available data about screening findings in the charts and/or claims data, and difficulties in obtaining information about whether the children referred for follow-up services received those services.<sup>17</sup> The results of these measures, especially in conjunction with the qualitative information gathered by the ABCD II projects, highlights the difficulty of not only linking primary care practices with resources for follow-up services, but also that of measuring the effectiveness of those links.

At this time, there is no gold standard for the appropriate rates of referral, assessment, and treatment for children who are potentially at risk for delays in social or emotional development. These rates vary depending on the tool used, the internal resources a practice may have, and the available community resources. In particular, different practices within the ABCD II states used different screening tools. Although most used the Ages and Stages Questionnaire.<sup>®</sup> Social/Emotional (ASQ:SE), some used the Ages and Stages Questionnaire<sup>®</sup> (ASQ) and Parents Evaluation of Developmental Status (PEDS), among other tools. Those practices that used a screening tool that screens for potential delays in multiple domains *including* the social and emotional domains are likely to identify more children as potentially at risk (and thus have

higher rates of referral and treatment) than those that used tools designed to screen *solely* for delays in social and emotional development. However, some relevant figures are as follows:

- A 2004 examination of the literature found that, “Studies have shown that 9 percent to 21.4 percent of all children will have a mental development issue.”<sup>18</sup>
- In 1988, about 16 percent of children in the U.S. who were under age 18 were found to have had one or more developmental disabilities at some point in their lives, and more than 6 percent had an emotional or behavioral health problem that lasted at least 3 months;<sup>19</sup> and
- In 2006, about 2.4 percent of children in the U.S. participated in early intervention.<sup>20</sup>

The five consortium states provided data that could be used to calculate referral rates based on the number of children screened; the resulting rates ranged from 2 to 10 percent of children screened.

- California: about 10 percent of the children screened were referred outside the practice for follow-up services.
- Illinois: about 6 percent of the children screened by the practice-based site were referred to early intervention.
- Iowa: the state project reported separate referral data for children potentially at risk for delays in four domains: general development, social and emotional development, family stress, and parental depression.
  - Examining the data across the four domains finds an overall baseline referral rate of at least 5 percent of the 400 children in the sample and a post-intervention rate of at least 6 percent of the 400 children in the sample.
  - Looking only at the social and emotional domain finds a baseline referral rate of about 2 percent of the children who were adequately screened (i.e., screened with either the Iowa Child Health and Development Record (Iowa-CHDR) or a standardized tool) and a post-intervention rate of about 3 percent of the children who were adequately screened.
- Minnesota: the urban practice referred about 2 percent of the children screened and the rural practice referred about 14 percent of the children screened.
- Utah: about 5 percent of the infants and toddlers screened were referred outside the office for care.

The five ABCD II states sought to assess system capacity and functioning by identifying the number of children in their samples who received follow-up services. To create the most complete picture possible they sought to identify both (1) the number of children who were referred for follow-up services *and* who received those services, and (2) the number of children who received follow-up services within the primary care practice. California, Minnesota, and Utah were able to capture this data (see Table 3).

**Table 3 Demonstration site data on referrals and follow-up services indicates difficulties in accessing/tracking follow-up services**

	Number identified by screen as potentially 'at-risk'	Number referred	Number received follow-up from primary care provider (PCP) or PCP's staff	Number received follow-up from a source other than the PCP/PCP staff <sup>21</sup>
California	67	27	32	13
Illinois (practice-based demonstration)	12	9	45-59 <sup>22</sup>	Not reported
Iowa <sup>23</sup>	64-137	25-66 (includes in-office follow-up)	Included in # referred	Not reported
Minnesota (rural and urban practice)	Rural: 32 Urban: 18	Rural: 41 Urban: 4	Rural: Not reported Urban: Not reported	Rural: 27 Urban: 3
Utah (infants and toddlers)	Infants: Not reported Toddlers: 22	Infants 13 Toddlers: 17	Infants: Not reported Toddlers: 14	54 of 216 children's charts reviewed documented a referral <sup>24</sup>

Since the sample size is limited, data in Table 3 are presented as numbers and not rates – and the data must be interpreted with caution.<sup>25</sup> Clearly, there is wide variation in data examined. It is likely that there are multiple reasons for this variation, including clinical judgment by the primary care provider that a child identified as potentially at risk for delay does not need follow-up services. Sources of variation in the 'in-office' numbers include differences in the definition of 'in-office follow-up' services among participating practices, differences in the resources available within each practice, and the comfort of each physician in addressing social and emotional development needs. Similarly, there are multiple reasons for the variation among the numbers related to provision of follow-up services by resource agencies outside the practice.

These numbers do, nonetheless, indicate clear difficulties in effectively linking families, practices, and resource agencies. The qualitative information gathered by project staff indicate that they are at least partially due to lack of resources for follow-up services, ineffective referral pathways from the primary care provider to the local resources, and/or ineffective communication on services delivered between the resource agencies and primary care providers.

## **Lessons Learned about Measuring Screening, Referral, and Treatment**

Challenges ABCD II states faced included difficulty defining measures (numerators and denominators), implementing data collection strategies that proved more difficult than anticipated, and linking information about services provided by resource agencies to the child's primary care provider. At the same time, they found these challenges are not insurmountable:

- Voluminous data is not necessary, but the data must be valid, reliable, and sensitive to the intervention in order to make the case for policy change. Qualitative data examining the experiences of families, physicians, and resource agencies may be as valuable as quantitative data for identifying and promoting policy and practice change.

- The size of the data sample needed to produce a measure will vary based on the measure being produced. For example, a measure of screening as part of a well-child visit requires less data than a measure of referral or receipt of follow-up services – as almost all well-child visits by children of a specific age will include a screen and few of those visits will result in referrals and/or follow-up.
- The amount of data needed to produce a measure will also vary based on the practice site implementing the intervention. For example, practices with multiple physicians may have variation among physicians, and therefore more data may be needed to produce a reliable estimate of the care provided.
- It is important to remember that a measure has a numerator and a denominator. The numerator includes children who received the intervention of focus and the denominator includes children who should have received that intervention.
- Detailed measurement strategies must be developed in the early planning phases of the project. People and resources must be identified to carry out the measurement activities, and the data collection strategy should be piloted to ensure it is feasible and anchored to the intervention.
- Participating providers must understand the measurement strategy and view it as integral to reaching their own goals of improving the care they provide to their patients. Ideally, the data should be periodically reported to participating practices (physicians and office staff) so that they see the results of their efforts.
- There will be turnover both in project staff and practice staff who are responsible for producing the measures. Plan for it.
- Practice level data includes more than medical charts. It extends to appointment books, copies of screening instruments, and other documents maintained by the practice.
- Referral rates are important to assess but difficult to measure. Two referral rates can be valuable to calculate:
  - The percent of children screened who were referred provides information that can help policy makers estimate the overall number of children who will be referred and for whom additional services will be needed.
  - The percent of children identified by the screening tool as potentially at risk who were referred provides information to help practices assess how well the intervention is working in their practices.
- Claims data can serve as a source of data for measurement. There are, however, potential difficulties with the time between provision of service and receipt of claim, defining the numerator and denominator in terms of the coding used on claims, and making sure that providers actually produce claims using the coding that evaluators anticipate they will use. Most of these issues can be addressed by piloting the algorithm that will be used to produce the numerator and denominator – or at least examining some of the claims for well-child services submitted by the providers whose performance will be measured.

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## **BY OBJECTIVE: STRATEGIES FOR SUPPORTING AND FACILITATING IMPROVEMENTS IN THE DELIVERY OF DEVELOPMENTAL SERVICES**

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The five ABCD II consortium states worked toward improving identification and treatment of young children with, or at risk of, social or emotional development delays by addressing barriers they identified within their states. They initiated policy changes designed to better support identification and treatment. Finally, they all relied on partnerships to help them improve the quality of care delivered to young children.

This section of the paper examines key accomplishments in six areas:

1. Recommending screening tools for use by pediatric clinicians,<sup>26</sup>
2. Working with clinicians to integrate screening tools into their practices,
3. Improving referrals and access to follow-up services,
4. Identifying and addressing policy barriers,
5. Partnering to achieve goals, and
6. Financing improvements in care during difficult times.

### **Recommending Screening Tools for Use by Pediatric Clinicians**

A literature review by NASHP staff found indications that a low percentage of young children in need of care to support their mental development are identified, even by physicians.<sup>27</sup> Several studies also indicate that using a developmental screen “improves the accuracy with which children are identified when compared with decisions based only on clinical judgment.”<sup>28</sup> Further, there are indications that pediatricians do not regularly use standardized tools.<sup>29</sup>

Finally, there is growing consensus on the important role that primary care providers, who see the child on a regular basis and can thus assess development over time, can play in recognizing potential developmental problems, including social and emotional development problems. The American Academy of Pediatrics (AAP) has noted: “The primary care practitioner's office is the only place where most children younger than five years are seen and is ideal for developmental and behavioral screening.”<sup>30</sup>

The ABCD II consortium states each identified validated screening tools and encouraged providers to use them. State project leaders drew clinicians and other stakeholders together to provide input on the tools under consideration and the factors that states should consider when selecting tools. To support this effort, NASHP produced a technical assistance paper that summarized the factors states might want to consider in assessing tools. The paper also provided relevant information about the tools used most often to screen for potential delays in mental development.

**Table 4 Screening tool recommendations**

State	Recommended Tool(s)	How recommendation is communicated to providers
California <sup>31</sup>	<ul style="list-style-type: none"> <li>• Ages and Stages Questionnaire<sup>®</sup> (ASQ)</li> <li>• Ages and Stages Questionnaire:<sup>®</sup> Social-Emotional (ASQ:SE)</li> </ul>	<ul style="list-style-type: none"> <li>• On-site training for pilot sites and others considering work in this area</li> <li>• Development of a modularized training curriculum</li> </ul>
Illinois	<p>Will reimburse for administration of 21 different screening tools, but recommends:</p> <ul style="list-style-type: none"> <li>• ASQ</li> <li>• ASQ:SE</li> </ul>	<ul style="list-style-type: none"> <li>• Medicaid provider handbook and managed care contract</li> <li>• Letter to providers from the Illinois Chapter of the American Academy of Pediatrics (AAP)</li> <li>• Website: <a href="http://www.hfs.illinois.gov/handbooks/chapter200.html#cmh200">www.hfs.illinois.gov/handbooks/chapter200.html#cmh200</a></li> <li>• Training for pilot sites</li> <li>• Training for Medicaid MCO network providers and pediatric/family practice sites with CME credits</li> <li>• Regular feedback to providers indicating the extent to which claims data indicates the provider is using a screening tool</li> </ul>
Iowa	<p>Iowa Child Health and Development Record (Iowa-CHDR),<sup>32</sup> or</p> <ul style="list-style-type: none"> <li>• ASQ:SE</li> <li>• Brief Infant Toddler Social and Emotional Assessment (BITSEA)</li> <li>• Child Development Review</li> <li>• Infant Development Inventory</li> </ul>	<ul style="list-style-type: none"> <li>• Training for pilot sites</li> <li>• Website: <a href="http://www.iowaepsdt.org/ScreeningResources/Standards.htm">www.iowaepsdt.org/ScreeningResources/Standards.htm</a></li> <li>• Statewide training of health care providers with state resources</li> </ul>
Minnesota	ASQ:SE	<ul style="list-style-type: none"> <li>• Managed care contracts</li> <li>• On-site CME course for pilot sites</li> <li>• As part of other trainings conducted by the state and other organizations for primary care and mental health professionals</li> <li>• Website: <a href="http://www.health.state.mn.us/divs/fh/mch/devscrn">www.health.state.mn.us/divs/fh/mch/devscrn</a></li> </ul>
Utah	<ul style="list-style-type: none"> <li>• ASQ</li> <li>• ASQ:SE</li> <li>• Parents' Evaluation of Developmental Status (PEDS)</li> <li>• Temperament and Atypical Behavior Scale (TABS)</li> </ul>	<ul style="list-style-type: none"> <li>• Medicaid provider handbook</li> <li>• Letter to providers from Medicaid</li> <li>• Learning collaboratives conducted by UPIQ (clinician-led stakeholder group described later in this document)</li> </ul>

Each state sought to identify tools that would:<sup>33</sup>

- identify those children who may need behavioral developmental care,
- avoid mislabeling many children as the result of inaccuracies,
- differentiate between those in need and those not in need of follow-up services,
- be quick and inexpensive to administer, and
- provide information that could lead to action.

In all five states, the decision about which tool(s) to recommend was not made at a single meeting or by a single person. In all cases, the screening tools were selected by consensus among the members of standing committees that were formed to support the ABCD II effort. These committees were made up primarily of state project staff and clinicians. ABCD II states felt that clinician involvement in the process was necessary not only to produce the best decision but also to improve the likelihood that providers would follow the recommendations.

