

## **Patient Centered Quality Improvement of Well-Child Care**

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## I. Introduction

**A. Nature of the research problem:** Despite accumulating evidence regarding the importance of preventive and developmental services in preparing children for success in school and life<sup>1-4</sup>, substantial gaps exist between recommended provision of care and what is actually provided.<sup>5-6</sup> Previous national studies show that while up to two-thirds of young children meet criteria for receiving high quality care in some content area for well-child care, fewer than 10% meet criteria for receiving quality care across a minimal subset of services.<sup>7</sup> This leaves over nine in ten children, regardless of their health or socioeconomic circumstances, with one or more unmet needs for recommended anticipatory guidance and parental education, developmental surveillance or family assessment well-child care services. As such, recent efforts to rethink well-child care, including its content, delivery and infrastructure, have been especially focused on young children.<sup>8-10</sup>

Leaders in quality improvement consistently assert that the greatest untapped resource for sustained, meaningful improvement is the patient.<sup>11</sup> This is especially true in well-child care, where communication with the parent, including parental education and support, are the primary means through which services are provided. While partnership with parents during well-child visits is essential, few robust and feasible tools to enable this partnership have been developed. The revised MCHB sponsored national guidelines for well-child care services, The Bright Futures Guidelines,<sup>12</sup> provide a uniform set of recommendations for all pediatric clinicians and call for significant improvements in the delivery of well-child care. These recommendations are extensive and few tools exist that support pediatricians to implement them in a way that is feasible, thorough, tailored to each patient encounter and engages parents as partners. Through this study, we sought to develop and test the feasibility, acceptability and impact of tools to engage parents as partners in implementing Bright Futures guidelines for young children during well-child care visits.

**B. Purpose, scope, and methods of the investigation:** The specific goal of this study was to evaluate the feasibility, acceptability and impact of three different patient-centered strategies for improving the quality and equity of preventive and developmental services provided to young children in the context of discussions between pediatric clinicians and parents during well-child visits. The interventions, which were each implemented in three different practices were: (1) Global Feedback Report: A tailored report provided to clinicians using aggregate data collected from parents about the quality of the well-child care services these clinicians provide; (2) Shared Encounter Form (SEF): Use of an individualized, shared encounter form completed by the parent in the waiting room, and used to facilitate partnership between the parent and pediatric clinician during the well-child care visit; and (3) Enhanced Encounter – Plan My Child’s Well-Visit Tool (PCW): Use of an online assessment and education module completed by the parent, before the visit at home or in the waiting room, that yields a personalized guide (and education resources) for parents and pediatric clinicians to review before and during the well-child visit. For young children, the “patient” is the parent of the young child who brings him/her to the visit. Each study site served as its own control using pre- and post-data collection of evaluation measures. The evaluation measures use data from (1) clinician/office staff focus groups, (2) key informant interviews, (3) office site tracking system data, (4) pre and post clinician survey and (5) parent report about interventions using the validated Promoting Healthy Development Survey (PHDS).<sup>13-15</sup>

**C. Nature of the findings:** Each intervention showed a high level of participation during the study period. The Global Feedback site collected 517 PHDS surveys at baseline and 404 at follow-up, for 54% and 38% response rates respectively; the SEF site collected 2,188 SEF forms (June 2010 through July 2011) with staff reporting that refusals were “extremely rare;” and 2,075 parents at the PCW site completed the online tool. Key findings related to feasibility and acceptability to providers, staff and parents and impact on quality of care measures include:

**Feasibility & Acceptability to Providers & Staff.** Each intervention was feasible and acceptable to providers and staff. Implementation barriers for the Global Feedback site involved difficulty developing an improvement effort. Pediatricians at the SEF site noted that individual provider choices about implementation created variations that led to challenges in the office-wide workflow. The PCW site did not report specific barriers once the tool was implemented. They reported the tool helped improve workflow by allowing pediatricians to preview information before the visit, allowing nursing staff to prepare materials in advance, and freeing up the nurses’ time with parents for other topics.

**Feasibility & Acceptability to Parents.** Across all three interventions, parent responses suggest that the interventions are feasible and acceptable to parents. Highlights include:

- For the PHDS, Parents reported that the tool helped them to learn about what they can and should expect at a well child visit (Yes [59.6%], Somewhat [35.4%], No [5%]; N<sub>baseline</sub>=1253).
- For the SEF, 88.6% of parents reported that they were comfortable with the amount of time it took to complete the tool (N=210); and 87.6% reported that they would recommend it to other parents (N=210).
- For the PCW, 92.4% of parents reported that they were comfortable with the amount of time that it took to complete the tool (N=249); and 92.2% reported that they would recommend the tool to other parents (N=244).

**Impact on Quality of Care Measures.** Statistically significant and positive changes were found for the SEF and PCW interventions, based on the PHDS quality of care measures. Of particular interest were findings that parents were more likely to report their needs met for anticipatory guidance at the follow-up assessment than at the baseline assessment; and parents were more likely to be asked about one or more psychosocial (family assessment) topics at follow-up. Equally as important were provider focus group and survey reports in improvement in engagement, efficiency and team effectiveness in delivering well child care.

## II. Review of the Literature

Substantial evidence exists documenting the persistent and alarming gap between what is recommended and what is actually provided in the context of well-child care for young children<sup>5-7</sup>. In addition, there are significant variations in the quality of care across individual health care providers and office-settings and within the population of children an individual health care provider cares for, demonstrating disparities by child/family characteristics and a lack of standardization in the preventive services received by young children. Findings from national and regional studies indicate improvements are specifically needed on the clinical recommendations focused on anticipatory guidance and parental education (*1 out of 2 children have parents with unmet informational needs*),<sup>16-19</sup> surveillance of children's development (*2 out of 5 children have parents who were not asked about their concerns about their child's learning, development or behavior*),<sup>7,20</sup> and assessment of the family for risk factors (*1 out of 10 children's families are screened for risk factors*).<sup>21-22</sup> Most pediatric health care providers are aware of quality gaps, but lack system supports and easy-to-use methods or models for child and family needs assessment and the provision of personalized care.<sup>23-25</sup> To date, successful improvement efforts have focused on improving the standardization of office systems, implementation of screening tools focused on one aspect of the child or family health, development of general parent educational materials, and enhanced models for referring children/families with identified issues.<sup>26-28</sup>

A major gap in the studies to date is a lack of focus on or achievement of meaningful improvements in comprehensive anticipatory guidance and parental education that meets parents' needs.<sup>26</sup> While topic-specific anticipatory guidance may have been a focus, none achieved the broader goal of ensuring that parents' informational needs were met across the range of topics recommended anticipatory guidance and parental education topics. Given that this is a centerpiece of well-child care and identified by health care providers and parents as a top priority for well-child visits, it is an important area for model development and evaluation. Secondly, while pre-visit assessment and screening tools have been successful in improving care and feasible in practice-settings, these tools have focused on only one aspect of child/family health (*e.g. screening for developmental delays, screening for maternal depression*) and have not comprehensively assessed the child/family for the priority topics for the visit (*e.g. screening for developmental delays, screening for maternal depression*).<sup>20,22</sup> The few studies found that did engage parents as partners in care directly through, for example, the use of web-based tools, have observed some improvements and suggest the need for further studies in this area.<sup>29,30</sup>

Despite the lack of specific and tested strategies for facilitating parent-provider partnerships in well-child care, there is widespread consensus that ensuring good quality-care in this area is substantially related to whether parents are able to play a significant role in setting priorities for, actively partnering in and evaluating the care received.<sup>12, 8, 10, 31</sup>

## III. Study Design and Methods

**A. Study design.** We carried out a quasi-experimental study that engaged three pediatric offices (study sites) in the implementation and evaluation of three distinct patient-centered interventions designed to help translate in practice priority, nationally recommended well-child care services set forth in the recently revised and MCHB sponsored Bright Futures guidelines<sup>1</sup>. Each study site served as its own

control using pre- and post-data collection of evaluation measures. Each patient-centered intervention was evaluated using qualitative as well as quantitative methods. The feasibility and acceptability of the interventions to pediatric clinicians, office staff and parents was evaluated using data from (1) clinician/office staff focus groups, (2) key informant interviews, (3) office site tracking system data, (4) pre and post clinician survey and (5) parent report about interventions on the parent-completed Promoting Healthy Development Survey (PHDS). Briefly, the interventions are (1) **Global Feedback**: A tailored report provided to clinicians using aggregate data collected from parents about the quality of the well-child care services these clinicians provide; (2) **Shared Encounter Form (SEF)**: Use of an individualized, shared encounter form completed by the parent in the waiting room, and used to facilitate partnership between the parent and pediatric clinician during the well-child care visit; and (3) **Enhanced Encounter – Plan My Child’s Well-Visit Tool (PCW)**: Use of an online assessment and education module completed by the parent, before the visit at home or in the waiting room, that yields a personalized guide (and education resources) for parents and pediatric clinicians to review before and during the well-child visit. In addition to qualitative evaluations of the feasibility and acceptability of interventions to both pediatric clinicians, office staff and parents, the primary question to be addressed quantitatively was whether the patient-centered interventions evaluated positively impact the quality of well-child care services, as measured by pre- and post- intervention changes in the quality of care measures.

**B. Population studied.** We worked with three pediatric offices in Oregon: 1) a rural site, Pediatricians of North Bend Medical Center (4 pediatricians), without electronic medical records for intervention #2 (SEF Site), 2) an urban site, Broadway Medical Clinic (8 pediatricians), located in Portland, Oregon without electronic medical records for intervention #1 (Global Feedback Site) and 3) an urban site, The Children’s Clinic (12 pediatricians), located in Tualatin, Oregon with electronic medical records for intervention #3 (PCW Site).

**C. Sample selection.** All pediatricians and select clinic and office staff participated in relevant baseline and follow up data collection. The following inclusion criteria were used to determine which parents/guardians of children were invited to participate in the interventions and/or evaluation from each participating study site:

- Parent has a well-child visit scheduled at this intervention site for one or more of their children.
- The child is scheduled for their 4-month to 3-year-old well-child visit and, therefore, is between the ages of 4 and 40 months (e.g. 40 month old children could be there for their 3 year well-child visit)
- The parent can read and understand English and is able to complete the intervention and evaluation tools.
- For intervention #3, the parent was able to access the online version of the Plan My Child’s Well-Visit tool and the online evaluation survey.

**D. Instruments used.** The evaluation and intervention instruments that were developed and implemented as a part of this study are described below.

**Evaluation Instruments:**

***Clinician and Office Staff Focus Groups.*** The baseline focus groups utilized CAHMI-developed standardized protocols to assess health care provider perceptions of their current practice on the aspects of care measured in the PHDS as well as their perceptions regarding barriers to providing recommended care and possible quality improvement strategies. Follow up focus groups assessed the same as well as feasibility and experience of implementing the interventions at each practice.

***Clinician Survey.*** A survey assessing the proportion of study site clinicians who implemented the intervention in targeted well-child care visits and the proportion of clinicians who reported the intervention was “valuable” in helping them to improve the well-child care they provide.

***Office Site Tracking System Data.*** Tracking system assessing the proportion of children who were supposed to receive the PHDS that were given the survey and the proportion of office staff who reported that the intervention was feasible to implement in their office.