As Table 4 shows, most of the recommended tools are completed by the parent(s). The Ages and States Questionnaire<sup>®</sup> (ASQ), Ages and Stages Questionnaire: Social-Emotional (ASQ:SE), Brief Infant-Toddler Social and Emotional Assessment (BITSEA), Child Development Review, Infant Development Inventory, Parents' Evaluation of Developmental Status (PEDS), and Temperament and Atypical Behavior Scale (TABS) are all designed to elicit information from the parent rather than through observation by the clinician.

Consortium states were attracted to these tools for the same reason. They are completed by parents either before the appointment or while waiting to see the child's doctor. This means that administering and scoring these tools takes little of the physician's (or other staff member's) time. In addition, some physicians who have used tools that elicit information from the parent report that these tools can help parents identify and raise concerns and can lead to a productive discussion between parent and provider.<sup>34</sup>

All five states undertook efforts to communicate these recommendations to providers beyond those involved in pilot projects, and in all states clinicians were involved in efforts to convey the recommendations. The states relied on clinicians to review provider handbook and Web site language, send out letters supporting and reinforcing the recommendations, and otherwise present information on the recommendations to their colleagues. Clinicians were able to help the states communicate more effectively to a clinician audience than the states could on their own.

### **State example**

#### *Illinois: Partnering to promote use of screening tools*

State agencies (especially Medicaid agencies) have sometimes found it difficult to encourage providers to use validated screening tools. This is due, in part, to a perception among providers that Medicaid is a funding source, not a source of information on best practices in providing care.

To overcome this barrier, the Illinois Department of Healthcare and Family Services, which administers Medicaid programs, developed active partnerships with the Illinois Chapter of the

American Academy of Pediatrics (ICAAP) and the Illinois Academy of Family Physicians (IAFP) to encourage primary care providers to use screening tools. The state invited these provider organizations to be an integral part of policy development. In addition, these organizations helped the department effectively inform clinicians of the new policies and supported clinicians in implementing new practices in response to the policies.

In February 2004 the state sent providers a notice clarifying that they could bill for conducting a screen in addition to a well-child exam, and offered guidance about the specific tools for which providers could receive reimbursement. ICAAP provided the state with input on the provider notice, was identified in the notice as a resource for more information and technical assistance on developmental screening or risk assessment, and published an article in its Spring 2004 newsletter supporting the policy change. ICAPP reported that as a result of this notice it provided technical assistance to many providers regarding billing, developmental screening tools, and referral resources for children with developmental concerns.

In November 2004, the state released a provider notice clarifying its coverage of screening for maternal depression (an issue it addressed as part of its ABCD II project). In conjunction with the notice, ICAAP, the American College of Obstetricians and Gynecologists (ACOG), and the IAFP sent a letter to all their members endorsing the use of the screening tool and containing information about the policy clarification. The endorsement was a very effective method for encouraging providers to adopt maternal depression screening. ICAAP also created a Web page on maternal depression and social-emotional resources to complement this effort ([www.illinoisap.org/DevelopmentalScreening.htm](http://www.illinoisap.org/DevelopmentalScreening.htm)).

It should be noted that other states seeking to develop similar partnerships with provider organizations may face hurdles if these organizations are not active or if the Medicaid agency has no history of working collaboratively with such organizations.

### **Lessons learned about recommending screening tools to primary care providers**

The experiences of the ABCD II states suggest that certain strategies can help to increase the likelihood that providers will attend to recommendations to use a validated screening tool:<sup>35</sup>

- Clinicians are more likely to follow the recommendations when they are consulted in the development stage, both about what tools to recommend and the language used to make the recommendation.
- Practices are more likely to use tools that are inexpensive and take little staff time to complete and score and that they believe are valid and accurate.
- Clinicians are more likely to use tools they believe accomplish more than screening; for example, tools that help parents organize questions prior to an appointment or that help parents learn more about child development.
- Providers are more likely to follow recommendations if they are aware of them – and not all providers read Medicaid handbooks or other communications from the agency.

- Clinicians are more likely to listen to recommendations from their peers or recognized clinical experts than to heed recommendations from a state agency.
  - An endorsement of the agency’s recommendations by the professional organizations that represent physicians increases the likelihood that clinicians will adopt, implement, and sustain the recommended changes.
  - Active collaboration with state professional societies to develop and implement recommendations may be even more effective than an endorsement, as these societies can offer additional venues for informing, help ensure that recommendations are stated in effective language, and offer technical assistance to members. All of these activities help demonstrate to providers the importance that their professional peers place on taking the recommended actions.
- Providers are more likely to follow recommendations when they receive feedback on performance.

## **Working with Clinicians to Integrate Screening Tools into their Practices**

The five ABCD II states recognized that simply identifying tools and communicating these recommendations to primary care providers would, by itself, increase pediatric clinician use of validated tools. Providers are faced with numerous demands on their time and may have to conduct other screens. Even though they recognize the value of using a validated tool, many may not do so because they believe that they do not have enough time.<sup>36</sup>

The ABCD II states found that provider practices need support to redesign office systems and/or practice flow to incorporate a new service. Making these changes requires time and expertise. States found ways to connect practices with experts outside their agencies, but as will be described later in this section, in Iowa the public health agency took on much of this role.<sup>37</sup>

ABCD II states helped providers integrate screening into their practices in several ways. Much of this help focused on assisting practices in the pilot sites, so that physicians participating in the pilots could serve as role models for other practices. These pilots demonstrated that providers can integrate a validated screening tool into their practice without a major increase in administrative costs, and can improve patient care.

- California contracted with a physician who has experience in integrating screening tools into a large pediatric practice as well as with the California Institute for Mental Health to develop curriculum materials that were tested in the pilot sites and designed to provide ongoing individual technical assistance to the sites.
- Illinois’s ICAAP and IAFP took the lead in helping providers integrate screening into their practices. Their representatives co-chaired the Illinois ABCD II project’s Provider Information, Curriculum, and Training Committee. They worked with the state to develop and conduct initial training for each pilot site on screening and also offered ongoing assistance to these practices. These groups modified the training based on the pilot experience and continue to offer it to other practices.

- Minnesota addressed concerns about lack of time through technology. The state worked with a private company to develop a version of the ASQ:SE that is administered electronically on a hand-held device. Parents in the pilot sites completed the screen on the device while waiting to see their child’s primary care provider. The device is docked into a station that scores the screen. The device can print the results to paper or send them to an electronic medical record. The print-out also offers the provider suggestions for anticipatory guidance and (if needed) follow-up.
- Utah conducted three provider learning collaboratives that were designed to improve screening for social emotional developmental delays and maternal depression. The state provided ongoing, individualized technical assistance to the practices that participated in the collaboratives. (This approach is discussed in more detail on page 28.)<sup>38</sup>

## State example

### *Iowa: Supporting change within primary care practices*

Providers frequently mention that limitations on their time and referral options can be a significant barrier to using a validated screening tool. Iowa undertook a comprehensive effort to work directly with providers to help them address these barriers. The Bureau of Family Health within the Department of Public Health<sup>39</sup> led this effort under a contract with the Medicaid agency. Iowa’s ABCD II project required each pilot site to identify both a physician (physician champion) and a nurse or office manager to lead the pilot. Iowa ABCD team members then supported these leaders as they integrated screening (and referral/treatment) into their practices.

The physician champion was responsible for leading the staff involved in the project and supporting the overall effort. These champions signed a memorandum of agreement outlining their and their practice’s responsibilities in the pilot. Each physician champion was supported by a physician mentor who was a member of the committee that planned the pilots and had experience in using screening tools in a primary care setting. The mentors provided both consultation and support to the physician champions as they worked to change systems and spread that change in their practices. Project staff reported that the mentor physician volunteered about four to six hours per month to this activity. They also reported that this structure was most effective when the two physicians had the same specialty. Iowa’s ABCD II staff reported that physicians of the same specialty “speak the same language and have shared experiences” and “understand office cultures and what is needed for change.”

The nurse/office manager served as the lead for many of the operational tasks needed to support routine screening in the practice, such as scheduling trainings, identifying and implementing changes to filing procedures and paperwork, facilitating the evaluation of the pilot, maintaining contact with the ABCD II team, and working with community partners. The nurse/office manager did not necessarily conduct all of these tasks, but was responsible for seeing that they got done. The nurse/office manager was supported by staff employed by the Bureau of Family Health. The state staff provided training and was available to consult and problem solve on a daily basis.

Iowa's Department of Public Health also tasked the local coordinator of the state's Early Periodic Screening, Diagnosis, and Treatment (EPSDT) services with helping practices identify and access local resources that can provide services that are beyond the scope of the primary care practitioner. EPSDT care coordinators are employees of local agencies under contract with the Iowa Department of Public Health and provide information and coordinate care to support the EPSDT program. Many of these activities and much of the knowledge needed to support the EPSDT program were also ideal for supporting the ABCD II efforts. Among other activities, the EPSDT care coordinator may help set up another level of screening or assessment, child or family specific services, transportation to services, additional medical appointments, and child care. Anyone from the practice may call the EPSDT coordinator (as can parents).

### **Lessons learned about helping primary care providers integrate use of a screening tool into their practices**

The experiences of the ABCD II states suggest that several elements are important in helping primary care providers integrate screening into their practices.

- A physician needs to lead the effort in the practice, and the support of other physicians in the practice is critical to widespread adoption of the new procedures. Gaining physician support for these changes is likely to depend on the perceived benefits to the child and to the practice.
- In some practices, nonphysician staff will conduct the screening, and in all practices administrative and nursing staff is critical to identifying and implementing changes to office procedures to help ensure that screening becomes routine. These staff need as much support and training as the physicians.
- Physicians listen better to other physicians, so a professional organization's endorsement of routine screening with a validated tool is effective in promoting change. Direct communication between a physician who is considering implementing routine screening and a physician who has done so successfully appears to be even more effective.
- It is important to offer ongoing support, not just a one-time training session. As practices implement screening, they are likely to encounter unforeseen problems. Having access to someone who can help them work through those problems and concerns will encourage them to do so instead of giving up.

### **Improving Referrals and Access to Follow-up Services**

The five ABCD II states recognized that lack of follow-up services (full assessments and interventions) is a barrier to ensuring young children's healthy mental development. States reported that clinicians may be reluctant to screen children because they are not familiar with the resources available for treatment or how to access those resources once a need is identified. This is particularly true for those children with less intense needs.

ABCD II states took steps to:

- support primary care providers in providing treatment,
- identify and fill gaps in the treatment service system,
- improve the process for obtaining services, and
- improve provider knowledge of how to access care.

## State examples

### *Two strategies for facilitating referrals: Utah and Illinois*

The ABCD II states, exemplified by Utah and Illinois, took two approaches to facilitating referrals.

**Utah** - Utah used its provider learning collaboratives as a venue for both increasing provider awareness of treatment resources and facilitating the development of referral systems between the participating practices and local resources. The second half of day-long learning collaborative sessions was devoted to planning for care referrals. In this half of the meeting, the participating pediatric practice staff were joined by representatives of local resource agencies, including the local mental health agency and early intervention service providers. State staff provided an overview of all the local resources available and whom to contact. Then each practice met with staff members from multiple local resources to develop referral pathways. The practice plans for screening and referral were then presented to all collaborative participants at the end of the session. Utah's ABCD project staff reported that the personal connection between the representatives of the practices and the resource agencies developed during these in-person meetings were important to facilitating referrals.

State and UPIQ<sup>40</sup> staff members continued to support these developing relationships by meeting with the practices on a regular basis to discuss the referral process and how it could be improved. They also worked with some of the local resource agencies to change some of their practices that discourage referrals, such as failing to report back to the practice on the outcome of referrals.

**Illinois** - Illinois established a partnership between each of its ABCD II pilot sites<sup>41</sup> and the local Early Intervention intake office (referred to as Child and Family Connections, or CFC). The CFC in each of the pilot communities facilitated the provision of further assessment services to all children who did not pass a screen conducted by an ABCD pilot site. They directly provided treatment to those families whose children are eligible for Early Intervention services, and connected those with less intense needs to other resources in the community. In addition, the CFC did not typically re-screen a child who scored positively on the ASQ:SE; instead, at follow-up visits, a CFC staff member simply reviewed the existing screen with the parent, eliminating the need for the parent to fill out the form a second time.

### *Minnesota: Creating early childhood mental health services in the community*

The ABCD II states reported that one of the barriers to treating young children with delays in social or emotional development is that the services do not exist or there is a lack of mental health providers qualified to treat young children. In addition, children, especially young

children with less intense needs, may not qualify for the services that do exist. Minnesota developed a multi-faceted approach to address these concerns.

***Increasing the capacity of primary care practices*** – Both of Minnesota’s pilot sites co-located mental health providers (psychiatric nurse and licensed mental health professional) within the primary care practice. Any child who was identified with a possible delay in social, emotional, or mental development was seen by the mental health provider during the well-child visit. Minnesota believes that this approach not only facilitated access to care from the mental health professional but also enabled the primary care providers to consult with the provider and offer more effective care for those children with less intense needs.

***Improving diagnosis*** – Children must have a diagnosis, usually a *Diagnostic and Statistical Manual of Mental Disorders-IV* (DSM-IV) or International Statistical Classification of Diseases and Related Health Problems (ICD-9)<sup>42</sup> diagnosis, to qualify for most treatment services. However, “Existing systems do not adequately reflect or describe disorders of infancy and toddlerhood (especially developmental and relational issues).”<sup>43</sup> Therefore, children who may need care may be prevented from accessing it because they do not have a diagnosis. The ZERO TO THREE organization has developed a diagnostic classification specifically designed for young children (the DC: 0-3). As part of its ABCD II project, Minnesota’s Medicaid agency adopted a policy that allows providers to use the DC: 0-3 to diagnose young children and then to crosswalk these diagnoses to the DSM-IV and ICD-9 codes that are accepted for billing. Minnesota’s Children’s Mental Health Agency has reinforced these efforts by training more than 306 clinicians and others in the use of the diagnosis codes and crosswalk.

***Implementing a new benefit*** – In 2003, Minnesota Medicaid was authorized to implement a new benefit, Children’s Therapeutic Services and Supports (CTSS). Minnesota’s ABCD II staff guided the implementation of this benefit. CTSS is available to children who have been diagnosed with an emotional disturbance of any severity and includes a wide range of mental health services, including skill building services for the child and the child’s family. CTSS services can be provided both by traditional mental health providers and a variety of approved social service agencies, including Head Start.

## **Lessons learned about improving access to referral and follow-up services**

The experiences of these states shows that several actions can improve access to treatment services:

- States can identify and inform primary care providers about existing resources and give providers an opportunity to meet with representatives of the local agencies that provide treatment.
- Identifying an individual, either external or internal to the practice, to facilitate referral improves the process and helps address clinician concerns that the children they identify with potential needs will be able to access assessment and follow-up services.
- States can inform resource agencies about what they can do to encourage primary care providers to make referrals to the agency, such as report back to primary care providers

on the result of a referral. This is even more effective when primary care providers communicate this information directly to the agency.

- States can use Medicaid to create services for children with less intense needs.

## Identifying and Addressing Policy Barriers

As expected, the ABCD II states found that some existing Medicaid policies discouraged identification and treatment of young children with or at risk for delay in social or emotional development.

Promoting policy improvement was an important element of the ABCD initiative. These state projects were designed to test tools and strategies for improving young children's healthy mental development *and* to identify and address state policy barriers. The first ABCD initiative found that state policy changes facilitated and sustained broad change after the project ended.<sup>44</sup>

ABCD II states changed and clarified policy to promote developmental screening and established formal methods for continuing to identify and make needed changes. Most of these changes were identified during pilot development, and several have already been described. In addition:

- Illinois established a policy committee as part of its ABCD II project. This committee was charged with reviewing the pilot experience and other sources of information to develop recommendations for changing state program policies to better promote young children's healthy mental development. Illinois made many significant policy changes during the ABCD II project. For example, the state:
  - Clarified Medicaid policies to encourage physicians to bill separately for developmental screening and assessment (instead of including these services as part of a bundled rate) to improve tracking of these services and allow better measurement of performance.
  - Clarified early intervention policies on eligibility. The early intervention system has stated that it considers major depression within the first year postpartum to be a "severe mental disorder" as described in early intervention eligibility criteria, thus qualifying a child whose mother has been diagnosed with post partum depression for early intervention services.
  - Changed policy to require family case management agencies that are enrolled as medical providers to conduct objective developmental screenings for all infants and pregnant women who are beneficiaries of Department of Healthcare and Family Services medical programs.
  - Included objective developmental screening of young children as a quality indicator for a new Primary Care Case Management (PCCM) model for All Kids, a program that assures affordable health coverage for all children in Illinois. Primary care providers (PCPs) will be monitored for periodic objective developmental screenings, including objective screening for social-emotional development. PCPs will be provided with ongoing feedback using administrative (claims) data identifying those children in need of screening.

- Utah initiated several policy changes to support young children’s healthy mental development. The state:
  - Changed its EPSDT provider manual to recommend a menu of screening tools (ASQ, ASQ:SE, PEDS, TABS) for use during EPSDT well-child visits. The provider manual also includes a recommended screening schedule.
  - Clarified inconsistencies in Medicaid and Division of Substance Abuse and Mental Health policies. Medicaid billing policies had allowed community mental health centers to provide services to children without the presence of a DSM-IV diagnosis, treating or ameliorating a condition identified in an EPSDT screen. However, the mental health agency’s audit policies had required the presence of a DSM-IV diagnosis for treatment of all clients. As a result, the centers were not serving some children who qualified for Medicaid services. Once this inconsistency was identified, Utah’s mental health agency clarified its audit policies to conform to Medicaid billing policies.
- All five states adopted crosswalks that allow providers to diagnose young children using the DC: 0-3 and to then match these diagnoses to the DSM-IV codes required for claims payment.

## **State example**

### *Iowa’s process for identifying needed Medicaid policy changes*

Iowa established a Medicaid barriers workgroup, consisting mostly of Medicaid staff and clinicians who were involved in the ABCD II project’s development and pilot site planning. The workgroup developed a Medicaid barriers document that begins with a set of guiding principles for addressing any Medicaid barriers to implementing a statewide system for identifying and treating young children with or at risk for delay in social or emotional development. The document describes each barrier identified during ABCD II planning, as well as the Medicaid agency’s initial thoughts on how to respond to the barriers.

The workgroup identified three types of barriers:

1. *Those that require changes to current Medicaid policies.* For example, in Iowa, the Medicaid agency did not allow a clinician to submit a claim for a well-child visit conducted on the same day as a sick visit.
2. *Those that require clarification of existing policies.* For example, Iowa Medicaid changed its written billing policies to clearly specify that primary care providers should use procedure code 99420 (Administration and Interpretation of Health Risk Assessment Instrument) to bill for screens conducted using the Iowa Child Health and Development Record or other approved screening tool.
3. *Those that are a misperception of current Medicaid policy.* For example, many primary care providers were unaware that they could bill Medicaid for conducting a developmental screen.

Iowa used several different strategies to address these policy barriers.

- *Clarifications of existing policy:* Iowa Medicaid sent a letter to Medicaid providers (and the previously described EPSDT coordinators) clarifying existing policies. The state also offered providers training to improve their understanding of Medicaid policy. For example, Iowa clarified that Medicaid providers (including primary care providers) who use an objective developmental screening tool as part of well-child care can bill under CPT code 99420 and that follow-up services for diagnoses that are not specifically covered by Medicaid's contracted behavioral health organization (BHO) may be billed through the fee-for-service system. They also clarified that providers may use the DC: 0-3 diagnosis classification system to diagnose young children, crosswalk that diagnosis to a DSM diagnosis, and bill Medicaid for treatment services.
- *Changes to existing policy:* Project staff produced a report to their EPSDT Board (which the Medicaid Director co-chairs) detailing the evidence base for improving developmental services and the changes to existing policy needed to support improvement. The Iowa legislature approved all recommended changes and directed the Medicaid agency to implement the changes as part of the 2007 state budget process. In addition, the Iowa legislature approved funding for the MCH agency to expand the system developed under the ABCD II project of using EPSDT coordinators to facilitate access to follow-up services.

#### *Illinois: Improving identification of perinatal depression within existing authority*

Illinois's Medicaid agency made several important changes to its provider manuals to improve identification of perinatal depression. These changes were within the existing authority of the Medicaid agency; they did not require the approval of new funding or of an amendment to the state plan. The state issued a provider notice to inform primary care providers, including pediatricians, that they could be reimbursed for conducting risk assessments for perinatal depression with approved tools, including the Edinburgh Postnatal Depression Scale, the Beck Depression Inventory, and the Primary Care Evaluation of Mental Disorders Patient Health Questionnaire. Providers may use other tools if they receive pre-approval from the Medicaid agency. Additional provisions instituted by the state were:

- If a woman is pregnant or in a postpartum period up to a year after birth and is a Medicaid beneficiary, the provider is instructed to bill Medicaid under the mother's ID number.
- If a woman is not herself a Medicaid beneficiary but her child is a beneficiary who is less than one year old, the provider is instructed to bill Medicaid for a risk assessment under the child's number. The state has adopted this policy because research has shown that perinatal depression often results in poor health or developmental outcomes for the child.

The Illinois Chapter of the American Academy of Pediatrics and the Illinois Association of Family Practitioners played an important role in implementing and publicizing this policy clarification – at little or no cost to the state. The organizations (and the Illinois chapter of the American College of Obstetricians and Gynecologists, or ACOG) sent a joint letter to their members explaining the policies and expressing their support for maternal depression screening by primary care providers. They also gave technical assistance to providers about why to use a

standardized screening tool, how to document its use, resources for treatment, and other billing issues.

## **Lessons learned about identifying and resolving policy barriers**

The ABCD II states identified a number of factors that improve efforts to identify and resolve policy barriers:

- A focus on solving problems.
- An effort to solicit input on barriers from clinicians and others who interact with the system.
- A recognition that processes designed to identify and resolve Medicaid policy barriers are more likely to result in policy change when led by the Medicaid agency – and when there is a clear process (and time) for involving the Medicaid director in the decision-making. The director does not necessarily need to lead the process, but the process should lead to the director.
- A willingness to give clinicians a specific response to each identified barrier. This helps to create a process that is focused on solving problems, even with a negative response, as long as there is an explanation.
- The establishment of guiding principles (informed by stakeholders) for deciding how to respond to each barrier.
- A willingness to describe each barrier’s impact on the delivery of care, and the benefits to both clinicians and payors to address the barrier.

## **Partnering to Achieve Goals**

One of the keys to success was that each ABCD II project was a partnership of multiple state agencies and others interested in ensuring young children’s healthy mental development. Project staff recognized that they were most effective in achieving project goals by building partnerships with clinicians and private organizations. Many of these public and private partnerships have already been discussed. In addition:

- California partnered with the First Five agencies<sup>45</sup> in the pilot counties.
  - In Alameda County, the First Five agency identified referral resources and assisted children who screened positive for social or emotional developmental problems.
  - In Riverside County, the Inland Empire Health Plan had an agreement with an agency partially funded through the local First Five agency to receive referrals for children with positive screens.
- Illinois chapters of the American Academy of Pediatrics and the Academy of Family Physicians, in conjunction with the Enhancing Developmentally Oriented Primary Care (EDOPC) project, developed and piloted a peer training curriculum and toolkit on

screening and referrals for early childhood mental health and perinatal depression to complement the state’s training. The state’s early intervention program also assisted with assessment and referral in the pilot communities.

- Minnesota project staff, the state’s AAP chapter, and the Minnesota Department of Health agreed on a strategy and preliminary steps for improving the quality of well-child visits in Minnesota, focusing particularly on improving developmental and mental health assessment and anticipatory guidance.
- Utah partnered with its medical home project to develop information on social-emotional development for the medical home project Web site (<http://medhome.med.utah.edu/>) to disseminate lessons learned and tools developed by the pediatric practices participating in the ABCD learning collaboratives. Utah’s Medicaid agency posted the same information, or links to the medical home project Web site, on its Web pages.

## State examples

### *Utah: Broad partnership to improve care*

Utah conducted learning collaboratives to foster pediatric practice improvement in the identification and treatment of young children. The Utah Pediatric Partnership to Improve Healthcare Quality (UPIQ) convened the collaboratives. The UPIQ is a partnership of state agencies, provider professional organizations, a large multi-specialty group, and a state university – the Intermountain Pediatric Society; University of Utah School of Medicine, Division of General Pediatrics; Utah Department of Health’s Division of Health Care Financing and Division of Community and Family Health Services; HealthInsight; and Intermountain Health Care, Physician’s Division. Utah Medicaid staff describe UPIQ as “a collaborative effort to promote evidence-based best practices and assist providers to institute quality improvement at the practice level.” Or, as one of the physicians on the steering committee noted: “It helps bridge the gap from what doctors know are the best practices to implementing those best practices.”

UPIQ has one dedicated part-time staff person who is employed by the University of Utah. Most of the work of organizing and operating the collaboratives is donated by staff from the partner agencies. The cost of a collaborative has ranged from about \$15,000 to \$23,000. Each collaborative consists of a:

- Pre-assessment and/or other data collection within the practice;
- One-day learning session;
- Chart audits;
- Ongoing technical assistance including,
  - Conference calls, and
  - At least two site visits by the UPIQ coordinator during the six to twelve months following the learning session; and
- Closing session to recognize success and steps to continue and spread the changes.

After participation in the two learning collaboratives on social emotional development, the use of a standardized screening tool increased to 76 and 84 percent in the participating practices,

respectively. The learning collaborative sites demonstrated rates of referrals based on social-emotional screening of 62 and 77 percent for those children in need of referrals. In the pilot sites that focused on toddlers, 63 percent of children identified at risk who needed services from their primary care provider had documentation of care provided by their primary care provider in the medical chart. Screening has already spread to a total of 18 additional learning collaborative practice partners.