***Promoting Healthy Development Survey.*** The parent-completed PHDS was administered before and after the intervention to assess changes in the quality of well-child care. Secondary questions were (1) whether equity of well-child care quality was improved as assessed by site-specific reductions in race/ethnicity, socioeconomic and other disparities in quality of well-child care services; (2) whether improvements occurred in the degree to which pediatric clinicians match care provided to children and parents most at risk or in need of that care (e.g. are mothers who have symptoms of depression more likely to be assessed for depression, etc.); and (3) whether more parents reported an enhanced

understanding of the purpose and value of well-child care visits. We compared the magnitude and significance of change scores and shifts in disparities across two time points (pre- and post- intervention implementation) for each site. See Appendix A for an example paper survey of the modified PHDS.

**Global Feedback Reports.** Tailored feedback reports based on the baseline PHDS data collected in each study site were distributed to the study site clinicians and office staff. The report displayed findings at an office- and health care provider-level using graphical, tabular and text-based methods on the four components of care of focus in this study: Anticipatory Guidance and Parental Education, Developmental Surveillance, Assessment of the Family, and Patient-Centered Care. See Appendix B for an example Global Feedback Report.

**Enhanced Encounter – Plan My Child’s Well Visit (PCW) online tool.** The Plan My Child’s Well (PCW) Visit is an online tool that parents complete prior to each well-child visit at the prompt of their child’s pediatrician. It takes about 15 to 20 minutes to complete. Parents complete questions and identify priorities specific to their child’s age before each well-child visit. Parents are asked screening and developmental questions about their child and then given a list of health and well-being topics based on the child’s age at the visit. When they pick their priorities for the visit, parents can click on each topic to read educational information from trusted pediatric experts to learn more. They are also given an opportunity to write in any concerns that are not on the list, and they receive a customized feedback report to print and use during the well-visit. The CAHMI worked with The Children’s Clinic-Tualatin office, a practice that includes 12 pediatricians, to incorporate parent’s responses into their electronic health record (EHR). The pediatricians and clinical staff view the parents’ responses and priorities before and during the visit so that they are prepared to focus on the parents’ needs during the visit. See Appendix C for an overview of the PCW tool.

**Shared Encounter Form (SEF).** This is a reduced paper-based analogy to the online Plan My Child’s Well Visit tool for use by pediatric offices that do not have EHR or as an in-office complement to the PCW when parents fail to complete this online tool prior to visits. Parents complete a one-page questionnaire in the waiting room prior to their child’s visit. The form covers the same questions and parent priorities as the online tool. The pediatrician and the parent then use the questionnaire to guide their visit and the parent is given a summary page for the visit that includes resources, follow-up information and details about the visit to take home. See Appendix D for an example of an age-specific SEF.

**E. Statistical techniques employed.** As described above, the evaluation of the interventions included both qualitative and quantitative data sources. Results from qualitative data sources (e.g. key informant interviews, focus groups and cognitive interviews) were analyzed using standard approaches to identify major themes across respondents. Qualitative data results for the baseline and follow-up study of the intervention sites (using the PHDS data) were conducting using basic descriptive statistics to describe each sample and applying standard independent samples T-tests and  $X^2$ -tests of statistical significance as appropriate (depending upon whether the measure was nominal or bivariate in nature) to assess differences in the PHDS measures for the baseline and follow-up samples. Follow-up analyses are planned to fit logistic and multi-level (across and within-practice provider groups) regression models for key evaluation measures, including an effort to control for differences in the baseline and follow-up study samples with regard to child and family demographics and health characteristics. These analyses will also assess the contribution of provider characteristics to the child-level variation in the evaluation measures.

#### IV. Detailed Findings

The evaluation of the PCQI interventions was designed to address the three primary research questions listed in Figure 1. For the results presented in this report, research question 1 was assessed for all three of the sites, and research questions 2 and 3 were assessed for the SEF and PCW sites. The findings related to each of these research questions are summarized in the following sections of this report.

**Figure 1. Primary Evaluation Questions for the PCQI Project**

<p><b>1. Is the patient-centered intervention feasible and acceptable to pediatric clinicians and office staff?</b> Assesses the degree to which pediatric clinicians and office staff are able to implement the intervention. A part of this in their perceived impact on the quality of the care they provide and the value of the intervention.</p> <p><b>2. Is the patient-centered intervention feasible and acceptable to parents?</b> Assesses the degree to which the intervention is feasible for parents to complete and whether the parent feels that the intervention improved their well-child care experiences and expectations.</p> <p><b>3. Does the patient-centered intervention positively impact the quality of well-child care as measured by the pre- and post-intervention changes in the PHDS quality of care measures?</b> The primary measures of the impact on clinical quality of care are from measures derived from the <i>Promoting Healthy Development Survey</i>. These measures focus on the impact of the intervention with regard to 1) Anticipatory Guidance and Parent Education (AGPE) – whether the parents AGPE information needs are met; 2) Developmental Surveillance – whether the provider asks if the parent has concerns about the child’s learning, development, or behavior and addresses those concerns; and 3) Family Assessment – whether the provider asks about issues in the family (e.g. parental depression, emotional support, changes or stressors, substance abuse).</p>
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**A. Feasibility, Acceptability & Value for Providers and Clinical Staff.** Follow-up surveys and focus groups with clinical staff and providers were used to assess the feasibility, acceptability and value of the interventions for providers and clinical staff. Providers and clinical staff (nurses and Medical Assistants [MAs]) at the SEF and PCW intervention sites completed follow-up surveys in January, 2011 (for the SEF site) and in December, 2012 (for the PCW site). Focus groups were conducted on November 7, 2011 (*Shared Encounter Form* site – providers only), November 17, 2011 (*Global Feedback Report only* site – providers only) and December 5, 2011 (*Plan My Child’s Well Visit Tool* site – providers only). The timeframes of the surveys and focus groups were selected to ensure that providers and staff could recall their implementation experiences but also had adequate time to fully implement the interventions. Findings for each of the interventions are briefly summarized below.

**Global Feedback Reports.** Providers at the site that implemented only the *Global Feedback Reports* found it feasible to implement the *Promoting Healthy Development Survey* and valued the information provided by the *Global Feedback Reports*. They noted that the clinical office staff (medical assistants and nurses) play an important role in the implementation of the survey. The response rates for the survey, varied considerably across providers. For the Global Feedback Report site these ranged from 18% to 60% for providers at follow-up, suggesting the importance of provider engagement in the administration process.

Providers reported that the *Global Feedback Reports* stimulated discussions and helped them to consider important aspects of their own practice, particularly related to assessment of the family environment, but they did use the findings to implement a practice-wide quality improvement (QI) activity. Following the Bright Futures Training and debriefing on the baseline *Global Feedback Reports*, the providers met to develop a QI activity but did not implement the activity, citing challenges related to identifying a tool to meet their needs and organizational capacity to coordinate among the providers (see Figure 2). These are important findings related to the feasibility using the *Global Feedback Reports* to

**Figure 2. Barriers to Implementing a QI Activity**

- Lack of time to plan the activity (4)
- Perception that the selected activity was of low priority relative to other demands (4)
- Lack of resources (staff time, materials, etc.) to implement the activity (3)
- Lack of support for the activity among nurses (2)
- Lack of support for the activity among pediatricians (2)
- Challenges identifying an area in need for improvement based on the Global Feedback Reports (1)

Note. Number of providers rating as a moderate barrier or quite a barrier on a four-point scale from not a barrier to an extreme barrier are shown in parentheses (N=5 providers). No providers rated any items as an extreme barrier.

stimulate provider- and practice-initiated quality improvement activities and suggest that additional support may be necessary to ensure the success of practice-wide endeavors.

**Shared Encounter Form.** The four providers at the SEF intervention site reported challenges related to integrating the SEF into their workflow, but highly valued the core components of the SEF intervention. The implementation of the SEF included a number of ancillary activities that were central to the goals of the project but somewhat separate from the SEF. To some extent, providers' perceptions of the implementation burden of the SEF appears to be tied to these activities. For example, as a part of their participation in the project, the providers decided to implement developmental screening, and therefore associated this activity (and added "paperwork") with the SEF intervention. Providers also reported that the culture of their office, in which providers operate very independently, made it challenging to implement the SEF and that this probably placed added burden on office staff, as each provider adopted an SEF process that was unique to address his/her own needs.

Fundamentally, the providers valued the core components of the SEF, items designed to: 1) help parents identify their children's strengths; 2) support parents' selection of priorities for the visit, and 3) provide developmental surveillance. Providers discussed how the strengths-based SEF question provided a helpful starting point for discussions with parents, how useful it is to have the parent identify priorities before the visit (because it is challenging to address all of the Bright Futures recommended topics), and how the developmental surveillance items helped to prepare parents for the visit and guide discussions between the provider and parent. All of the providers interviewed would like to continue to use the core components of the SEF (page 1 of the form) and want to work to further integrate this into their other physical assessment forms to better address some of their on-going concerns related to workflow.

**Plan My Child's Well Visit Tool.** Providers and staff reported that implementation of the PCW improved their office workflow and that they valued it as an important tool to support well-child care in their practice. Using a 5-point scale from "not at all difficult" to "extremely difficult," across 9 providers, and 4 staff members, no respondents indicated that it was "very difficult" or "extremely difficult" to implement the PCW into their office workflow. Although both the providers and staff acknowledged that they faced some initial hurdles in the process of implementing the PCW (e.g. use of the reminder system and new EHR forms), they agreed that once implemented, the tool reflected an improvement in their office process. For example, providers and staff noted that use of the tool: 1) freed up nurses' time to address new issues and topics; 2) helped providers to prepare for the visit before they met with the parent; 3) allowed nursing staff to print materials targeted to parents' needs before the visit; and 4) helped to prevent delays in the appointment time.

**Figure 3. Provider Focus Group – Comments on the SEF**

**Implementation/Workflow Challenges**

*"There was a feeling that there was more paperwork – especially with the developmental screening forms."*

*"We have 3 forms instead of 1."*

*"Multiple forms in the chart are hard to keep track of... it's hard to know where to look for information."*

**Value of the Tool**

*"The developmental surveillance section [gives] the parent the opportunity to think about whether or not the child can do the developmental task indicated."*

*"[The SEF] asks things I may forget or have a hard time bringing up in the visit."*

**Figure 4. Provider/Staff Focus Group – Comments on the PCW**

**Implementation/Workflow**

*"I liked being able to preview some of [the parent responses] before [the visit] – even at the beginning of the day." -- Pediatrician*

*"I like being able to pull the record open and see if they need the developmental Handout or ASQ so that I can have that ready before the doctor goes in there." – Nurse*

*"It helps the nursing staff because we didn't have to ask as many questions... I only asked what I needed to ask." -- Nurse*

**Value of the Tool for Providers**

*"You found out more about [the child's] home than you otherwise would ... Sometimes there would be something to talk about and I wouldn't have done that if it wasn't a CAHMI visit"*

*"I got more information about how the parent was doing than I did before – family issues."*

*"Most parents were putting down a lot more questions about what to expect about development and discipline."*



Providers found the tool to be of particular value with regard to supporting assessment of the family environment and efforts to target anticipatory guidance and parent education to the family's needs. They noted that after implementing the tool they felt better informed about their patient's home-lives, and suggested that the opportunity for parents to provide this information via the online tool may help to facilitate provider-parent conversations that are sometimes awkward or uncomfortable. Some providers also reported that parents had begun asking more questions about behavior and development since they implemented the tool and others indicated an increased focus on dental care. The providers have continued to use the tool beyond the project-period and hope to sustain it as a valuable part of their practice.

**B. Feasibility, Acceptability & Value of the SEF & PCW for Parents.** *Feasibility, acceptability and value of the tools were assessed by the office site tracking system data, response rates to the PHDS, and by items that were added to the follow-up PHDS. The additional PHDS items were designed to assess whether the SEF and PCW tools helped parents to identify topics for discussion and how the information was used at the visit; the usefulness of specific sections of the tool (e.g. the take-home carbon-copy page of the SEF), acceptability of the time required to complete the tool, and the overall value of the tool. In addition, both the survey for the PCW site and the survey for the SEF site included items designed to assess the educational materials that were included as a part of the interventions. A brief summary of the findings related to feasibility, acceptability and value of the Global Feedback Reports, SEF, PCW and educational materials for parents is provided below.*

**Global Feedback Reports.** Parent willingness to complete the PHDS is a key factor in assessing the feasibility of the Global Feedback Report intervention. Although the Global Feedback Report was the focus of the intervention at one site, all three sites conducted the PHDS at both baseline and follow-up. As shown in Table 1, across both administration time-points and the three sites, the response rate ranged from 38% to 54%. Given that the administration methodology did not involve extensive follow-up or telephone reminders with parents, this range of response rates suggests that completion of the survey is an acceptable activity for parents. In addition, the completion rate for the site that conducted the Online PHDS (the PCW site) was 92%.

**Table 1: Response Rates for the Promoting Healthy Development Survey (PHDS)**

	Global Feedback Report ONLY Site		SEF Site		PCW Site	
	Baseline	Follow-up	Baseline	Follow-up	Baseline	Follow-up
<b>Number of Responses</b>	517	404	231	210	551	275
<b>Response Rate</b>	54%	38%	40%	30%	44%	53%

The baseline version of the PHDS also included an item to assess the value of completing the tool for parents. Nearly six in ten parents (59.6%) reported that the PHDS helped them “learn about what [they] should expect at a well-child visit” (N=1253), with remaining reporting that it “somewhat” helped them (35.4%) or that it didn't help them (5%). In addition, 71.2% of parents who completed the Online PHDS planned to use the customized feedback report before or during their next well-child visit (N=514).

**Shared Encounter Form.** From June 7, 2010 through July 22, 2012, the SEF Intervention site collected 2,188 SEFs, and reported no parent refusals to complete the form, suggesting a high level of feasibility and acceptability to parents. Responses to the follow-up PHDS for the SEF site also suggest that the intervention is feasible and acceptable to parents and that it is a valuable part of their well-child visit experiences. Over eighty-eight percent (88.6%) of respondents reported that they were *comfortable with the amount of time it took to complete the SEF*. The remaining reported that they were somewhat comfortable (8.1%) or not really comfortable (3.3%) (N=211). Eighty-eight point two percent (88.2%) reported that they *would recommend the SEF to other parents*. The remaining reported that they were not sure (8.1%) or no, they would not (3.8%) (N=211).

With regard to the overall value of the tool, 56.2% of respondents reported that the SEF *increased the value of their child's well visit*; the remaining reported that it somewhat increased the value (29.5%) or that it did not really increase the value (14.3%) (N=211). Table 2 below summarizes the percentage of parents who indicated that the SEF was helpful with regard to a series of topics related to the provision of patient-centered care: prioritization of topics for discussion, discussing concerns, understanding what parents can talk about with their doctor, identifying health issues, asking questions,

and recognizing the family's strengths. As shown in the table, most parents found the SEF helpful with regard to supporting these aspects of patient-centered care.

**Table 2: Parent Report of Helpfulness of the SEF for Supporting Patient-Centered Care**

	Percentage of Parents Reporting the that the SEF was helpful with regard to the topic:		
	Yes	Somewhat	Not Really
Understanding what is recommended and what they can talk with their child's doctor or health care provider about (N=210)	85.7%	7.1%	7.1%
Discussing their child's learning, development, or behavior and any concerns they may have (N=210)	83.8%	11.9%	4.3%
Prioritizing topics to discuss with the child's doctor or health care provider (N=210)	81.9%	11.4%	6.7%
Identifying issues about their child's health that need to be addressed (N=210)	79.5%	13.3%	7.1%
Asking questions about how to keep their child healthy and safe (N=209)	74.2%	15.8%	10.0%
Learning more about the kinds of topics they can discuss with child's doctor or health care provider (N=210)	71.9%	20.0%	8.1%
Recognizing their family's strengths and how they can build off of them (N=209)	58.9%	22.5%	18.7%

**Plan My Child's Well Visit Tool.** From July 2010 through October 2011, 2,075 parents completed the PCW prior to their visit, for a 40.0% response rate for parents who kept their scheduled appointment. The response rate varied across providers, from 21.5% to 44.6%. Parents were asked to select up to five priorities for the visit and had the option of identifying an "other" priority for the visit. The average number of priorities selected was 2.96 (N=2,184), with 10.7% of parents who selected a priority identifying an "other" priority. Tables 3 and 4 below, displays the top 5 priorities that parents selected for each age group.

**Table 3: Five Most Frequently Parent-Selected Priorities by Well-Visit Age Type  
4-Month to 12-Month Well-Visits**

4-Month (n = 271)	6-Month (n = 313)	9-Month (n = 309)	12-Month (n = 322)
<ul style="list-style-type: none"> <li>• Introduction of solid foods (62.7%)</li> <li>• Behaviors to expect in the next few months (53.6%)</li> <li>• Teething and Drooling (42.2%)</li> <li>• Child's growth and weight gain (38.8%)</li> <li>• Establishing consistent daily routines /impact on behavior and sleep (32.7%)</li> </ul>	<ul style="list-style-type: none"> <li>• How much food your child needs, weight (57.6%)</li> <li>• What to feed your child, what to avoid (46.9%)</li> <li>• Behaviors to expect in the next few months (46.2%)</li> <li>• Sleep patterns and sleep routines (36.2%)</li> <li>• Fluoride for your child's teeth (21.7%)</li> </ul>	<ul style="list-style-type: none"> <li>• How much and what kinds of food your child eats (66.1%)</li> <li>• Behaviors to expect in the next few months (43.4%)</li> <li>• Feeding time strategies and self-feeding (31.9%)</li> <li>• Changes to your child's bed and naptime habits (30.2%)</li> <li>• Using a cup (19.7%)</li> </ul>	<ul style="list-style-type: none"> <li>• Nutritious foods and how much/what kinds of food your child eats (46.5%)</li> <li>• Behaviors to expect in the next few months (38.5%)</li> <li>• Ways to guide and discipline your child (30.6%)</li> <li>• Feeding time strategies, (25.5%)</li> <li>• Sleep routines and sleep habits (24.5%)</li> </ul>

**Table 4: Five Most Frequently Parent-Selected Priorities by Well-Visit Age Type  
15-Month to 36-Month Well-Visits**

15-Month (n = 201)	18-Month (n = 256)	24-Month (n = 283)	36-Month (n = 229)
<ul style="list-style-type: none"> <li>Behaviors to expect in the next few months (40.6%)</li> <li>Temper tantrums (37.1%)</li> <li>Your child's first check up with a dentist (27.9%)</li> <li>Ways to read to your child that promote language development (23.9%)</li> <li>Ways to guide and discipline your child (21.8%)</li> </ul>	<ul style="list-style-type: none"> <li>Toilet training (41.6%)</li> <li>Ways to guide and discipline your child (38.2%)</li> <li>Your child's moods and emotion (24.0%)</li> <li>How your child talks (22.3%)</li> <li>Issues related to feeding your child (21.0%)</li> </ul>	<ul style="list-style-type: none"> <li>Helping your child potty train (41.4%)</li> <li>Ways to guide and discipline your child (39.1%)</li> <li>Behaviors to expect in the next few months (33.1%)</li> <li>Your child's moods and emotions (24.1%)</li> <li>Signs your child is ready to potty train (24.1%)</li> </ul>	<ul style="list-style-type: none"> <li>Ways to guide and discipline your child (41.9%)</li> <li>Behaviors to expect in the next few months (39.2%)</li> <li>Your child's moods and emotions (34.1%)</li> <li>Sibling rivalry (31.8%)</li> <li>Issues related to preschool (14.7%)</li> </ul>

Responses to the Follow-up PHDS survey also suggest that parents found the intervention to be feasible and acceptable and that they valued using the tool as a part of their visit. Over 90% (92.4%) reported that they were *comfortable with the amount of time it took to complete the PCW tool*. The remaining reported that they were somewhat comfortable (6.4%) or not really comfortable (1.2%) (N=249). Ninety-two point two percent (92.2%) reported that they *would recommend the PCW tool to other parents*. The remaining reported that they were not sure (6.6%) or no, they would not (1.2%) (N=244).

When asked about the usefulness of the PCW features, the majority of parents reported each of the following features as “extremely useful” or “useful” (using a 5-point scale from “extremely useful” to “not at all useful”: 1) ability to complete the questions at home (97.2%); 2) ability to complete the tool before every visit, with age-specific questions (95.6%); 3) delivery of a report to the provider before the visit (88.5%); 4) access to online educational materials (84.3%); 5) availability of customized Visit Guide to take to the visit (64.7%); and 6) availability of a report to keep as a record for the family (57.8%).

With regard to the overall value of the tool, 64.3% of respondents reported that the *PCW increased the value of their child's well visit*, with the remaining reporting that it somewhat increased the value (27.4%) or that it did not really increase the value (8.3%) (N=252). Table 5 below summarizes the percentage of parents who indicated that the PCW was helpful with regard to a series of topics related to the provision of patient-centered care: prioritization of topics for discussion, discussing concerns, understanding what parents can talk about with their doctor, identifying health issues, asking questions, and recognizing the family's strengths. As shown in the table, most parents found the PCW helpful with regard to supporting these aspects of patient-centered care.

**Table 5: Parent Report of Helpfulness of PCW for Supporting Patient-Centered Care**

	Percentage of Parents Reporting the that the PCW was helpful with regard to the topic:		
	Yes	Somewhat	Not Really
Prioritizing topics to discuss with the child's doctor or health care provider (N=252)	85.7%	12.3%	2.0%
Discussing their child's learning, development, or behavior and any concerns they may have (N=250)	85.6%	10.8%	3.6%
Understanding what they can talk with their child's doctor or health care provider about (N=250)	81.6%	12.0%	6.4%
Identifying issues about their child's health that need to be addressed (N=251)	79.3%	14.7%	6.0%
Asking questions about how to keep their child healthy and safe (N=250)	71.2%	20.4%	8.4%
Recognizing their family's strengths and how they can build off of them (N=251)	46.2%	27.5%	26.3%

**Educational Materials and Activities.** In addition to the pre-visit tools, the SEF and PCW sites implemented educational materials and activities through 4 different mechanisms 1) educational materials imbedded into the PCW; 2) educational materials emailed to the parent after he/she completed the PCW; 3) site-specific educational websites (independent of the SEF and PCW tools); 4) after-visit educational handouts; and 5) after visit Ages and Stages (ASQ) developmental activities.

Usage data for the online educational websites and the PCW provide one measure of the acceptability and feasibility of these educational sources for parents. Over the course of the project, the stand-alone educational website for the PCW site received visits from 233 unique users who viewed at least one educational topic, with an average of 3.16 topics viewed per user. The stand-alone educational website for the SEF site received visits from 835 unique users who viewed at least one educational topic, with an average of 3.48 topics viewed per user. For the educational content that in the PCW, 302 parents (13.8% of PCW users) viewed at least one educational topic, with an average number of 3.37 topics viewed per user.