According to Utah Medicaid staff members, the agency pursued this partnership because it offers them the opportunity to develop relationships with providers and advocates. This advances program goals and access to expertise which they do not have within their staff or among contractors. They acknowledge encountering a number of challenges in establishing this partnership. Among them: some potential provider partners view Medicaid not as a partner but as a source of payment, which can complicate efforts designed to be collaborative. In addition, a Medicaid agency's responsibility to wisely spend the public's money and adhere to federal regulations can sometimes make it difficult to find ways to reach common goals.<sup>46</sup>

*California: Clarifying privacy laws to promote partnering between primary care providers and treating providers*

One of the barriers to primary care providers, local agencies that offer treatment, and state staff working together is concern that they may violate privacy laws by sharing information, albeit information that can be critical to coordinating care. Sharing information among agencies presents special challenges because each agency must not only follow its own policies and rules but must also respect those of their partnering agencies.

To address this barrier, California's ABCD II project collaborated with the National Center for Youth Law (NCYL) to develop confidentiality guidelines. The NCYL reviewed agency confidentiality policies and state/federal requirements and regulations, and prepared a report that identified:

1. The information that managed care plans, the Medicaid agency, providers, and other agencies that provide services to children with special health care needs can share with each other in order to accomplish four specific tasks:
  - monitoring and improving quality of care,
  - enhancing care coordination,
  - preventing duplication of services, and
  - improving administration of Medicaid benefits.
2. The information that cannot be shared, even when needed to accomplish the four identified tasks, and what laws and procedures prevent that sharing.
3. Suggested changes in procedures or state laws that could facilitate information sharing.

The NCYL also developed a privacy agreement that facilitates partnerships and collaboration by showing legal guidelines for information sharing.

## Lessons learned about building successful partnerships to achieve project goals

The experiences of the ABCD II states demonstrate that both state- and physician-led partnerships can produce improvements in care, especially when:

- The purpose of the partnership and benefits and contributions of all involved is clear.
- Partners recognize that developing a partnership takes time and effort. Partnerships between providers and state agencies with a history of antagonism are particularly difficult.

A final important lesson from these states' experience is that a state agency does not have to lead a partnership to benefit from it. Utah Medicaid benefits greatly from UPIQ, which the Intermountain Pediatric Society leads and University of Utah administers. In Iowa, the Healthy Mental Development Panel (which brings together a range of stakeholders in partnership to develop standards for identification and treatment that will ensure young children's healthy mental development) is chaired by Dr. Alfred Healy, who is a widely respected pediatrician.

## Financing Improvements in Care During Difficult Times

In 2004, each of the ABCD II states faced the same funding constraints as other states, among them growing Medicaid costs and recovery from several years of declining or stagnating revenue. As a result, most of the efforts of the ABCD II states were designed to produce and sustain improvement without requiring new appropriations or even, in most cases, any changes to their Medicaid State Plan.<sup>47</sup> Projects focused on improving the quality of the care delivered within existing federal guidelines, funding through such mechanisms as better defining Medicaid expectations of clinicians, and supporting clinicians in their efforts to improve the quality of care they provide.

In addition, California, Illinois, and Utah all worked through their Medicaid-contracted managed care organizations (MCOs) to improve the identification and treatment of young children with or at risk for delays in social, emotional, or mental development.

### State example

#### *Utah: Improving quality through managed care*

The Utah Medicaid agency contracts with managed care organizations (MCOs) to deliver physical health services and has separate managed care contracts to deliver mental health services. Utah used these contracts to support its ABCD II project goals.

In the first year of the ABCD II project, the state Medicaid agency's peer review organization (HealthInsight) reviewed the charts of adults and children likely to be served in both the medical system and the community mental health system. Less than 15 percent of the charts reviewed showed any coordination between mental health and medical providers. Medicaid staff presented these findings and models of care coordination to their contracted health plans and then gave all of the plans the same process improvement project (PIP) for the three-year period: improve the

coordination of care, both plan-to-plan and clinician-to-clinician. Utah did not dictate how the plans were to improve coordination, only that they do so. These PIPs are being validated by the External Quality Review Organization.

Because federal law classifies Utah’s largest “plan” (Intermountain Health Care or IHC) as a primary care case management<sup>48</sup> provider, IHC is not required to complete PIPs. Coincidentally, IHC is working on a project for its commercial line of business to place mental health professionals on site in some of its larger contracted clinics. ABCD II project staff in Utah worked with IHC to present this model to the Medicaid-contracted mental health plans, and two mental health plans are now working with these larger clinics to facilitate referrals for children enrolled in Medicaid. IHC continues to work on developing a relationship with community mental health centers.

### **Lessons learned about improving the quality of care**

The ABCD II states identified a number of strategies for improving the care delivered to young children, even in tough economic times:

- Medicaid agencies can improve the care delivered to young children and sustain that improvement without new funding, changes to state law, or changes to Medicaid policy that require federal approval. But doing so requires effort, creativity, and support at high levels within the Medicaid agency.
- Partnering with other agencies, advocates, and providers offers opportunity for improvement. These partners can bring both resources and support to the table.
- Medicaid agencies can leverage existing resources and requirements, such as the federal requirement to conduct quality improvement projects in managed care programs, to improve identification and treatment of young children with or at risk for delays in social and emotional development.
- Testing potential strategies in pilot sites can build a strong case for broader quality improvement.

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## **SUMMARY OF LESSONS LEARNED**

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The experiences of the ABCD II states in eight key areas offer important lessons for other states interested in improving the delivery of services to support young children’s healthy mental development.

### **Screening With a Standardized Tool for Potential Social and Emotional Development Delays is an Important Step in Ensuring Young Children’s Healthy Mental Development**

There is consensus in the field that pediatric clinicians have both the opportunity and expertise to identify children in need of care to support their mental development. The American Academy of Pediatrics notes that pediatric clinicians are the only clinicians who see most children under age five on a regular basis – thus making the primary pediatric clinician an ideal candidate for conducting the ongoing surveillance needed to identify developmental problems. In recognition of the critical role played by pediatric providers, all five state projects began with a focus on improving the identification of young children with social and emotional development by pediatric clinicians.

There are also clear indications that physicians often fail to diagnose children with a developmental problem, and that few use a standardized developmental screen.<sup>49</sup> According to the AAP: “the use of standardized developmental screening tools at periodic intervals will increase accuracy” and “pediatricians should consider using standardized developmental screening tools that are practical and easy to use in the office setting.”<sup>50</sup> Thus, the five projects focused their improvement efforts on encouraging and supporting primary pediatric practices to make periodic use of a validated, standardized screening tool a regular part of the way they deliver care to all children.

Project states found that the federal Early Periodic Screening, Diagnosis, and Treatment (EPSDT) requirements provide an important base for improving identification. Among other things, EPSDT requires periodic screening, a requirement that four of the five states have already used as a platform for recommending the use of standardized, validated screening tools to providers.

### **Screening Does Little Good without Access to Follow-up Services**

Early in the design of these projects it became clear that although improved screening of young children for potential social and emotional development problems was essential to ensuring young children’s healthy mental development, it was also insufficient. Project states all found that efforts to identify and help families and clinicians access resources for assessment and treatment were critical to project success. The ABCD II states found that pediatric clinicians were reluctant to adopt (or continue) using a screening tool unless they were confident that that the children they identified as potentially needing further care would receive appropriate care.

Accordingly, the five states also undertook efforts to identify existing assessment and treatment resources, remove policy barriers to accessing those services, and facilitate referrals to these resources. Minnesota also took steps to increase the resources available for assessment and treatment.

Federal EPSDT requirements also provide an important base for this aspect of the state projects. EPSDT requires states to provide eligible children with any service needed to “correct or ameliorate defects and physical and mental illnesses and conditions discovered by the [EPSDT] screening services” even if the state has chosen not to cover those services under other conditions.<sup>51</sup> Several ABCD II states used this requirement as a basis for covering innovative services, such as conducting a risk assessment for perinatal depression (Illinois) and specialized services targeted to treat children with less intense needs than normally covered (Minnesota).

## States Can Facilitate Access to Follow-up Services

States can facilitate access to follow-up care. States pay for assessment and treatment not only through their Medicaid programs but also through early intervention and children’s mental health programs. They can facilitate access to treatment by providing direct assistance, by improving coordination among programs, and by helping practitioners to develop links with local resources.

- *Direct assistance:* Iowa’s EPSDT coordinators (who work for local agencies contracted to the state public health agency) and Illinois’s Child and Family Connections (which contract with the state’s early intervention program) accepted referrals from practitioners in the pilot sites and committed to helping the families of children identified with potential delays obtain needed care.
- *Improved coordination among programs:* Illinois’ early intervention program changed its policies to clarify that children of mothers with maternal depression qualified for early intervention services, and Utah’s Medicaid agency and Division of Substance Abuse and Mental Health resolved inconsistencies between their billing and audit policies that were discouraging some local mental health agencies from treating some children with less intense needs.
- *Helping practitioners develop links with local resources:* Part of each learning collaborative session in Utah is devoted to helping practitioners develop relationships with and referral pathways to local resource agencies.

## Demonstrations Can Inspire and Test Policy Change

Each of the ABCD II states established pilot sites (demonstrations) to:

- test new ideas and delivery mechanisms,
- test new policies, and/or
- identify policy barriers.

The states found that the pilot sites were an effective method of testing new ideas and ensuring that policy changes were grounded in real-life experience.

## **Partnering With Pediatric Clinicians is Critical to Improving the Care Delivered to Children**

Active partnerships with clinicians were critical for obtaining provider acceptance and support for the ABCD II projects. In all five states clinicians played key roles in:

- Developing state recommendations for screening tools and effectively communicating those recommendations to clinicians.
- Identifying policy changes needed to promote improvement.
- Providing training and assistance to the pilot practices and spreading improvements in practice throughout the state.

## **Developing Successful Partnerships with Providers Takes Effort and a Willingness to Follow as well as Lead**

Each of the ABCD II states developed successful partnerships with medical providers; these partnerships were forged even in states where the Medicaid agency and clinicians have not always worked well together. These partnerships were built over time as partners recognized what each had to contribute to improving care. The ABCD II states also found that joining partnerships that they do not lead can be very beneficial. Utah's learning collaboratives, for example, are led by providers and have opened up important new avenues for state efforts to improve the care delivered to children.

## **Measuring Screening, Referral, and Treatment Rates for Young Children at risk for Developmental Delays is Challenging, Must be Planned Carefully, and, Ideally, Piloted**

ABCD II states faced challenges in measuring the rates of screening, referral, and treatment, with measuring referrals and treatment presenting the most difficulty. Challenges included difficulty in defining measures (numerators and denominators), data collection strategies that proved more difficult and resource-intensive than anticipated, and lack of available information. States struggled with questions such as who should be screened, when screening should occur, and sampling strategies. States also experienced significant difficulties in determining whether individual children referred for follow-up services received those services.

The challenges that states encountered point to the need to develop detailed measurement strategies in the early planning phases of the project and to pilot the data collection strategy to ensure it is feasible. Voluminous data are not necessary, but the data must be valid, reliable, and sensitive to the intervention in order to make the case for policy change.

## States Can Improve Care without New Funding or Legislation

ABCD II project states improved the delivery of care to young children. For the most part, they did so without seeking new appropriations, changing state law, or asking for federal approval for changes to Medicaid. They leveraged existing resources and partnered with other stakeholders including their sister agencies, private organizations, and providers.

The ABCD II states found federal EPSDT provisions to be particularly important to their efforts to leverage existing resources and partner with other stakeholders. The flexibility provided by EPSDT enabled states to complete, without a waiver or changes to their Medicaid state plans, tasks such as:

- promoting providers' use of standardized screening tools (all five states),
- establishing a system for supporting treatment referrals that relies on local EPSDT care coordinators (Iowa), and
- using primary pediatric providers to conduct risk assessments for perinatal depression (Illinois).

In addition, EPSDT flexibility enabled Minnesota to create a Medicaid benefit designed for all children diagnosed with an emotional disturbance and to expand the types of providers that can deliver parts of that benefit.

Consortium states found that two other provisions of federal Medicaid law were also important factors in enabling them to improve care, especially in difficult financial times.

- Illinois and Utah both made use of federally required external quality reviews to work with MCOs on efforts that would, among other things, support young children's healthy mental development. Efforts in Illinois were focused on child development services and in Utah on improving coordination between the mental health and physical health systems (plan-to-plan and clinician-to-clinician).
- Illinois reported that its ability to use local funding to claim federal matching funds for Medicaid administrative costs was an important factor in garnering the support of other stakeholders.

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## CONCLUSION

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The ABCD II states were successful in their efforts to develop and test strategies for improving the care of children ages birth to three who have, or are at risk for, social or emotional development delays, especially those in need of preventive or early intervention services.

The states improved the screening and follow-up services for young children through policy changes that improved program coverage, reimbursement, and system performance. They developed or built on public/private partnerships that assisted health plans, pediatric providers, and parents to gain knowledge and skills needed to furnish health care in a manner that supports a young child's healthy mental development. Providers and parents found that the screening itself improved the well-child visit experience. Screening not only identified social and emotional delays or risk of delay, but also improved the overall well-child visit.