The Follow-up PHDS provided parent feedback on both the stand-alone and PCW-imbedded educational materials. Fifty-eight point one percent (58.1%) of parents who completed the PCW reported that they read at least one of the PCW-imbedded educational topics. Of these, the majority reported that they found these topics “extremely” or “very useful” for identifying new questions to ask their provider, giving them information so they didn’t need to ask the provider some questions, and giving them information that is helpful in taking care of their family (see Table 6 below).

**Table 6: Parent Report of Usefulness of the PCW-Imbedded Educational Material**

	Percentage of Parents Reporting that the PCW was useful with regard to the topic:		
	Extremely Useful or Very Useful	Moderately Useful	A Little Useful or Not at All Useful
Identifying new questions to ask their provider (N=142)	69.7%	22.5%	7.7%
Giving the parent information so they don’t need to ask the provider about some topics (N=146)	78.1%	17.1%	4.8%
Giving the parent information that is helpful in taking care of their family (N=145)	78.6%	15.2%	6.2%

The PCW is designed to email educational materials to parents immediately after they submit their responses to the PCW site based on the topics that they picked as priorities, but only 40.1% of parents reported that they remembered having received the materials (N=252). Ninety-three point one percent (93.1%) of these parents reported that the materials were at least somewhat helpful using a 3-point scale (N=101).

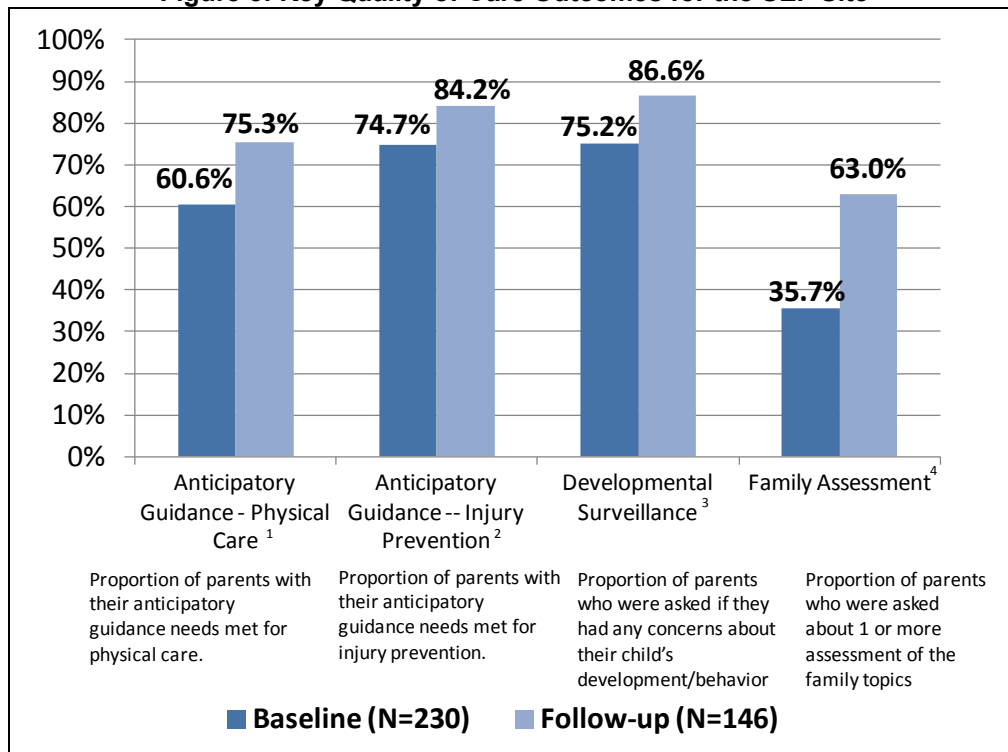
Of the parents who completed the follow-up PHDS for the SEF site, 7.7% reported that they visited the NBMCwellvisit.org website (N=208), and of the parents who complete the follow-up PHDS for the PCW site, 6.7% reported that they visited the TCCwellvisit.org website (N=253). The majority of parents who visited the educational websites for the SEF and PCW intervention sites reported that the information provided was “helpful” or “very helpful” (9 of 12 parents for the SEF site; and 15 of 16 parents for the PCW site), based on a 5-point scale from “very helpful” to “not at all helpful.”

**C. Impact of the SEF & PCW on Quality of Care Measures.** Eight age-specific versions of the PHDS Survey were developed and administered at baseline and follow-up to capture quality of care data related the primary research questions for the study, specifically quality of care related to 1) anticipatory guidance and parent education (separate measures for physical care, development and behavior and injury prevention), 2) developmental surveillance; 3) assessment of the family; and 4) patient-centered care.<sup>1</sup> In addition, a comprehensive quality of care measure was computed as a composite of these four measures. Although this study was primarily designed to assess the feasibility and acceptability of the interventions, these early quality of care findings provide insight into the potential impacts of the SEF and PCW interventions.

<sup>1</sup> Additional measures, including those related to standardized developmental and behavioral screening, follow-up for children at risk, patient engagement and activation, and care coordination were also collected using the PHDS.

**Shared Encounter Form.** Across the six quality of care measures considered for this evaluation, there was a statistically significant change in the desirable direction from baseline to follow-up for four of the measures at the SEF site: Anticipatory Guidance – Physical Care, Anticipatory Guidance – Injury Prevention, Developmental Surveillance, and Family Assessment. The results for these measures are shown in Figure 5. There were not statistically significant differences (in either the desirable or undesirable directions) for the Anticipatory Guidance – Development and Behavior or the Patient-Centered Care measures. However, for the Patient-Centered Care measures, over 90% of parents reported that their needs were met with regard to the provider starting the visit by asking about their questions or concerns at both baseline and follow-up; and over 90% of parents reported that the provider exhibited each of three characteristics of patient-centered care (*usually* or *always*) at both baseline and follow-up. Overall the mean number of aspects of care received (the *Comprehensive Care* measure) showed a statistically significant increase from baseline to follow-up.<sup>ii</sup>

**Figure 5: Key Quality of Care Outcomes for the SEF Site**

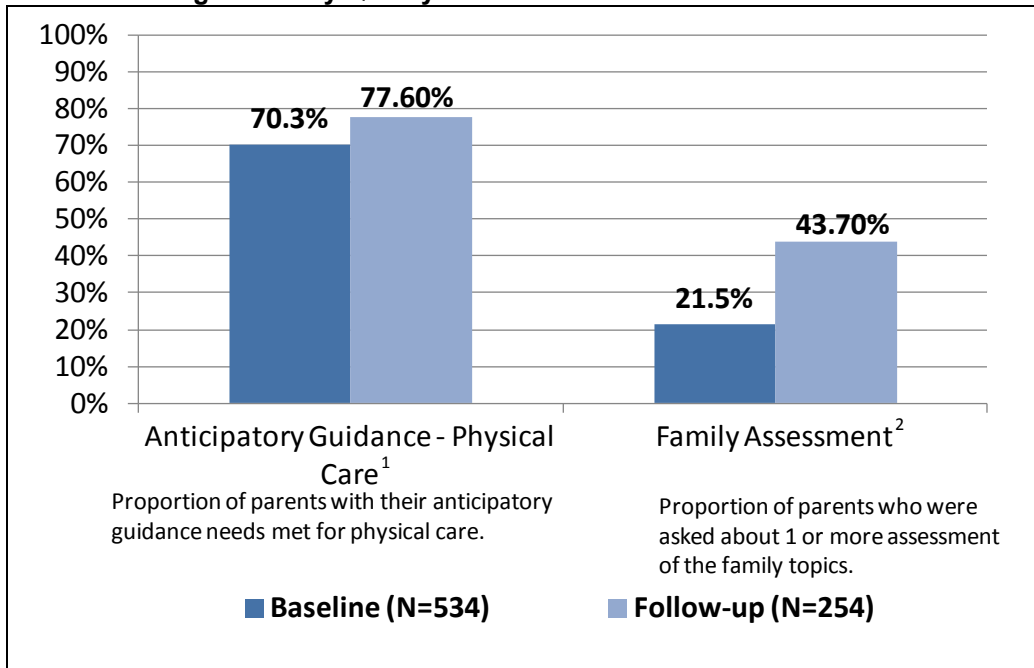


1.  $p=.003$  based on Pearson's  $\chi^2$  test for a statistical difference between groups at baseline and follow-up (2-sided).
2.  $p=.028$  based on Pearson's  $\chi^2$  test for a statistical difference between groups at baseline and follow-up (2-sided).
3.  $p=.008$  based on Pearson's  $\chi^2$  test for a statistical difference between groups at baseline and follow-up (2-sided).
4.  $P<.001$  based on Pearson's  $\chi^2$  test for a statistical difference between groups at baseline and follow-up (2-sided).

<sup>ii</sup> Results are statistically significant at the  $\alpha=.05$  level, based on results of t-test for difference between means for independent samples.

The **Plan My Child's Well Visit Tool**. Across the six quality of care measures considered for this evaluation, there was a statistically significant change in the desirable direction from baseline to follow-up for the Anticipatory Guidance – Physical Care and Family Assessment measures for the PCW site. The results for these measures are shown in Figure 6.

**Figure 6: Key Quality of Care Outcomes for the PCW Site**



1.  $p=.033$  based on Pearson's  $\chi^2$  test for a statistical difference between groups at baseline and follow-up (2-sided).
2.  $p<.001$  based on Pearson's  $\chi^2$  test for a statistical difference between groups at baseline and follow-up (2-sided).

There were no statistically significant differences (in either the desirable or undesirable directions) between the baseline and follow-up results for the Anticipatory Guidance measures related to development and behavior, and injury prevention; the Developmental Surveillance measure; or the Patient Centered Care measure. However, similar to the findings for the SEF site, at both baseline and follow-up for the Patient Centered Measures, over 90% of parents had their needs met with regard to the provider starting the visit by asking about their questions or concerns and over 90% of parents reported that the provider *usually* or *always* exhibits each of three characteristics of patient centered care. The mean number of aspects of care received (the *Comprehensive Care* measure based on measures of anticipatory guidance/parent education, developmental surveillance, family assessment, and patient centered care) showed a statistically significant increase from baseline to follow-up.

## V. Discussion and Interpretation of Findings

The following sections summarize key conclusions related to the detailed findings presented above, discuss limitations of the evaluation of the PCQI project, propose future applications and areas for research and development of the PCQI interventions, and discuss policy implications of this project.

**A. Key Conclusions.** The findings from the evaluation of the PCQI interventions suggest that both the SEF and the PCW are feasible and acceptable to providers, office staff and parents and that they may result in improved quality of care for children and parents. In addition, the qualitative and quantitative findings from the evaluation provide a number of important lessons to inform future efforts to implement practice-level quality improvement initiatives for well-child care. The implications of four key findings related to PCW and PHDS are discussed in further detail below.

**1) Online Pre-Visit Tools May Improve Office Flow.** While the pediatricians at the site that implemented the paper-version of the pre-visit tool felt that the tool (and associated activities) increased the paperwork in the office and required additional coordination that was sometimes challenging, the pediatricians and staff at the site that implemented the online version of the tool believed that it ultimately improved their workflow. Of particular interest for future work is the finding that nursing staff at the PCW site found themselves unsure of how to use their time with patients when the patient had already outlined their priorities for the visit and submitted health screening (e.g. developmental surveillance) information using the online tool. At a time when most pediatric providers and staff report that they have too little time for well-child visits, this findings is particularly salient. Having parents complete information in advance of the visit reduces the requirements for what must be accomplished in the limited window of time for the appointment and potentially frees up nursing staff to provide additional services (e.g. topic-specific anticipatory guidance).

**2) The PCW Provides a Unique Opportunity for Parent Education.** Based on the results of the follow-up PHDS at the PCW and SEF sites, only 7% to 9% of parents accessed the websites that were dedicated to educational materials. However, 58.1% of the parents who completed the PCW reported that they read at least one of the educational topics on the PCW.<sup>iii</sup> Applying this rate to an estimated 40% of parents who complete the PCW, a conservative estimate of the percentage of parents who would view the embedded educational materials in advance of the well-child visit is approximately 23%. This suggests that embedding educational materials in an online pre-visit tool is a promising method for providing educational content to parents.

In addition, by reaching parents in advance of the visit, this method helps to “prime” the parent for the visit, making him or her a more active and engaged partner in the child’s care. The evaluation results also suggest that the experience of completing the tool is itself an educational experience – for example, 82% of respondents to the follow-up survey reported that the PCW was helpful for *understanding what they can talk about with their child’s health care provider* (N=250). With this model, the pre-visit tool becomes an extension of the office visit to enhance the parent experience with education and anticipatory guidance that extends beyond the walls of the office.

**3) Pre-Visit Tools (such as the SEF & PCW) May be Particularly Useful for Supporting Efforts to Assess the Family Environment.** Across all three focus groups, providers reported that family assessment is a particularly challenging area for pediatricians to address. They noted that they have trouble finding ways to ask about potential stressors in the family environment and that parents are often unaware that these are topics that can be discussed in the context of the well-child visit. However, findings from the follow-up PHDS surveys indicate that most parents think that family assessment should be addressed by pediatric providers: 81.3% of parents who completed follow-up PHDS for the SEF-intervention site (N=209) and 86.6% of parents who completed the PHDS for the PCW-intervention site (N=253) reported that their child’s doctor or health care provider should ask family assessment questions.

Findings from the provider and staff focus groups, parent-reported feedback on the tools, and parent-reported quality of care measures suggest that using a pre-visit tool is helpful for sharing information about the child’s home life with the provider and for supporting the provider’s efforts to provide family assessment. For example, providers at the PCW intervention site who participated in the focus groups reported that they felt better informed about the child’s home life after implementing the tool, and providers at the SEF intervention site discussed how the SEF helped to initiate important discussions with the family about the child’s home environment. In addition, the Family Assessment quality of care measures showed statistically significant change from baseline to follow-up in the desirable direction for both sites. Clearly, family assessment is an essential area of practice for which pediatric providers need support, and pre-visit tools appear to provide an important avenue for providing this support. As efforts are undertaken to improve family assessment in pediatric practices, it is important to be aware that providing providers with resources for referrals to follow-up on assessment findings is an essential component of the process (the PCQI sites received this support). Providers need comprehensive support to improve family assessment, including tools that help facilitate important dialogues with families, such as the PCW, and resources that they can use to provide information and make referrals when they identify issues within the family environment.

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<sup>iii</sup> Based on the Follow-up PHDS results for the PCW intervention site (N=218).

**4) Practices Need Support to Use Data (e.g. from the Promoting Healthy Development Survey) to Inform Quality Improvement Activities.** Across the sites, the providers valued the information provided by the PHDS, but only the two sites that received extensive support from the CAHMI successfully implemented quality improvement initiatives that were tailored to the survey findings. The site that did not receive this support reported that despite initial efforts to design an intervention, their efforts lost momentum and were ultimately abandoned. Given the time-demands that pediatricians face in their day-to-day operations and the level of coordination required to implement change across a practice, this finding is likely to be reflective of experiences in other pediatric settings as well.

The experience of the PCQI project suggests that practices need external support to carry out QI activities, but that this support needs to be provided in the context of the unique culture of the practice. Each of the PCQI intervention sites had very distinct practice cultures that affected the approach to developing and implementing the QI activity. For example, even after participating in a series of development meetings for the SEF, providers at the SEF-site each required a high level of customization of processes related to implementing the SEF (e.g. workflow processes, educational materials provided, and development screening strategies). In contrast, the providers at the PCW site, met as a team to agree to provide educational materials, ASQ learning activities, or developmental screening based on the results of the PCW; and reported a lower level of individual deviation from these approaches. These different approaches are reflective of the cultures of the offices, one in which the providers act as independent physicians and another in which the providers had an existing infrastructure for meetings and collaboration. These findings suggest that assessing the office culture is an important first step to using the PHDS results to guide practice-level quality improvement and point to the need for a readiness tool – for example an *Engagement Readiness Assessment* – to support providers and practices in preparing for the implementation of a tool such as the SEF or PCW.

Pediatricians in all three groups expressed support for the concept of the online version of the PHDS, and were excited by a PHDS model that could be used for Maintenance of Certification (MOC) credit. The existing CAHMI-developed Online PHDS Toolkit provides a platform on which to build this model, by allowing sites to register and customize the Online PHDS survey administration to their needs. Recognizing that practices need support to use the PHDS survey to inform quality improvement, the target audience for the Online PHDS Toolkit may not be individual practices, but rather organized groups of practices such as Improvement Partnerships or Learning Collaboratives.

**B. Study Limitations.** This study employed quantitative and qualitative methodologies to evaluate three separate interventions in three different pediatric offices. The qualitative data are informative for better understanding the quantitative results and for informing future directions for the interventions. They were not intended to be summative in nature or generalizable beyond the participating practices.

The quantitative data were primarily collected by means of baseline and follow-up administrations of the PHDS. Due to the differences in practice sites (e.g. rural versus urban), the study was not designed to make formal comparisons among the practices. Instead, the baseline data for each site served as the comparison group for the follow-up data (collected after the implementation of the intervention). The samples at each site were independent. As a result, differences observed in quality of care findings between baseline and follow-up may have been attributable to differences in the population that was included in each of these samples. At the PCW-site this issue may have been more pronounced because only those parents who completed the PCW were invited to complete the follow-up survey (therefore a subset of the parents who had a well-child visit during the follow-up survey period).

Descriptive statistics were used to compare the baseline and follow-up samples on demographic and family characteristic variables at each intervention sites. For the PCW intervention site, statistically significant differences between the baseline and follow-up samples were found for several key characteristics: child's birth order, number of children in the household, child's TV-viewing, and parental depression. For the SEF intervention site the baseline and follow-up samples differed with regard to the child's age, birth order and frequency of reading. For the Global Feedback Report site, the baseline and follow-up samples differed with regard to the child's age, frequency of reading, and amount of TV-watching. The CAHMI is currently undertaking a multi-level modeling analysis to assess the contribution of provider and child-level factors to the quality of care measure findings.

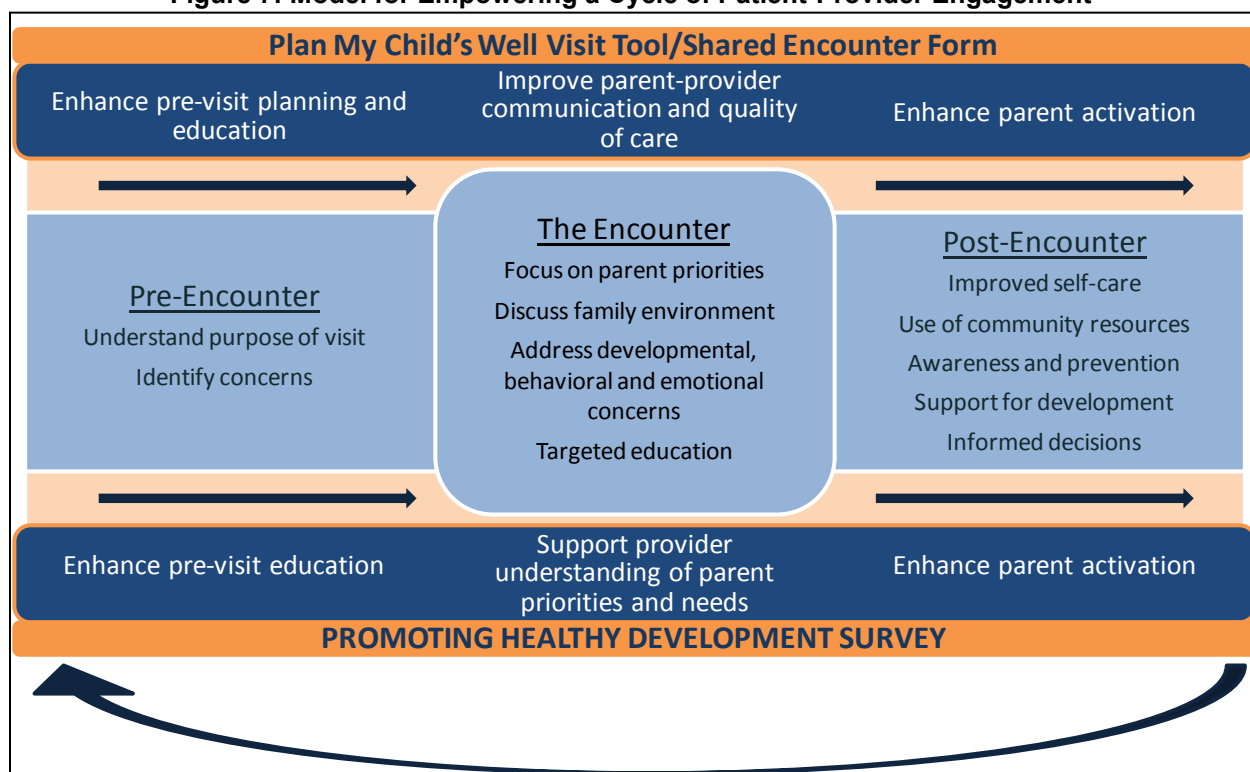


**C. Future Applications and Areas for Research & Development.** As the CAHMI has begun releasing these early evaluation findings, the prototype PCW tool has received national recognition and interest from health policy leaders, providers, and EHR leaders nationwide who are eager to see it implemented more widely and in other settings. There is also interest in adapting the tool for other populations such as adolescents, children with special health care needs, and adult populations. Based on this interest, the CAHMI team identified five primary areas for research and development for future applications tools developed through the PCQI project.