The projects were not without their challenges, some of which remain, including the need to improve referral systems between medical and community providers; establishing and maintaining effective measurement and evaluation processes for continued improvements; continuing to focus on, and identify interventions for, children at risk for delays as opposed to those with more apparent delay; and addressing family risk factors, such as perinatal depression, that impact young children's healthy mental development.

During the course of the ABCD II collaborative, states shared their successes and challenges through technical assistance conference calls, meetings, and listserv communication. They also benefited from tools created through the ABCD I collaborative and other initiatives with similar goals.

Other states are now building on the work of the ABCD I and II project states as well as other initiatives and advances in the field to advance their own efforts to improve child development services. In March 2007, NASHP and The Commonwealth Fund launched the ABCD Screening Academy, a 15-month initiative aimed at moving the use of standardized screening tools as part of well-child care from a 'best practice' to a 'standard of practice.'<sup>52</sup> The ABCD Screening Academy will provide more than 20 states and territories with technical assistance to advance effective developmental screening models and policies that work within their individual circumstances.

The ABCD Screening Academy builds on the experience and expertise of the eight states that have participated in ABCD I and ABCD II as well as the efforts of researchers and other experts. The tools, resources, and accomplishments of these states will also be shared.

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## APPENDIX A: PROFILES OF STATE PROJECTS

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### State Profile: California

#### The Challenge

According to project leaders, California's decentralized service delivery system is ill-designed to meet the needs of children at risk for mental, emotional, and developmental problems. They cite a dearth of screening tools, a lack of culturally sensitive materials, and a shortage of children's mental health providers as particular challenges.

#### The Goals and Approach

1. To develop a matrix of agency responsibilities for mental health and developmental services delivery for children enrolled in Medi-Cal managed care.
2. To identify policy and process changes to improve access to and enhance funding of mental and developmental health services.
3. To implement a model quality improvement project (including training and toolkit) in two counties to help providers improve identification of children ages 0-3 in need of prevention or early intervention services for mental health or developmental disorders using a standardized screening tool, and to improve utilization of existing agency and community resources, incorporating the matrix and proposed policy and process changes.

#### Summary of Key Accomplishments

California's project examined the problem of appropriate mental health and developmental screening and treatment from state and local perspectives. The project uncovered numerous barriers to the accomplishment of such screening and treatment; project participants developed methods to overcome some of them.

Among its key accomplishments, the state:

- Implemented two pilot projects to demonstrate standardized screening and referral protocols using the ASQ-SE and two depression screening questions (to test for maternal depression) in six practices.
- Developed a modularized training curriculum that can be individualized to facilitate provider/practice trainings.
- Developed a matrix to identify roles and responsibilities, gaps and overlaps of local agencies in the pilot site regions regarding the healthy mental development of children under age 4. A matrix for the state is under development
- Worked with an outside organization to analyze federal and state privacy laws that may inhibit or facilitate collaboration among agencies and stakeholders. The organization produced a document on confidentiality constraints and, based upon its findings, trained professionals on confidentiality issues.
- Saw pilot sites achieve screening rates of 95 percent and 92 percent. These sites implemented the ASQ and ASQ-SE screening instruments at specific well-child visits. California also documented that 53 percent and 38 percent of children in their two pilot sites who were referred for treatment services received them.

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## State Profile: Illinois

### The Challenge

Significant collaborative efforts to promote children's healthy physical, social, and emotional development in Illinois raised public awareness of the issue of early childhood mental health across government agencies and disciplines, but the efforts also identified ongoing challenges in the area of preventive mental health services for young children and highlighted the need for provider education in assessing children's social emotional and healthy mental health development.

### The Goals and Approach

1. Increase social-emotional and perinatal depression screening and referral by primary care providers;
2. Improve the provision of mental health-related services to Medicaid eligible women and their children under age three; and
3. Provide lessons learned that will lead to changes in statewide policy and practice in Illinois.

### Summary of Key Accomplishments

An increase in provider training in Illinois, changes and clarifications in Department of Healthcare and Family Services payment policy, and increased attention to developmental, social-emotional and perinatal depression screening over the past three years, has led to measurable improvements in the number of screenings performed statewide. The Illinois' ABCD II Project has improved the delivery of developmental services for young children and their families through infrastructure development that largely resulted from policy clarification and changes, provider training, and the implementation of a sustainability strategy.

Among the state's key accomplishments:

- Significant collaborative efforts have emerged to promote children's healthy physical, cognitive, social, and emotional development; these efforts were closely coordinated with Illinois' ABCD II Project. Several ABCD partners in Illinois developed resources to help make the case to focus on healthy mental development of young children and perinatal depression. These included the University of Illinois at Chicago (UIC)'s Perinatal Depression Project and the Illinois Children's Mental Health Partnership (ICMHP).
- Illinois implemented two pilot projects using a coordinated community model and a third pilot that integrated screening and referral into its outreach program. As part of this implementation, staff identified referral resources for primary care providers by conducting statewide and community prevention assessments and early intervention and treatment resources. Staff trained eight primary care practices on social-emotional developmental screening, including screening for perinatal depression. (This same training was provided to all local health departments.)
- Through coordination with the Illinois Chapter of American Academy of Pediatrics (ICAAP) and the Enhancing Developmentally Oriented Primary Care (EDOPC) project, training curricula were developed on social-emotional development and perinatal depression and were provided for Medicaid Managed Care Organizations' network providers and pediatric/family physician sites. The Illinois Academy of Family Physicians also conducted teleconferences, presented at grand rounds, and is developing an electronic monograph offering CME credits on social-emotional development and perinatal depression. Illinois used private foundation dollars to secure federal match under an administrative claim in order to offer provider training on EPSDT requirements.

- Illinois made numerous policy changes during the ABCD project, including:
  - clarifying and encouraging the use of unbundled services for Medicaid reimbursement for developmental screenings,
  - clarifying Medicaid policy to allow for two developmental screenings and one risk assessment on the same day,
  - paying primary care clinicians through Medicaid for using a validated screening tool to screen the mothers of all infants covered by Medicaid for perinatal depression,
  - increasing reimbursement to providers for preventive EPSDT well child screening services,
  - initiating collaborative MCO Performance Improvement Projects (PIPs) focused on the healthy social-emotional development of young children and perinatal depression, and
  - MCO contract requirements to focus on health outcomes, including promoting the healthy mental development of young children.
- Illinois changed policy to require family case management agencies that are enrolled as medical providers to conduct objective developmental screenings for all infants and pregnant women who are beneficiaries of Department of Healthcare and Family Services medical programs. Between the period of April 2005 and August 2006, nurses and public health aids conducted screenings for social-emotional delays and maternal depression with a validated tool during home visits.
- Illinois worked closely with the Bureau of Early Intervention to strengthen referrals. Illinois clarified that an infant whose mother has been diagnosed with postpartum depression is eligible for Part C services.
- Part of Illinois' effort to measure improvements in developmental screening focused on increasing the number of paid claims for standardized screening. The Medicaid program found a 27 percent increase in these claims during the project. Paid claims for perinatal depression screening increased by 96 percent. In one pilot site, mothers of 50 percent of the children screened with the ASQ-SE were screened; 2 percent were identified at risk. Illinois used claims data to provide feedback to providers about their screening and billing practices, and to monitor changes in their screening practices. Illinois also reported that 39 percent of children in one pilot who were identified as needing follow up by the primary care provider received it.
- As part of All Kids, a program that assures affordable health coverage for all children in Illinois, the Department of Healthcare and Family Services is implementing a Primary Care Case Management (PCCM) model that will provide children with a "medical home." The PCCM program is being phased in statewide. One of the quality indicators for this initiative will be objective developmental screening of young children. Primary Care Providers (PCPs) will be monitored for periodic objective developmental screenings, including objective screening for social-emotional development. PCPs will be provided with ongoing feedback using administrative (claims) data identifying those children in need of screening. In addition to this new policy, the pilot projects and state collaboration on provider training and support will continue.

*The Illinois project was supported by grants from the Michael Reese Health Trust, with support also from the Chicago Community Trust during the first year of the three-year initiative.*

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## **State Profile: Iowa**

### **The Challenge**

Data from a 2000 Iowa Child and Family Household Health Survey showed that a number of children were at risk for social-emotional developmental delay due to environmental factors. Significant deficits in EPSDT well-child screenings, particularly with regard to conducting developmental/mental health screenings and providing anticipatory guidance, were attributed to time constraints and training for family physicians practicing in rural Iowa as well as difficulty finding appropriate services, particularly for children and families with less intensive needs.

### **The Goals and Approach**

The state's ABCD II project was intended to:

- Build the capacity of Iowa primary health care providers to provide developmental surveillance and assessment, family risk assessment, and anticipatory guidance for the healthy mental development of all Medicaid eligible children birth to age three.
- Build the capacity of Iowa's public and private health systems to promote healthy mental development through the enhancement of the delivery of developmental services and improved linkages with Iowa hospitals and other service providers.
- Define clinical care standards for preventive and developmental services, including surveillance, family risk assessment and care coordination
- Conduct two pilot projects – one urban and one rural – to test the application of preventive system standards and linkages to developmental services.

### **Summary of Key Accomplishments**

Prior to ABCD II, Iowa's early childhood efforts focused on day care, early education, and public health services. Since ABCD II, there has been a growing appreciation of the role the private primary health care provider plays in the system. Private health care providers are now invited and becoming more engaged in planning and policy efforts at both the state and community levels.

Among its key accomplishments, the state:

- Established three levels of services, focusing on preventive services, including screening, assessment, family risk factors, counseling, and care coordination for all Medicaid eligible children; developmental services, such as problem-based counseling and coordination of care for all Medicaid eligible children identified at risk for developmental or emotional problems; and intensive developmental or mental health services for those children identified in need of therapy.
- Implemented two pilot projects to test and refine minimum standards for preventive services and linkages to existing developmental services. Pilot implementation included initial training and ongoing support by a team that included physicians and state staff. These pilots also tested the use of screening tools and other materials developed to support the practices' efforts to identify and refer young children with mental developmental needs.
- Developed provider training on proposed identification standards, best practices in developmental screening, autism screening, family risk assessment, and healthy mental development. At the direction of the ABCD II Board, \$75,000 in state dollars was secured to support statewide training of health care providers in the finalized standards, protocols, and tools. Iowa Medicaid matched these funds with \$75,000 in federal Medicaid match.

- Developed an Iowa EPSDT health provider Web site reflecting the standards and definitions of the three levels of services and other information about using a standardized screening tool. The Medicaid director sent a letter introducing the Web site to all Medicaid providers.
- Defined a referral process, using local EPSDT coordinators, that assures all children are referred to and connected with appropriate services. Iowa tested this approach in pilot sites and used feedback to identify gaps in the system.
- Identified and analyzed Medicaid barriers related to screening, identification, and intervention services as a step toward policy improvement. Many of the perceived barriers were not actual policy barriers but rather misunderstandings and misperceptions on the part of Iowa's health care providers. Because of this, there were a limited number of policy issues to address.
- Clarified that providers may use the DC: 0-3 diagnosis classification system to diagnose young children, crosswalk that diagnosis to a DSM diagnosis, and bill Medicaid for treatment services. The Medicaid program clarified that providers (including primary care providers) who use an objective developmental screening tool as part of well child care can bill under CPT code 99420 and that follow-up services for diagnosis that are not specifically covered by their contracted behavioral health organization (BHO) may be billed to Medicaid through the fee-for-service system.
- Featured ABCD at a conference for Iowa's leading health programs and state legislators to begin developing a children's health agenda in Iowa. Iowa Medicaid and the Prevention of Disabilities Policy Council have signed an agreement to continue the EPSDT Collaborative Board and the ABCD II Healthy Mental Development Panel to provide oversight of health provider training activities and to advise Iowa Medicaid about implementation of key components of a healthy mental development system of care as a part of EPSDT.
- Increased the percentage of children screened for social-emotional problems from 65 percent and 36 percent prior to the project to 93 percent and 89 percent, respectively, in the two pilots after the intervention. Iowa demonstrated referral rates of 30 percent and 35 percent in its two pilot sites and achieved a maternal depression screening increase from 0 percent to 65 percent. Iowa also conducted focus groups and interviews to gather information on provider and office staff experiences.
- Both of Iowa's ABCD II demonstration projects plan to continue screening for social emotional development and identified expansion or further spread to additional sites within their organization. The Governor's FY2007 budget appropriated \$325,000 to the public health agency to spread the ABCD II model. Three sites were selected for expansion using a public-private collaboration and care coordination services model. Dissemination is planned through interfacing and integrating with other state initiatives: Iowa Medical Home Initiative, the IDPH Healthy Mental Development Program, Early Childhood Iowa (Empowerment), Maternal Depression Screening Project, and professional development activities including the Iowa AAP and Family Practice chapters.

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## State Profile: Minnesota

### The Challenge

Minnesota's system of care for the mental health development of young children and their families was characterized as having numerous strengths to build from, but suffering from gaps, fragmentation, and insufficient clinical expertise.