- 1. Development of a PCW Tool for Broad Public Use.** The current PCW tool is customized to meet the needs of PCQI PCW-intervention site. In response to the excitement generated in the field for the PCW, the CAHMI is maintaining its use at the intervention site and is investing in the development of a public-use tool for use across diverse practice types (including those with and without electronic health records or EHRs). Although this model is grounded in learnings from the PCQI project, there remain important questions to be addressed about alternative implementation strategies for a public use version of the PCW. For example, what are the most effective methods for engaging parents and providers in use of the tool when the practice lacks an EHR? Providers have expressed an interest in other versions of the PCW, designed specifically for groups such as adolescents or children and youth with special health care needs. Having successfully implemented the tool for one population, subsequent implementation might apply the same model to meet the unique needs of these populations. In designing the public use version of the tool the CAHMI is considering the need to develop a platform that is adaptable and scalable to meet these different needs.
- 2. A Mobile Well Visit Planner App.** The CAHMI team was recently recognized as one of three applications awarded in the national *Relevant Evidence to Advance Care and Health (REACH) Challenge*, sponsored by Academy Health and Health 2.0. for a concept proposal for a Mobile Well Visit Planner App. This is a concept that has received a great deal of traction from our advisors and partnering practices because it would allow parents to complete the PCW tool wherever and whenever they have time available. Evaluation findings suggest that one barrier to use of the PCW tool, is the limited amount of time that new parents have to complete the tool. A mobile application would create new possibilities for when and where parents complete the tool, including the option of using it as a waiting room tool. The CAHMI has begun developing design specifications for a *Well Visit Planner* mobile app.
- 3. Beta Testing for EHR Integration.** Providers are excited about the integration of the PCW results into the EHR, and the PCQI project evaluation suggests that this is an effective tool for helping providers to integrate the parent-reported information into their practice. The CAHMI worked extensively with the partnering practice to support integration into the EHR during the PCQI project. Although this integration was ultimately successful, the next phase of work in this regard is to identify and define a model for integration that takes into consideration the multitude of EHR systems currently serving pediatric practices and that provides specifications that can be replicated across systems.
- 4. Development of Provider & Organizational Engagement Readiness and Parent Engagement Assessment Tools.** The PCQI project has highlighted the differences that exist between providers and practices with regard to both practice culture and readiness to engage parents as partners in care. Yet the research undertaken to identify measures of patient engagement to support this evaluation revealed a gap in available measures in this area and the measures of patient-centered care (a related concept) that were selected were found to lack sufficient sensitivity to be of value at the practice-level. The development of an *Engagement Readiness Toolset* is an important area of work so that these tools can be used not only to support research related to patient engagement (and the corresponding connection to patient outcomes) but also to support organizational transformation and clinical quality improvement.
- 5. Development of a Quality Improvement Package that includes the SEF/PCW and PHDS as tools to enhance Patient Engagement.** Figure 7 provides a model for empowering a cycle of patient and provider engagement using the PHDS and PCW/SEF as a suite of quality improvement (QI) activities. The PCQI evaluation suggested that parents recognize the educational benefits of the PHDS for informing them what to expect at their visit and that providers value the information provided in the Global Feedback reports for informing their clinical practice; and both parents and

providers reported that the PCW and SEF tools helped parents to understand topics they could discuss with their provider and helped providers to better understand the home environment. Taken together, these tools provide a QI package that can be used to enhance parent and provider engagement and ultimately parent and child activation and clinical outcomes. Next steps should include further exploration of these tools as an integrated package for supporting practice-level QI (including models that use the SEF and PCW to ensure that all parents complete a pre-visit tool, regardless of online access), and research to assess the links between the components of this conceptual model and parent/child engagement, activation and clinical outcomes.

**Figure 7: Model for Empowering a Cycle of Patient-Provider Engagement**



**D. Policy Implications.** Both the SEF and PCW provide important tools for engaging families in pediatric well-child care, at a time when youth and family engagement are a greater focus of the national agenda for improving health care quality for children. Youth and family engagement are prominent components of discussions related to improving care through patient-centered medical homes (PCMH) and enhancing care coordination for children and youth with special health care needs. Currently PCMHs are viewed as mechanisms for enhancing the quality of primary care by achieving a more patient-centered model that uses a systems-based approach to care to enhance access, care coordination, and efficiency in primary care settings. Nonetheless, a 2010 review of the models and practices for engaging patients and families in the Medical Home found that current approaches do not fully leverage opportunities for engaging patients and families in care at the individual, practice, and policy levels. The findings from this project suggest that pre-visit tools for well-child care, and especially the PCW, have an essential role to play in supporting meaningful parent engagement in their child's health and as such, can be used to support policy efforts designed to enhance care coordination and the development of PCMHs.

## VI. List of Products

### A. Presentations

Bethell, C. *The Well-Visit Planner Mobil App*. AcademyHealth Annual Research Meeting (ARM), June, 2012.

Bethell, C., Kilty, E., Reuland, C., McCracken, K., and Wilhelm, *Getting the Patient Voice into the EMR: Using Parent-Completed Pre-Visit Tools To Customize Care and Improve Well Child Care*. Pediatric Academic Societies, April, 2012.

Bethell, C., Reuland, C., and Kilty, J. *Getting the Patient Voice into the EMR: Using Patient-Completed Pre-Visit Tools to Customize Care*. American Academy of Pediatrics National Conference and Exhibition, October, 2011.

Bethell, C., Reuland, C., and McCracken, K. *Putting Bright Futures into Practice*. Presentation to AAP Prevention Services Improvement Project (PreSIP) Practices, October, 2011.

### B. Products Developed With Support from this Grant

**1. Input Process Protocols for Engaging Providers, Staff, Parents and Advisors.** As a part of the PCQI project, the CAHMI team developed a process and accompanying materials to support extensive provider, staff, parent and expert advisor engagement in the development of the PCQI interventions. The engagement process supported the iterative development of each of the PCQI interventions and included: 1) facilitation of routine Expert Advisory Committee meetings using supporting materials; 2) moderation of focus groups with providers and staff; 3) key informant interviews with providers and staff; and 4) cognitive interviews with parents. This approach serves as an important model for future projects both for work directly related to the PCQI project and for other projects that involve multi-stakeholder engagement.

**2. Promoting Healthy Development Survey (PHDS) & Global Feedback Report – Updated/Modified.** (See Appendices A & B for examples of the survey and report). A modified version of the PHDS was developed to serve as the parent-completed evaluation tool in this study. The PHDS, which was developed by the CAHMI, is a parent-completed survey tool that has been validated to assess the quality and equity of nationally recommended well-child care services provided in the context of communication between parents and pediatric clinicians. It has been widely used at the system, plan and provider level and is endorsed by the National Quality Forum. Key modifications and enhancements undertaken as a part of this study are outlined below. Each of these modifications were undertaken using a process that included extensive cognitive testing with 16 parents of young children, a provider input process, and expert review and feedback from the PCQI Advisory Committee.

- Revisions to the PHDS content to support alignment to the updated Bright Futures Guidelines.
- Development of eight age-specific versions of the PHDS to increase sensitivity and specificity of the tool (4, 6, 9, 12, 15, 18, 24, & 36 month versions).
- Development and incorporation of a scale to measure parent engagement and partnership with their child's health care provider.
- Development of online and paper versions of the eight age-specific versions of the modified-PHDS, including a customized feedback report for parents who complete the online tool.
- Development of tailored provider- and practice-level Global Feedback Reports based on the modified –PHDS, including an Executive Summary of findings, feedback tailored to QI efforts, quality findings presented in the context of parent behaviors, site-specific resource lists, and an automated process for report production.

**3. The Shared Encounter Form.** (See Appendix D for an example). The SEF was developed as a paper-based waiting-room tool to: 1) standardize the process by which recommendations for well-child are accomplished; 2) prioritize the time spent by providers to focus on addressing issues that are most important to the family; and 3) provide the parent a written summary of what happens at the visit and instructions or information for follow-up. Parents complete the one-page questionnaire in the waiting

room prior to their child's visit. The pediatrician and the parent then use the questionnaire to guide their visit and the parent is given a summary page for the visit that includes resources, follow-up information and details about the visit to take home. The SEF was designed using a process that included 1) establishment of core design parameters for the content and layout by the PCQI Advisory Committee; 2) iterative expert review by PCQI Advisory Committee members and AAP staff working on the HRSA Bright Futures Implementation manual; 3) key informant interviews with providers at the SEF site; and 4) final formatting and production for the SEF and related parent education materials.

**4. The Plan My Child's Well Visit Tool (PCW).** (See Appendix C for an overview of the tool). The CAHMI developed the Plan My Child's Well Visit tool (PCW) to engage parents as partners to improve well-child care services as a part of the PCQI project. The tool is designed to prioritize time spent with pediatric providers by focusing attention on pre-identified health risks and concerns, and questions and topics most important to the family; thereby optimizing short visit times and closing the documented and often large gaps in pediatric providers' success in addressing child, family and parent concerns and risks.

The PCW asks parents a set of standardized, pre-visit questions about Bright Futures recommended health risk and educational topics to be addressed in each well-child visit (the PCW includes 8 age/visit-specific versions). Validated questions assess the child's physical health, family risks (e.g. parental depression), and elicit parent priorities for anticipatory guidance and education (e.g. child behavior, injury prevention, nutrition, sleep). At the PCW site that participated in the PCQI project, parent responses to the PCW were integrated into the practice's EHR. In addition to utilizing a development process similar to the one described for the SEF, the work to develop the PCW-EHR link, included extensive provider and staff engagement to 1) redesign the EHR forms to align to Bright Futures; 2) identify opportunities to integrate the PCW content into the existing, redesigned, and new EHR forms; and 3) identify appropriate EHR flags based on parent responses to support clinical decision making.

**5. Stand-Alone Parent Education Websites (Customized for the SEF & PCW Sites).** As a part of the PCQI project, the CAHMI developed educational websites for parents of children 3 months to 4 years that include visit-specific educational materials (8 age-specific sets of materials) that are aligned to the Bright Futures Guidelines for well-childcare. These materials provide education and anticipatory guidance in a parent-friendly manner and address topics that fit within categories such as: *How you and your family are doing*, *Your growing and developing child*, *How your child is eating and growing*, *Your child's dental health*, and *Your child's safety*.

**6. Parent Engagement Materials.** (See Appendix E for example parent engagement materials). As a part of the PCQI project, the CAHMI developed packets of materials to support practice-level implementation of the PHDS, SEF and PCW. These materials were developed with expert advisor input and cognitive testing with parents. They provide a foundation for the development and synthesis of parent engagement materials to support the development of a toolkit for implementing the PCW and SEF in other contexts. The parent engagement materials include:

- Frequently Asked Questions (FAQ) sheets for parents (PHDS)
- Pediatrician and Staff Tip-Sheets (PCW)
- Provider and Office Staff Scripts (PHDS and SEF)
- Parent Engagement Posters – waiting room & exam room versions (PHDS, SEF & PCW)
- Parent Invitation/Reminder Post-Cards (PHDS & PCW)
- Email Invitation Scripts (Online PHDS)
- Telephone Invitation Script (Online PHDS)

**7. Well Visit Planner App Concept Proposal.** Providers, parents and national children's health policy leaders expressed interest in a mobile Well Visit Planner App that would allow parents to complete the PCW at times and in places where they may not have access to a computer. In response to this interest, the PCQI project team developed a concept proposal for a Well Visit Planner (WVP) App. The concept proposal for the WVP App was competitively selected as one of three innovative IT applications awarded in the national (*REACH*) *Challenge*, sponsored by AcademyHealth and Health 2.0 (See Appendix F for the press release). The CAHMI continues to work towards the development of the App (as current funding allows).

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## APPENDICES

- Appendix A:** Example Paper Version of the Modified Promoting Healthy Development Survey (PHDS) – SEF Site at Follow-up: Age Version 36 Months.....Page A1 – A11
- Appendix B:** Example Global Feedback Report – Practice-Level. *Note. Provider-level reports are also available*.....Page B1 – B12
- Appendix C:** Overview of the Plan My Child’s Well Visit Tool (PCW): One-page Overview and Slide-Set with Examples of EHR integration.....Page C1 – C14
- Appendix D:** Example Shared Encounter Form (SSEF) – Age Version 36 months.....Page D1 – D3
- Appendix E:** Example Parent Engagement Materials.....Page E1 – E5
- Appendix F:** Reach Challenge Press Release for Well Visit Planner Mobile App.....Page F1

## 36 Month Well-Child Visit

# Promoting Healthy Development Survey

### What is this?

This survey is about your child's **well-child visit** and **what is recommended** to be talked about during this visit. It also asks for your feedback on the *Well-Visit Form* that you completed during your visit.

- **Well-child visits** are visits that are made to a doctor or health care provider when your child is *not* sick, but needs a routine check-up. When answering the survey, do not include care your child got when he or she was sick, stayed overnight in the hospital or went for a dental care visit.
- A **doctor or other health provider** can be a general doctor, a specialist, a pediatrician, a nurse practitioner, a physician assistant, a nurse or anyone else your child would see for health care.

### Who should complete this survey?

- The survey should be **completed by** the person who **took your child to the well-child visit**.
- This survey should be **answered about ONE child**. If you have more than one child this age who had a well-child visit on the day you got this survey (for example: Twins), you should complete the survey for one child of your choice.

### Why does your doctor or health care provider want you to complete this survey?

- The pediatricians at [REDACTED] want to partner with you to help your child to **get the best health care** possible.
- [REDACTED] is **asking you to complete** this **anonymous survey** so that they can learn about the information parents want and need.

### Will completing this survey affect my child's health care?

- Do not write your name or your child's name on this survey. The survey is **anonymous**.
- Your doctor or health provider will not see individual responses to the survey or know who completed the survey.
- If you choose to not answer the survey, the decision will have **no effect on the health care** you or your child receive or on your **health care benefits**.
- If you begin to answer the questions and then change your mind, **you may stop at any time**. Also, if there are particular questions that you don't want to answer, you may skip them. If you choose to skip or not answer any questions it will have no effect on the health care you or your child receive or on your health care benefits.
- By completing this survey, you are **indicating that you have given your consent** to participate.

#### Instructions

1. Please use a BLUE or BLACK ink pen to complete this survey.
2. Answer all the questions by checking the box on top of your answer like this:

Yes       No



**SECTION I: CHILD'S WELL-CHILD VISIT HEALTH CARE PROVIDER**

1. Which [redacted] health care provider did your child see for the well-child visit at which you received this survey? *Select one:*

- 1  [redacted]
- 2  [redacted]
- 3  [redacted]

- 4  [redacted]
- 5  Other: \_\_\_\_\_

**SECTION II: YOUR FEEDBACK ON THE WELL VISIT FORM**



During your child's well visit you were asked to complete a *Well Visit Form*.

We would like to learn how you used the *Well Visit Form* during your well-child visit, whether you found it helpful and appropriate, and how it impacted the care you received.

2. Overall, did the *Well Visit Form* increase the value of your child's well child visit at North Bend Medical Center for you?

- 1  Yes
- 2  Somewhat
- 3  Not Really

3. A section of the *Well Visit Form* asked you to identify priorities for discussion during the visit.

3a. Did this section help you **learn more about the kinds of topics that you can discuss with your child's doctor or health provider**?

- 1  Yes
- 2  Somewhat
- 3  Not Really



3b. Did you pick one or more topics to discuss?

- 1  Yes → **Go to Question 3c**
- 2  No → **Go to Question 4**

3c. Did your child's doctor or other health provider **talk with you or give you information** about all of the topics that you picked?

- 1  Yes
- 2  No, but it was okay with me that we didn't talk about some of the topics
- 3  No, and there are topics that I wish we had talked about

3d. Did your child's doctor or other health provider **talk with you or give you information** about any of the topics that you selected?

- 1  Yes, and my questions about these topics were answered
- 2  Yes, but my questions about these topics were not answered completely
- 3  No

4. A section of the *Well Visit Form* asked you specific questions about **your child's health** and about **you and your family**.

4a. Did this section help you to **identify topics about your child's health** (e.g. major illnesses or hospitalizations) to discuss with your child's doctor or healthcare provider?

1                       2                       3   
 Yes                      Somewhat                      Not Really

4b. Did this section help you to **identify topics about you and your family** (e.g. changes or stressors at home) to discuss with your child's doctor or healthcare provider?

1                       2                       3   
 Yes                      Somewhat                      Not Really

GENERAL HEALTH INFORMATION	Yes	No	unsure
Since your last visit, has your child had any MAJOR illnesses and/or hospitalizations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have any of your child's relatives developed new medical problems since the last visit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your child live in more than one home (e.g. divorced parents)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do your child's eyes appear unusual or seem to cross, drift, or be lazy?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do any adults who are around your child smoke (includes inside or outside the house)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you feel unsafe in your current relationship?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is there a partner from a previous relationship who is making you feel unsafe now?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In the past year, have you or your child been hit, kicked, punched or otherwise hurt by someone?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In the past year, has your partner or other family member belittled, bullied, or screamed at you or your child?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Who takes care of your child most days of the week?	<input type="checkbox"/> Child's mother <input type="checkbox"/> Child's father <input type="checkbox"/> Other relative (e.g., grandmother) <input type="checkbox"/> Nanny <input type="checkbox"/> Daycare <input type="checkbox"/> Other: _____		
How many times in the last two weeks have you gone out socially or spent time doing hobbies, self-care or spare-time activities you enjoy?	<input type="checkbox"/> None <input type="checkbox"/> 1-2 <input type="checkbox"/> 3-5 <input type="checkbox"/> >5		
In general, how well do you feel you are coping with the day-to-day demands of parenthood?	<input type="checkbox"/> Not very well at all <input type="checkbox"/> Not very well <input type="checkbox"/> Somewhat well <input type="checkbox"/> Very well		

4c. This section asked you specific questions about **you and your family** (for example, if there had been any changes or stressors at home lately). Should your child's doctor or health care provider ask these questions?

1                       2                       3   
 Yes                      No                      Not Sure

5. A section of the *Well Visit Form* asked you specific questions about **your child's development** and what he or she is able to do.

Did this section help you to **identify things to discuss** with your child's doctor or healthcare provider?

1                       2                       3   
 Yes                      Somewhat                      Not Really

YOUR CHILD'S SKILLS AND DEVELOPMENT CHECK			
Please check each box your child is able to do right now.			
<b>Gross Motor</b>	<b>Fine Motor</b>	<b>Social/Emotional</b>	<b>Cognitive/Communicative</b>
<input type="checkbox"/> Roll up to stand	<input type="checkbox"/> Bring 2 small objects held in hands	<input type="checkbox"/> Play part-to-care	<input type="checkbox"/> Imitate vocalizations & sounds
<input type="checkbox"/> Stand alone	<input type="checkbox"/> Put a small object in a cup	<input type="checkbox"/> Let you know they want something by pointing at it	<input type="checkbox"/> Imitate with inflections of normal speech
		<input type="checkbox"/> Wave bye-bye	<input type="checkbox"/> Speak 1 word (other than name or date)
		<input type="checkbox"/> Imitate household activities	
PROVIDER NOTES - Office Use Only _____			

5a. Did this section help you learn more about your child's development and the different areas of development (e.g. fine motor, gross motor, communicative, social-emotional)?

1                       2                       3   
 Yes                      Somewhat                      Not Really

6. Overall, how useful was the *Well Visit Form* for focusing your time with your child's doctor or health provider on what is most important to you and your family?

1                       2                       3                       4                       5   
 Extremely Useful                      Very useful                      Moderately useful                      A little useful                      Not at all useful

**7.** Did you like that you were given a **carbon copy summary of your visit** to take home?

- 1  Yes      2  Somewhat      3  Not Really      4  I don't remember or I did not get a copy  
 → Go to Question 8

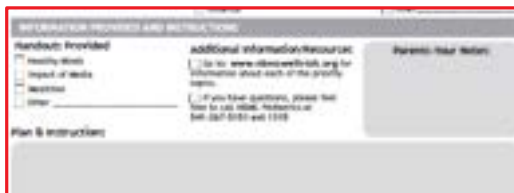
**7a.** The first section of the summary lists **tests and vaccines** that your child received. Was this section useful?

- 1  Yes      2  Somewhat      3  Not Really



**7b.** The second section of the summary provides information about **resources for you and your family**. Was this section useful?

- 1  Yes      2  Somewhat      3  Not Really



**7c.** The last section of the summary lists **information about your child's development and whether specific resources or referrals were recommended for your child**. Was this section useful?

- 1  Yes      2  Somewhat      3  Not Really



**8.** Were you comfortable with the amount of time it took you to complete the **Well Visit Form**?

- 1  Yes      2  Somewhat      3  Not Really

**9.** Overall, was the **Well Visit Form** helpful to you for each of the following :

	Yes	Somewhat	Not Really
a) Prioritizing topics to discuss with your child's doctor or health care provider	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
b) Identifying issues about your child's health that need to be addressed	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
c) Asking questions about how to keep your child healthy and safe	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
d) Discussing your child's learning, development, or behavior and any concerns you may have	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
e) Understanding what is recommended and what you can talk with your child's doctor or health care provider about	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
f) Recognizing your family's strengths and how you can build off of them	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>

**10.** Would you recommend the **Well Visit Form** to other parents?

- 1  Yes      2  No      3  Not Sure

### SECTION III: YOUR FEEDBACK ON EDUCATIONAL MATERIALS & ACTIVITIES

This section asks for your feedback on any educational materials or activities that you received as a part of your well-child visit.

11. Was any <b>written information</b> your child's doctor or health care provider gave you helpful for learning about the following:	Yes	Somewhat	Not Really	I didn't receive written information
a) Your child's health and safety	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	9 <input type="checkbox"/>
b) You and your family (e.g. parental depression, emotional support, substance abuse)	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	9 <input type="checkbox"/>
c) Your child's development	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	9 <input type="checkbox"/>

**12.** Did your child's doctor or health care provider give you a sheet with **activities that you can do with your child to promote your child's development?**

1

Yes → Go to Question 12a

2

No → Go to Question 13



**12a.** Did you **do the activities?**

1

**YES,**  
and I **would like to**  
do more activities  
like these

2

**YES,**  
but I **don't want to**  
do more activities  
like these

3

**NO,**  
but I **would like to**  
do activities like  
these

4

**NO,**  
and I **don't want to**  
do activities like  
these

**13.** Based on **all the written materials** that you received at your child's well child visit, which of the following best describes the quantity of paper materials that you received?

1

Not enough

2

The right amount

3

Too much

9

I didn't receive written materials

**14.** Did you go to the **██████████.org** website?

1

Yes → Go to Question 14a

2

No → Go to Section IV



**14a.** Why did you visit the **██████████.org** website? **CHECK ALL THAT APPLY**

1

To get more information  
on **topics discussed**  
with my provider

2

To get more information on  
**topics that I didn't discuss**  
with my provider

3

To print a copy of the  
**Well Visit Form** before  
my visit

**14b.** How helpful was the information provided at the **██████████.org** website?

1

Very helpful

2

Helpful

3

Somewhat helpful

4

A little helpful

5

Not at all helpful

## SECTION IV: DISCUSSIONS WITH YOUR CHILD'S DOCTORS OR OTHER HEALTH PROVIDERS

The next set of questions ask you about topics that your child's doctor or other health providers talked to you about or gave you information about at your child's well-visit.