### The Goals and Approach

Minnesota's ABCD II project set the following goals:

1. Introduce mental health screening of parents.
2. Expand early childhood mental health screenings in several venues and establish a separate billing mechanism.
3. Test and establish a new Medicaid benefit for at-risk children who do not meet current diagnostic criteria.
4. Test and adopt a new diagnostic framework (DC: 0-3) for use with young children.
5. Train primary pediatric practices to assist in infant mental health integration.

### Summary of Key Accomplishments

The ABCD II Project was a catalyst for activities around screening, diagnosis, and treatment of infants and toddlers experiencing mental health and developmental disorders; it generated long-term impact in the community. Activities included: training sessions, repeated requests for the list of professionals who are now trained to diagnose infants and toddlers, a growing interest in other agencies to give dedicated attention to children 0-3, Head Start and Early Head Start adoption of a common screening tool, and many professionals who come in contact with families and their young children who are now better informed about referral resources.

Among its key accomplishments, the state:

- Implemented two pilot projects to improve screening. These sites also tested the utility of a potential new Medicaid service specifically tailored for children whose mental health development is at risk but who do not have diagnosable disorders.
- Clarified that providers (including primary care providers) who use a standardized developmental screening tool may bill for that service under CPT code 96110. Medicaid now instructs providers to attach a modifier (UC) to this code to indicate a mental health screen (distinct from a general developmental screen). Health plans are developing a common message on coverage and billing across payers; incentives are being offered for use of screening tool, and was included in contracts for 2007.
- Began significant collaborations with Head Start and Early Head Start, organizations that have identified improving early childhood mental development as a new strategic goal. Local Head Start agencies made progress in implementing screening tools in the target language of the families served. Instruments were translated and back-translated for accuracy in Hmong, Somali, and Spanish. The agencies also purchased handheld tablets with screening tools already installed for easy use and adaptation.
- Created the Children's Therapeutic Services and Supports (CTSS) benefit. CTSS is available to children who have been diagnosed with an emotional disturbance of any severity and includes a wide range of mental health services, including skill building services for the child and the child's family. CTSS services can be provided both by traditional mental health providers and a variety of approved social service agencies, including Head Start.

- Offered training, and continues to do so, for primary care providers, children's mental health professionals, early childhood family educators, early intervention specialists, early childhood special education providers, nurses, home visitors, and train-the-trainers. The project trained mental health providers and early childhood professionals on the DC: 0-3 system and the crosswalk and worked to increase the number of providers certified to provide the Children's Therapeutic Services and Supports (CTSS) benefit.
- Updated the state's EPSDT provider training manual to more directly address early childhood and children's mental health; completed review of developmental screening instruments and posted a new Web site presenting those instruments recommended by the Minnesota Department of Health, endorsed by the Minnesota Department of Human Services, and approved for use by the Minnesota Department of Education for the Early Childhood Screening Program; and saw the Minnesota legislature enact legislation to provide postpartum depression education and information to new mothers and fathers departing from hospitals and other health care facilities.
- The percent of children screened during well-child visits in the two pilot sites was 91% and 93%. Seventy-two percent of children who were referred for follow-up services received them. The follow-up services included psychological services and speech therapy. Minnesota conducted interviews with providers and office staff and administered a provider survey to pediatricians and nurse practitioners about their experience.
- Both of Minnesota's ABCD pilot sites are interested in incorporating their pilot experience into their general practice. Project staff is continually invited to participate on issues around early childhood mental health and to provide experience as best practice and a potential model for replication.

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## State Profile: Utah

### The Challenge

Primary care providers do not have all the tools, or resources, to meet very real needs identified in the literature: only about 50% of children with psychosocial morbidity are identified by their primary care physicians. Once identified, only a small fraction receive appropriate mental health treatment. Furthermore, according to the literature, pediatricians do not receive adequate training concerning psychosocial problems, may be hesitant to attach stigmatizing labels to children, do not have enough time during brief visits to address psychosocial needs, and may have limited access to mental health services.

### The Goals and Approach

1. Increase screening for infant mental health concerns as part of the EPSDT well-child visits.
2. Increase interactions between and among Medicaid providers to ensure that providers direct children and their families to appropriate services.
3. Increase screening for maternal depression within pediatric practices and as part of the postpartum follow-up visits.
4. Increase the capacity of the current mental health system to serve infants in a variety of appropriate settings.

### Summary of Key Accomplishments

As the result of the Utah ABCD II project, there has been an increase in screening for social-emotional delay and maternal depression, recognition of the need to improve relations between and among providers, an increase in new collaborative projects, and improved care coordination and communication. This success is a direct result of the goal to bring partners to the table and focus on existing projects rather than creating something new. Overall, the experience provided opportunities to learn how new partners can collaborate and how to consistently improve internal processes. Learning collaboratives offered the opportunity to not only teach quality improvement but engage in direct improvement from the administrative side.

Among the key accomplishments:

- The state collaborated closely with the Utah Pediatric Partnership to Improve Healthcare Quality (UPIQ) in order to conduct three learning collaboratives on social-emotional development of young children and perinatal depression. The third collaborative session was telecast to two rural areas of the state.
- Utah selected preferred developmental and social-emotional screening tools for infants and toddlers and for maternal depression and updated the Medicaid parent handbook and provider manual to recommend that clinicians use them. Utah also clarified inconsistencies between Medicaid EPSDT billing policies and the mental health agency's audit procedures that were discouraging community mental health centers from providing services needed to treat or ameliorate a condition identified in an EPSDT screen unless a DSM-IV diagnosis could be assigned.
- UT's public health agency worked with the University of Utah's Department of Pediatrics to modify its Medical Home Portal to provide clinicians and families with information about best practices in screening and treatment for developmental delays and maternal depression. This site features links to Medicaid manuals, supporting scientific evidence, and local resource agencies. The site provides access to forms designed to be completed by Medical Home sites and shared with community resources. Providers are encouraged to use the forms in an effort to coordinate care and communicate on shared cases.

- Utah conducted two systems capacity surveys and reports that indicated a sharp decline in the number of mental health providers employed and contracted by community mental health centers while the number of children served continues to rise. However, Utah also made changes to improve the capacity to address needs, namely clarifying that providers may use the DC: 0-3 diagnosis classification system to diagnose young children, crosswalk that diagnosis to a DSM diagnosis and bill Medicaid for treatment services, and modifying the public health agency's contract with Part C providers to require them to return a form completed by Medicaid providers who make a referral to the Part C provider. The form provides information about follow-up services provided. Part C providers are monitored to ensure use of the form.
- After participation in the two learning collaboratives on social-emotional development, the use of a standardized screening tool increased to 76 and 84 percent in the participating practices. The learning collaborative sites demonstrated rates of referrals based on social-emotional screening of 62 and 77 percent for those children in need of referrals. In the pilot sites that focused on toddlers, 63 percent of children identified at risk who needed services from their primary care provider had documentation of care provided by their primary care provider in the medical chart. Screening has already spread to a total of 18 additional learning collaborative practice partners.
- Based on the ABCD experience, Utah's Bureau of Maternal and Child Health created a new position, Children's Mental Health Promotion Specialist, focusing on children's mental health. This position offers the opportunity to sustain success by bringing public health and mental health together.

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## APPENDIX B: SUMMARY OF SELECTED EVALUATION RESULTS BY STATE

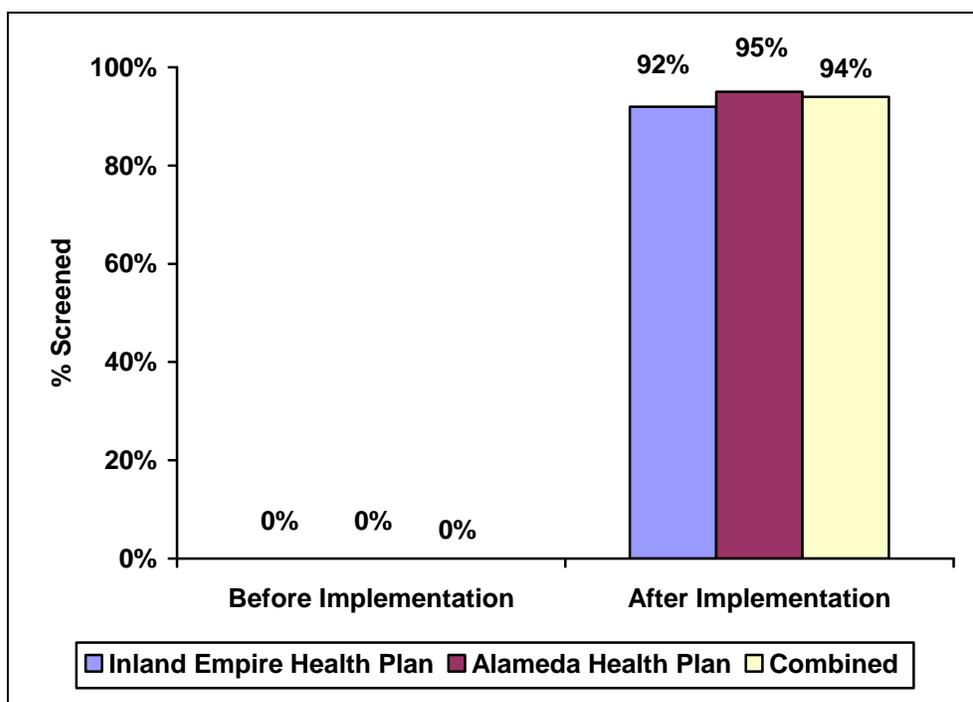
### California

California piloted a quality improvement project within two Medi-Cal Managed Care Plans (California's Medicaid program) in two regional pilot sites comprised of six participating practices. These sites implemented the ASQ and ASQ-SE screening instruments as part of specific well-child visits (12-, 18-, and 24-month visits).

Across the six practices, 260 of the 276 children (about 94 percent) who had one of the specified well-child visits were screened for social/emotional and/or general developmental concerns. Of the 260 children screened, 67 (26 percent of children screened) were identified as being potentially at risk for developmental delay. Among these 67 children:

- 27 children (10 percent of children screened) were referred outside the practice for follow-up services. Project staff documented that 13 of these children (or 5 percent of children screened) received follow-up services.
- 40 children (15 percent of children screened) were identified as needing follow-up services that could be provided within the practice. Project staff were able to document that 32 of these children (or 12 percent of children screened) received those in-practice follow-up services (such as re-screening or anticipatory guidance).

**Figure 2** In California, screening rates increased after implementation



In discussions with participating providers, project staff concluded that clinical judgment, including previous knowledge of the family, were important factors that the providers considered when making referral/treatment decisions for children identified by the ASQ or ASQ-SE as potentially at risk.

Finally, in structured interviews with participating providers in the pilot, the majority stated that the use of a standardized screening and referral protocol (1) increased the efficiency of the well-child visit, (2) provided structure to and enhanced the quality of conversations with parents around children's developmental issues, and (3) enabled them to identify potential delays or concerns they would not have been detected by their clinical judgment alone.

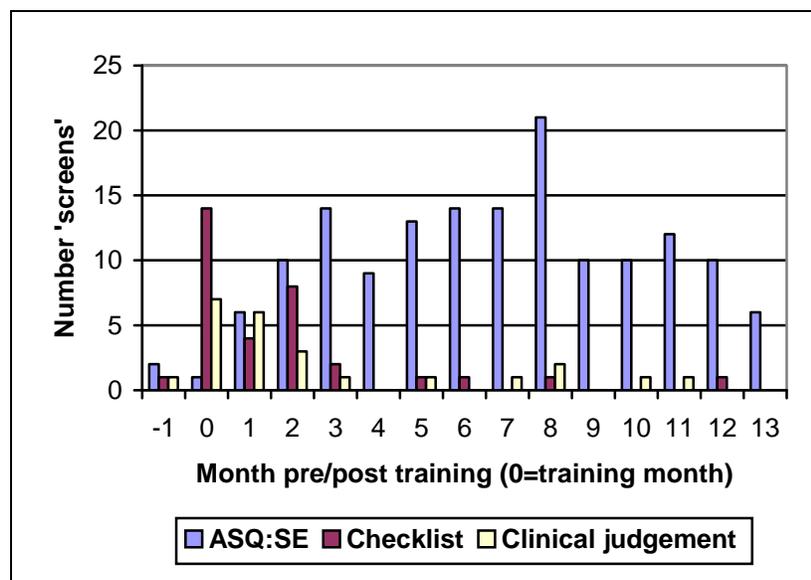
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## Illinois

Illinois sought to implement screening in pilot sites using a community-wide systems approach. Early intervention networks supported the efforts of the pediatric or family practice implementing the screening protocols. The network includes early intervention, local health departments including family case management and WIC, community mental health agencies, and local school districts. Among the pilots:

1. One implemented developmental screening for social and emotional issues as part of well child care in a family physician practice and residency training program.
2. One implemented developmental screening in a variety of county-administered health programs, including a health clinic.
3. One implemented developmental screening as part of home visits conducted by public health nurses and aides employed by the city of Chicago with the goal to reach the most vulnerable children who do not access preventive or primary care services.

**Figure 3 In Illinois, physicians in the practice-centered demonstration site shifted to greater use of validated screening tools as part of well-child care after training**



The practice pilot screened, over the course of a year, about 43 percent of the approximately 350 children who had a well-child visit at 6-, 9-, 18- or 24-months of age using a validated screening instrument. Figure 3 shows this practice's use of clinical judgment only, clinical judgment in conjunction with a non-validated checklist, and clinical judgment in conjunction with the ASQ-SE over this one-year time period. It indicates an increase in screening using any of the three methods tracked and a shift from using mostly clinical judgment only to using clinical judgment in conjunction with the ASQ-SE.

Among the 152 children screened:

- 12 (about 8 percent) had screening results indicating that they were at risk for developmental delay,
- 45 (about 30 percent) received anticipatory guidance,

- 9 (about 6 percent) were identified for developmental surveillance,
- 9 (about 6 percent) were referred to early intervention, and
- 5 (about 3 percent) were identified as needing to be re-screened.

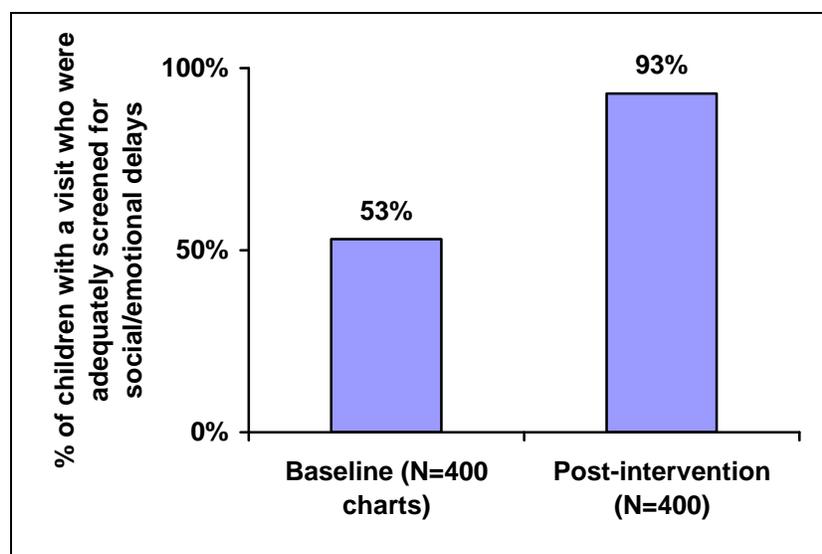
In addition, Illinois used claims data to track statewide increases in number of screens. The state found that between state fiscal year (SFY) 2004 and SFY 2006, the number of claims submitted for conducting developmental screening of children age 0-3 years increased from 75,456 to 89,725 (a 19 percent increase).

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## Iowa

Iowa sought to improve identification of children at risk for delays in social or emotional development during well-child visits in two practices – one urban and one rural. The state’s intervention differed from the other states in that it defined ‘adequate screening’ to include not only screening with a validated tool (e.g., the ASQ-SE) but also the use of the Iowa Child Health and Development Record (a form developed by the state for use during EPSDT visits that, among other items, incorporated questions on both general and social-emotional developmental screening). Iowa project staff examined a total of 800 charts documenting the care provided to children who had at least one office visit during the time period under examination – 400 before the intervention (232 in the urban pediatric practice and 168 in the rural family practice) and 400 after the intervention (249 urban and 151 rural). They found an increase in the number of charts with documentation of adequate screening for social and emotional delays after the intervention.

**Figure 4 In Iowa, a greater percentage of children were adequately screened as part of well child care after the intervention**



Further, Iowa measured both children with a positive screen and children referred. The state found that after the intervention the percent of children flagged as potentially at risk for social and emotional development concerns fell, but that the percent of children actually referred increased.

- Children flagged: About 6 percent (18 of 325) of the children in the baseline sample who were adequately screened for social and emotional development were flagged for referral; while about 5 percent (20 of 378) were flagged for referral in the post-intervention sample.
- Children referred: About 2 percent (7 of 325) of the children adequately screened in the baseline sample were referred as the result of a social-emotional screen; while about 3 percent (12 of 378) were referred in the post-intervention sample.

Iowa was not able to produce a measure of the percent of children who received follow-up care. The state did, however, collect information about the challenges to successful delivery of follow-up care. Iowa assigned a local EPSDT coordinator to follow-up on referrals and assist families in accessing assessment and treatment services. These staff collected data about the barriers faced when referring families and identified the major challenges as lack of child psychiatrists and transportation, as well as provider or family requests for programs that did not exist in their area. In addition the coordinators reported that they had difficulty in reaching some parents and that others refused the offered services.

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## Minnesota

Minnesota piloted its program at two general pediatrics clinic locations associated with children's hospitals. Both clinic systems are large and have psychiatrists on staff who were willing to serve as project coordinators. The two pilot sites served different populations in the state (urban and rural) and developed very different screening protocols. While both used the ASQ-SE for young children:

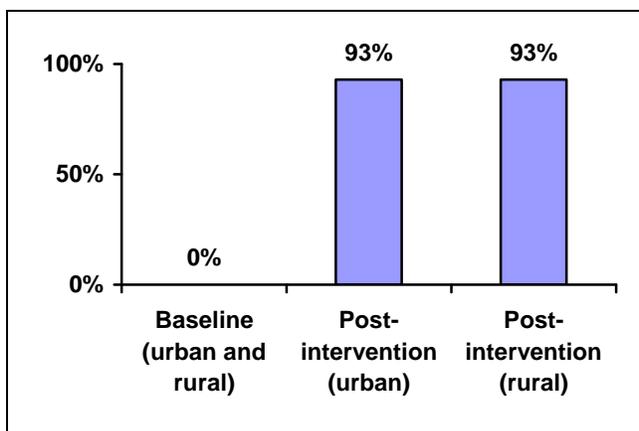
- The urban pilot used a paper version of the instrument and selected one day a week to test the intervention. All children age 0-5 who had a well-child visit on that date were targeted for screening. This pilot implemented screening in August 2005.
- The rural site developed a screening and referral protocol using an electronic palm tablet for screening. This pilot was phased in one physician at a time; all children who had well-child visits with specified providers were targeted for screening. This pilot implemented screening in late 2006.

In the urban pilot a total of 223 children age 0-5 had well-child visits on the specified date of the week during the intervention period (August 1, 2005-July 31, 2006). Evaluators found that the pilot site had a scored screening tool for 207 of these children or 93 percent of the children who should have been screened. Of the 207 children screened, 18 were identified as at significant risk (9 percent of children screened). Among these 18:

- The primary care physician decided that 4 (2 percent of the 207 children screened) were false positives due to language difficulties (2 children), the score reflected the parent's anxiety more than the child's needs (1 child), or the parent was young (1 child).
- 4 children (2 percent of those screened) were referred for follow-up to rehabilitative services (1 child) or to a project psychologist (3 children). Evaluators were able to document that the 3 referred to the project psychologist received follow-up, but were not able to document the result of the rehabilitative referral.
- Evaluators were not able to determine whether or not any follow-up services were provided to 10 children (5 percent of children screened).

The rural pilot used information from its electronic medical records, scheduling system, and the palm tablet to examine their screening and follow-up activity during the month of July 2007. This examination showed that the clinic provided well-child visits to a total of 285 children under age 3 during the month.

**Figure 5 Children in Minnesota's demonstrations site were more likely to be screened as part of well-child care after implementation**



The records documenting the care provided to 265 of these children showed evidence of screening (a 93 percent screening rate). Further:

- 32 children (12 percent of the children with well-child visits) had screening results that indicated they were potentially at risk for delays in social or emotional development.
- 41 children (14 percent of the children with well-child visits) were referred for follow-up services. All referrals were to a co-located mental health triage therapist. The therapist, as warranted, provided further screening, assessment, treatment, or referral.
- 27 of the 41 children referred (66 percent) received follow-up services. According to the mental health triage therapist, the difference between those referred and those who received service was due to no-shows, cancellations, or parents who had not called back to schedule an appointment.

ABCD II evaluators also used structured interviews and surveys to assess the experience of parents and providers in using the ASQ-SE. In general these efforts found that discussing the results of the ASQ-SE often enhanced the quality of the visit, that parents were willing to complete the form, and that both pediatric and mental health providers wanted more training on the ASQ-SE and referral process/resources.

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## Utah

Utah sought to increase screening for potential social-emotional development delays and maternal depression by partnering with UPIQ to conduct three learning collaboratives:

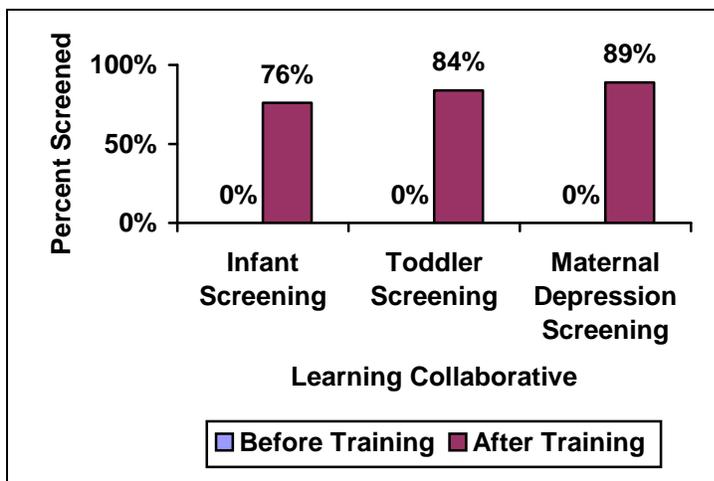
- Learning collaborative 1 focused on incorporating developmental screening of children age 0-12 months (infants) into well-child care.
- Learning collaborative 2 focused on incorporating developmental screening of children 12-36 months of age (toddlers) into well-child care.
- Learning collaborative 3 focused on delivering maternal depression screening as part of the well-child care provided to infants.

Each learning collaborative featured a 1-day training for practices followed by either 12 months (learning collaborative 1) or 6 months (learning collaboratives 2 and 3<sup>53</sup>) of technical assistance and chart audits at the practice level. Each participating practice was also asked to supply some information (including the extent to which they used a standardized screening tool) before the training session.

Practices reported almost no use of formal, validated screening tools before the training session – thus the reported baseline (pre-intervention) screening rate is 0 percent. The monthly audits were developed based on two samples of charts from each practice:

- A sample of charts documenting the care provided to infants (learning collaboratives 1 and 3) or toddlers (learning collaborative 2) who received a well-child visit in the previous month was used to produce the information reported here on screening, referral, and follow-up services provided by the primary care provider (PCP).
- A sample of charts documenting the care provided to children who received a well-child visit and a referral from their PCP in the past month was used to produce the information presented here on follow-up services provided by a resource agency.

**Figure 6 In Utah, practices were more likely to screen children for social and emotional development concerns after training**



These audits found an increase in screening rate after the training.

A total of 10 practices participated in learning collaborative 1 on screening of infants. These practices reviewed a sample of 526 charts in the 12 months following the training (an average of 43 charts per month). Among the 526 charts reviewed, 401 (76 percent) documented that the screening was conducted during a well-child visit. Among the 401 children in the sample who were screened the charts showed:

- 21 (5 percent of the 401 children screened) documented a need for referral for follow-up care outside the physician's offices;
- 13 (3 percent of children screened) documented that a referral was provided; and
- 9 of the 88 charts (10 percent) documenting a referral also documented a follow-up service from a resource agency.

A total of 10 practices participated in learning collaborative 2 (integrating screening for social and emotional delay into well-child care delivered to children age 12 to 36 months). These practices reviewed a sample of 251 charts in the 12 months following the training. Among the 251 charts reviewed, 210 (84 percent) documented that the screening was conducted during a well-child visit. Among the 210 children in the sample who were screened the charts showed:

- 22 (10 percent of children screened) documented a need for referral;
- 14 (7 percent of children screened) documented receipt of follow-up services (including flagging for re-screening) in the primary care provider's practice;
- 17 (8 percent of children screened) documented receipt of referral for a follow-up service outside the primary care provider's practice; and
- 46 of the 128 charts (36 percent) documenting a referral also documented a follow-up service from a resource agency.

A total of six practices participated in learning collaborative 3 (maternal depression screening). These practices reviewed a sample of 107 charts in the six months following the training. Among the 107 charts reviewed, 94 (88 percent) documented receipt of the maternal depression screen. Among the 94 mothers in the sample who were screened the charts showed:

- 9 (10 percent of those screened) documented both a need for a referral and the receipt of a referral; and
- 3 (33 percent of those identified as needing additional evaluation) were treated or counseled in the primary care provider's office. (Project staff did not collect information about documentation of receipt of follow-up services outside the office.)

Finally, examining the monthly data submitted by the practices that participated in learning collaboratives 1 and 2 shows both immediate and sustained increases in screening rates after the training. In the month immediately following the training, learning collaborative 1 documented a screening rate of 91 percent and learning collaborative 2 documented a screening rate of 37 percent. At the 12-month point learning collaborative 1 documented a screening rate of 100 percent and learning collaborative 2 documented a rate of 60 percent.

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## Notes

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<sup>1</sup> For a more complete discussion of the ABCD II state experience in producing all three measures please refer to: Colleen Peck Reuland and Christina Bethell, *Measuring and Evaluating Developmental Services: Strategies and Lessons from the ABCD Consortium States* (Portland, ME: National Academy for State Health Policy, December 2006).

<sup>2</sup> Neva Kaye, *Improving the Delivery of Health Care that Supports Young Children's Healthy Mental Development: Early Accomplishments and Lessons Learned from a Five-State Consortium* (Portland, ME: NASHP, April 2006).

<sup>3</sup> This final report is revised and updated from: Neva Kaye, *Improving the Delivery of Health Care that Supports Young Children's Healthy Mental Development: Early Accomplishments and Lessons Learned from a Five-State Consortium* (Portland, ME: NASHP, April 2006).

<sup>4</sup> Catherine Hess and Karen VanLandeghem, *Children's Mental Health: An Overview and Key Considerations for Health System Stakeholders, Issue Paper* (Washington, DC: National Institute for Health Care Management, February 2005) retrieved September 17, 2005; [www.nihcm.org/CMHReport-FINAL.pdf](http://www.nihcm.org/CMHReport-FINAL.pdf).

<sup>5</sup> C. Cybele Raver and Jane Knitzer, *Ready to Enter: What Research Tells Policymakers About Strategies to Promote Social and Emotional School Readiness Among Three- and Four-Year-old Children* (New York, NY: National Center for Children in Poverty, 2002) retrieved September 17, 2005; <http://www.nccp.org/media/pew02c-text.pdf>.

<sup>6</sup> Christina Bethell, et al, "Measuring the quality of preventive and developmental services for young children: National estimates and patterns of clinicians' performance," *Pediatrics* 113, no.6 Supplement (Jun. 2004):1973-83.

<sup>7</sup> U.S. Department of Health and Human Services, *Report of the Surgeon General's Conference on Children's Mental Health: A National Action Agenda* (Washington, DC: DHSS, 2000) retrieved September 17, 2005; <http://www.hhs.gov/surgeongeneral/topics/cmh/childreport.htm>.

<sup>8</sup> Kaiser Family Foundation, *Health Coverage for Low-Income Children, Fact Sheet*, September 2004. retrieved September 17, 2005; <http://www.kff.org/uninsured/upload/Health-Coverage-for-Low-Income-Children-September-2004-UPDATE.pdf>.

<sup>9</sup> Institute of Medicine, *From Neurons to Neighborhoods: The Science of Early Childhood Development*. Jack P. Shonkoff and Deborah A. Phillips (eds.) (Washington, DC: National Academy Press, 2000), 274. retrieved September 18, 2005; <http://books.nap.edu/books/0309069882/html/index.html>.

<sup>10</sup> *Ibid.*, 279.

<sup>11</sup> More information on what states can do to support young children's healthy mental development is available from: Kay Johnson and Neva Kaye, *Using Medicaid to Support Young Children's Healthy Mental Development* (Portland, ME: National Academy for State Health Policy, 2003). Available at: [http://www.nashp.org/Files/CW8\\_Health\\_Mental\\_development.pdf](http://www.nashp.org/Files/CW8_Health_Mental_development.pdf).

<sup>12</sup> The ABCD II Consortium was the second state consortium administered by NASHP and supported by The Commonwealth Fund. For more information on ABCD I, please go to NASHP's Web site at [www.nashp.org](http://www.nashp.org).

<sup>13</sup> Unlike the other four states in the collaborative, Illinois's individual project is not funded by the Commonwealth Fund but, rather, by a local funder, the Michael Reese Health Trust.

<sup>14</sup> Illinois reported the number of well-child visits for the period from April 2005 (one month prior to the training) to July 2006 (the 13<sup>th</sup> month following the training) as a single number. Therefore it is not possible to separately calculate a pre- and post-training screening rate. But, since only two ASQ:SEs were

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provided in the month before the screening the baseline is presented here as effectively 0 and the post-training rate as at least 43%.

<sup>15</sup> Please refer to appendix B for a summary of each state's results, by state.

<sup>16</sup> Colleen Peck Reuland and Christina Bethell, *Key Measurement Issues in Screening, Referral, and Follow-Up Care for Young Children's Social and Emotional Development* (Portland, ME: National Academy for State Health Policy, 2005) Available at: [http://www.nashp.org/Files/measurement\\_paper\\_for\\_web\\_final\\_4.7.05.pdf](http://www.nashp.org/Files/measurement_paper_for_web_final_4.7.05.pdf).

<sup>17</sup> For a more detailed discussion of these issues please refer to Colleen Peck Reuland and Christina Bethell, *Key Measurement Issues in Screening, Referral, and Follow-Up Care for Young Children's Social and Emotional Development*, (Portland, ME: National Academy for State Health Policy, 2005).

<sup>18</sup> David Bergman, *Screening for Behavioral Developmental Problems: Issues, Obstacles, and Opportunities for Change* (Portland, ME: National Academy for State Health Policy, August 2004).

<sup>19</sup> CA Boyle, P Decoufle, M Yeargin-Allsopp. "Prevalence and health impact of developmental disabilities in US children." *Pediatrics* 93 (Mar. 1994): 399 - 403.

<sup>20</sup> Office of Special Education Programs, Data Analysis System (DANS), OMB# 1820-0557: "Infants and Toddlers Receiving Early Intervention Services in Accordance with Part C," (Washington, DC: U.S. Department of Education, 2005) Data from Table 6-1. Infants and toddlers receiving early intervention services under IDEA, Part C, by age and state: Fall 2005. retrieved November 1, 2007; [https://www.ideadata.org/tables29th%5Car\\_6-1.htm](https://www.ideadata.org/tables29th%5Car_6-1.htm)

<sup>21</sup> This includes both services received from a resource agency or co-located staff in the primary care practice who are knowledgeable about mental development

<sup>22</sup> Illinois did not report the number of children who received one or more in-office follow-up services. Instead they reported that 45 received anticipatory guidance, 9 were identified for developmental surveillance, and 5 were identified to be rescreened. Because it is not known if any child received more than one of these follow-up services the resulting numbers are presented here as a range.

<sup>23</sup> Iowa reported separate results for four domains. It is not known how much overlap there is among the numbers reported for each domain so the data is reported here as a range—the low end represents highest number reported for any domain and the high end the total of all numbers reported in each domain.

<sup>24</sup> To address the issue of the small sample size, Utah instructed participating practices to generate the data on referral and follow-up services provided outside the primary care practice based not on the sample of all children who had a well-child visit in the previous month but rather on all children who had a well-child visit *and who received a referral*. The other numbers presented here are drawn from the sample of charts belonging to children who had a well child visit.

<sup>25</sup> Please bear in mind that these numbers are based on a sample of children screened—not all children screened.

<sup>26</sup> As used in this paper the term *pediatric clinician* means all physicians and nurses who treat young children, including pediatricians, family practitioners, child psychiatrists, pediatric nurses, and pediatric nurse practitioners.

<sup>27</sup> David Bergman, *Screening for Behavioral Developmental Problems: Issues, Obstacles, and Opportunities for Change* (Portland, ME: National Academy for State Health Policy, 2004). Two of the studies that support this statement are: (1) Laura Sices, MD, et al., "How do Primary Care Physicians Identify Young Children with Developmental Delays? A National Survey with an Experimental Design," *Pediatrics* 113, no.2 (Feb. 2004): 274-282 and (2) Kelly J. Kelleher MD, MPH, et al., "Increasing Identification of Psychosocial Problems: 1979-1996," *Pediatrics* 105(6):2000, 1313-1321.

<sup>28</sup> For example, D. Rydz, et al. "Developmental Screening," *J Child Neurol.* 2005; 20(1): 4-21.

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<sup>29</sup> U.S. Department of Health and Human Services, *Report of the Surgeon General's Conference on Children's Mental Health: A National Action Agenda* (Washington, DC: DHHS, 2000). retrieved September 17, 2005; <http://www.hhs.gov/surgeongeneral/topics/cmh/childreport.htm>.

<sup>30</sup> American Academy of Pediatrics, "Developmental Surveillance and Screening of Infants and Young Children." *Pediatrics* 108, no.1(2001):192-195. retrieved October 6, 2005. <http://aappolicy.aappublications.org/cgi/content/full/pediatrics;108/1/192>.

<sup>31</sup> California recommended that the pilot sites use these tools and has not yet considered statewide recommendations. The other four states recommended these tools to the pilot sites and other clinicians.

<sup>32</sup> The IHMCN is a state-developed tool that is designed to identify children who have developmental delays or are at risk for such delays. As part of its ABCD II project, Iowa revised the IHMCN to better address social and emotional development issues and tested these forms during the pilot to determine their effectiveness compared with other tools.

<sup>33</sup> For more information about selecting a screening tool, see David Bergman, *Screening Children for Developmental Disabilities and Behavioral Problems* (Portland, ME: National Academy for State Health Policy, 2004).

<sup>34</sup> Julie Olson. "The ABCD's of Promoting Children's Healthy Mental Development: Lessons and Accomplishments." Presentation at NASHP's annual State Health Policy Conference. August 8, 2005.

<sup>35</sup> For a more in-depth discussion on this topic, see Helen Pelletier, *How States Are Working With Physicians to Improve the Quality of Children's Health Care* (Portland, ME: National Academy for State Health Policy, April 2006.)

<sup>36</sup> States also report that some providers are reluctant to identify issues that they may not be able to address. This issue is addressed in the section starting on page 21.

<sup>37</sup> Several organizations (outside of ABCD II) are training and working with practices to modify processes of care. These include the National Initiative for Children's Health Care Quality (NICHQ) and the North Carolina Center for Children's Health Improvement. The results of these efforts should prove valuable to states seeking to improve the care delivered to children.

<sup>38</sup> For more information on the Illinois and Utah provider education efforts, see Helen Pelletier, *Working with Physicians to Improve the Quality of Children's Healthcare* (Portland, ME: National Academy for State Health Policy, April 2006.)

<sup>39</sup> In Iowa, the Medicaid agency also contracts with the public health agency to assure children have access to EPSDT services.

<sup>40</sup> The Utah Pediatric Partnership to Improve Healthcare Quality (UPIQ) is a broad partnership that, among other things, convenes learning collaboratives in Utah. (Please see page 28 for more information on UPIQ.)

<sup>41</sup> Illinois's pilots were defined as communities. Each site was composed of multiple practices and other local stakeholders.

<sup>42</sup> The *Diagnostic and Statistical Manual of Mental Disorders-IV* (DSM-IV) is produced by the American Psychiatric Association and the International Statistical Classification of Diseases and Related Health Problems (ICD) is produced by the World Health Association. They are the major diagnostic classification systems in use by health professionals.

<sup>43</sup> Nancy Seibel, "DC: 0-3, Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood," presentation to the ABCD II Collaborative via conference call, January 19, 2005.

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<sup>44</sup> For information about the work of the ABCD I initiative, see Helen Pelletier and Melinda Abrams, *ABCD: Lessons from a Four-State Consortium* (Portland, ME: National Academy for State Health Policy, December 2003).

<sup>45</sup> First Five agencies are county-based agencies created and funded through a tobacco tax to provide health-related services to children under five.

<sup>46</sup> See Helen Pelletier, *How States Are Working With Physicians to Improve the Quality of Children's Health Care* (Portland, ME: National Academy for State Health Policy, April 2006).

<sup>47</sup> The state Medicaid plan is the official document that defines how each state will operate its Medicaid program within federal guidelines. The state plan addresses the areas of state program administration, Medicaid eligibility criteria, service coverage, and provider reimbursement. (Source: CMS *State Medicaid Plans and Plan Amendment Web sites*. retrieved September 15, 2005; <http://www.cms.hhs.gov/medicaid/stateplans/default.asp>.)

<sup>48</sup> Primary care case management is a form of managed care used by Medicaid agencies in which (usually) a primary care provider or group of providers agrees to serve as the medical home and gatekeeper for Medicaid beneficiaries who are enrolled with the provider. In return, the provider receives fee-for-service payments for all services delivered to enrolled beneficiaries plus a small monthly case management fee for each beneficiary.

<sup>49</sup> David Bergman, *Screening for Behavioral Developmental Problems: Issues, Obstacles, and Opportunities for Change* (Portland, ME: National Academy for State Health Policy, 2004).

<sup>50</sup> American Academy of Pediatrics. "Developmental Surveillance and Screening of Infants and Young Children." *Pediatrics* 108, no.1(2001):192-195.

<sup>51</sup> §1905(r)(5) of the Social Security Act. retrieved September 27, 2005; [www.ssa.gov/OP\\_Home/ssact/title19/1905.htm](http://www.ssa.gov/OP_Home/ssact/title19/1905.htm)

<sup>52</sup> Information on the ABCD Screening Academy is available at [www.abcdresources.org](http://www.abcdresources.org).

<sup>53</sup> Post-training data collection was not completed for learning collaborative 3 before Utah submitted the final report for their ABCD II project.

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