15. <u>At your child's well-visit</u> , did your child's doctors or other health providers <b>talk with you or give you information</b> about the following:	YES, and my questions were answered	YES, but my questions were not answered completely	NO, but I wish we had talked about that	NO, but I already had information about this topic OR did not need to talk about it
a) A healthy weight for your child	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
b) Importance of your family eating meals together	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
c) Whether and how much television or videos your child watches	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
d) Importance of physical activity for your child	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
e) Importance of outside family activities that involve playing actively, such as going for a walk or playing chasing games	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
f) Any alternative or natural care therapies or products you may use with your child	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
g) Issues related to preschool	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
h) Issues related to childcare, such as a nanny, daycare or babysitters	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
i) Fun games to play with your child	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>

16. <u>At your child's well-visit</u> , did your child's doctors or other health providers <b>talk with you or give you information</b> about the following:	YES, and my questions were answered	YES, but my questions were not answered completely	NO, but I wish we had talked about that	NO, but I already had information about this topic OR did not need to talk about it
a) Your child's moods and emotions	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
b) How your child gets along with others	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
c) The importance of using simple words, asking simple questions, and repeating what you heard from your child	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
d) Ways to read to your child, such as asking him/her to talk about what they see and how they feel about the story	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
e) Ways to guide and discipline your child	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
f) Behaviors you can expect to see in your child in the next several months	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>

<b>17. At your child's well-visit, did your child's doctors or other health providers <b>talk with you or give you information</b> about the following:</b>	<b>YES, and my questions were answered</b>	<b>YES, but my questions were not answered completely</b>	<b>NO, but I wish we had talked about that</b>	<b>NO, but I already had information about this topic OR did not need to talk about it</b>
a) How to prevent your child from falling from things, such as windows and stairs	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
b) Teaching your child to avoid dangerous situations, places and objects, such as electrical sockets, the stove, or running in the street	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
c) Importance of supervising your child near all streets and driveways and not allowing your child to cross the street alone	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
d) Importance of your child wearing a helmet	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
e) Installing a car seat correctly as well as when your child can sit in a booster seat	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
f) Any other things you can do to keep your child from getting injured inside and outside the home	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>

**SECTION V: HEALTH CONCERNS ABOUT YOUR CHILD**

The next few questions ask about concerns parents or guardians sometimes have about their child.

<b>18.* Do you have any concerns about . . .</b>	<b>Yes</b>	<b>A little</b>	<b>Not at all</b>
a) Your child's <b>learning, development or behavior</b>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
b) How your child <b>talks and makes speech sounds</b>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
c) How your child <b>understands what you say</b>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
d) How your child <b>uses his or her arms and legs</b>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
e) How your child <b>behaves</b>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
f) How your child <b>gets along with others</b>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>

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**19. At your child's well-visit, did your child's doctors or other health providers ask if you have concerns about your child's learning, development or behavior?**

- 1                       2                       3   
 Yes                              No                              I don't remember

**20.** At the time of your child's well-visit with his/her doctors or other health providers, **did you have concerns** about your child's learning, development or behavior?

1

Yes → Go to Question 20a

2

No → Go to Question 21

**20a.** Did your child's doctors or other health providers **give you specific information** to address your concerns?

1

Yes

2

No

3

I did not have any concerns at the time of my child's visit

**21.** At your child's well-visit, did your child's doctors or other health providers **do any of the following** to address your child's learning, development or behavior:

	Yes	No
a) <u>Note an area</u> of your child's development that <b>should be watched</b> carefully	1 <input type="checkbox"/>	2 <input type="checkbox"/>
b) <u>Give you ideas for activities that you can do with your child to promote your child's development</u>	1 <input type="checkbox"/>	2 <input type="checkbox"/>
c) <u>Give you information about resources in your community to help you and your family</u>	1 <input type="checkbox"/>	2 <input type="checkbox"/>
d) <u>Schedule a follow-up visit</u> to check on your child's development	1 <input type="checkbox"/>	2 <input type="checkbox"/>
e) <u>Refer your child for early intervention services</u>	1 <input type="checkbox"/>	2 <input type="checkbox"/>
f) <u>Refer your child to another doctor or other health provider</u>	1 <input type="checkbox"/>	2 <input type="checkbox"/>
g) <u>Refer your child for testing</u> of his/her learning, development or behavior	1 <input type="checkbox"/>	2 <input type="checkbox"/>
h) <u>Refer your child for speech-language or hearing testing</u>	1 <input type="checkbox"/>	2 <input type="checkbox"/>

## SECTION VI: QUESTIONS ABOUT YOUR FAMILY

A child's doctors or other health providers sometimes ask questions about a child's family. These questions help them provide the best care possible for your child. These questions can be asked **in a survey that you fill out before the visit**, in the **waiting room** or when you **talked with your child's doctor or other health provider** during your child's visit.

**22.** At your child's well-visit, did your child's doctors or other health providers **ask** you:

	YES	NO, but I wish we had talked about this	NO, but I did not need or want to talk about this
a) About <b>changes or stressors</b> for you and your family	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
b) How you balance <b>taking care of yourself</b> while being a parent	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
c) If you have any <b>firearms in your home</b> and issues related to <b>gun safety</b>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
d) About any <b>other issues in your household</b> that might affect your child	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>

## SECTION VII: EXPERIENCE OF CARE

The next questions ask about your overall experiences with the health care your child has received from his or her doctors or other health providers.

	Never	Sometimes	Usually	Always
<b>23.</b> <u>How often</u> do your child's doctors or other health providers:				
a) Take time to <b>understand the specific needs</b> of your child	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
b) <b>Respect you as an expert</b> about your child	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
c) <b>Explain things</b> in a way that is <b>easy to understand</b>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>

## SECTION VIII: PARTNERING AND EXPECTATIONS

The questions in this section are not about specific things that happened at your child's well-visit, but are more **general questions** about your experiences, expectations, and hopes for your child's well-child care.

	YES, as much as I wanted	YES, but I would like more	NO, but I wish this did happen	NO, but I don't expect this to happen
<b>24.</b> Has your child's doctors or other health providers <b>done the following as much as you wanted</b>				
a) <u>Started the visit</u> by <b>asking about the specific questions or concerns I wanted to address</b> that day	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
b) <u>Provided easy ways</u> to <b>follow-up after the visit if I had questions</b> or needed more information ( <i>such as an email, website, or phone number</i> )	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
c) <u>Noted</u> specific areas where <b>my child is doing well</b>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
d) <u>Took the time</u> to recognize at least <b>one specific thing that I am doing well on</b> as a parent	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>

	YES, I do this	YES, but I would like to find ways to do this better	NO, but I wish I did do this	NO, and I am okay with not doing this
<b>25.</b> Please read the actions below and <b>indicate how much you do, or would like to do</b> , each of the following:				
a) <u>I routinely</u> ( <i>example: weekly</i> ) <b>plan specific activities to promote</b> different aspects of my child's development	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
b) <u>Before or during</u> my child's well visit, I <b>write down my questions and concerns</b> to be sure they are addressed	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>

**26.** On a scale of 0-10, with 10 being the highest, to what extent were **your questions, concerns or what you wanted to talk about covered** as much as you needed or wanted during your child's well-child visits?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0	1	2	3	4	5	6	7	8	9	10



**SECTION IX: YOUR CHILD'S HEALTH CARE**

**27.** In the last 12 months, did your child get care from more than one kind of health care provider or use more than one kind of health service?

<sup>1</sup>

Yes → Go to Question 27a

<sup>2</sup>

No → Go to Section X

**27a.** In the last 12 months, did anyone from your child's doctor's office or clinic help coordinate your child's care among these different providers or services?

<sup>1</sup>

Yes

<sup>2</sup>

No

<sup>3</sup>

My child did not get care from different providers or use more than one service

**SECTION X: YOUR CHILD, YOU, AND YOUR FAMILY**

These last questions are about your child, you, and your family. We are asking these questions to better understand the children and families we care for so that we can improve our services. Remember this survey is **confidential** and results will be kept completely anonymous.

**28.** Is the child you are answering this survey about your first child?

<sup>1</sup>

Yes

<sup>2</sup>

No

<sup>3</sup>

The question does not apply to me

**29.** Is your child of **Hispanic or Latino** origin or descent?

<sup>1</sup>

Hispanic or Latino

<sup>2</sup>

NOT Hispanic or Latino

**30.** What is your child's **race**? *Mark all that apply.*

<sup>1</sup>

White

<sup>2</sup>

Black or African American

<sup>3</sup>

Asian

<sup>4</sup>

American Indian or Alaskan Native

<sup>5</sup>

Native Hawaiian or Other Pacific Islander

<sup>6</sup>

Other

**31.** At this time, what kind of **health insurance** coverage does your child have? *Mark all that apply.*

<sup>1</sup>

Private or Employment-based

(Blue Cross Blue Shield, Kaiser, Aetna, etc.)

<sup>2</sup>

Public or Medicaid/CHIP

(Oregon Health Plan, Care Oregon, etc)

<sup>3</sup>

Medicare

<sup>4</sup>

Military

<sup>5</sup>

Indian Health Services

<sup>6</sup>

Other

<sup>7</sup>

None

**32.** At your child's well visit, was another child from your family seen for a well-child visit?

<sup>1</sup>

No

<sup>2</sup>

Yes, and I also completed a *Well Visit Form* for that Child

<sup>3</sup>

Yes, but I did not complete a *Well Visit Form* for that Child

**33.** How many days in a typical week do you or other family members read a book with your child?

<sup>1</sup>

No Days (0 days)

<sup>2</sup>

1-2 days

<sup>3</sup>

3-4 days

<sup>4</sup>

5-6 days

<sup>5</sup>

Everyday (7 days)

**34.** How many hours in a typical day does your child **watch TV or watch videos**?

1   
0 hours

2   
Less than 1 hour

3   
1 –2 hours

4   
More than 2  
hours

5   
We don't own a TV

**35.** Do you keep the **poison control center phone number** on or near your phone?

1   
Yes

2   
No

**36.** How many children 17 years old or under are living or staying in your household?

1   
1 child

2   
2 children

3   
3 children

4   
4 children

5   
5 or more  
children

**37.** In general, how well do you feel you are **coping with the day to day demands of parenthood**?

1   
Very well

2   
Somewhat  
Well

3   
Not Very Well

4   
Not well at all

**38.** How many days in the last week have you **felt depressed**?

1   
0 days

2   
1 day

3   
2 days

4   
3 days

5   
4 days

6   
5 days

7   
6 days

8   
All 7 days

**39.** In the last 12 months, have you had two weeks or more during which you **felt sad, blue, depressed or lost pleasure** in things you usually cared about or enjoyed?

1   
Yes

2   
No

# YOU'RE DONE!!

Thank you for completing the survey.

You have helped make a difference.

## FINDINGS FROM THE PROMOTING HEALTHY DEVELOPMENT SURVEY (PHDS)

This report summarizes the findings from the N=517 completed PHDS surveys obtained from parents whose children receive well-child care in [REDACTED]. As a reminder, the survey was well-visit-specific and given to parents whose children had a 4 month-3 year old well-child visit.

### This report details key findings related to recommended well-child care:

Profile of [REDACTED] Patients .....	1
Executive Summary.....	2
Anticipatory Guidance and Parental Education .....	3
Developmental Surveillance.....	5
Follow-Up for At-Risk Children.....	6
Assessment of the Family.....	7
Family-Centered Care.....	8

A list of quality improvement resources for each of these areas needing improvement is on Page 9 . The Appendix on Page 10 provides detailed information about the scoring used for each measures and descriptive information about the BENCHMARK DATA shown in the charts.

If you have questions about the findings presented in this report please contact the CAHMI at [cahmi@ohsu.edu](mailto:cahmi@ohsu.edu) or 503-494-1930.

*IMPORTANT NOTE ABOUT CONFIDENTIALITY: These reports are confidential and will only be given to the providers in [REDACTED]. If you have any questions or would like additional analyses performed, please contact Colleen Reuland of the CAHMI at [reulandc@ohsu.edu](mailto:reulandc@ohsu.edu) or 503-494-0456.*



## A PROFILE OF YOUR PATIENTS

Response Rates: The overall response rate to the survey was 54.2%. The following is descriptive information about the N=517 children whose parents responded to the survey.

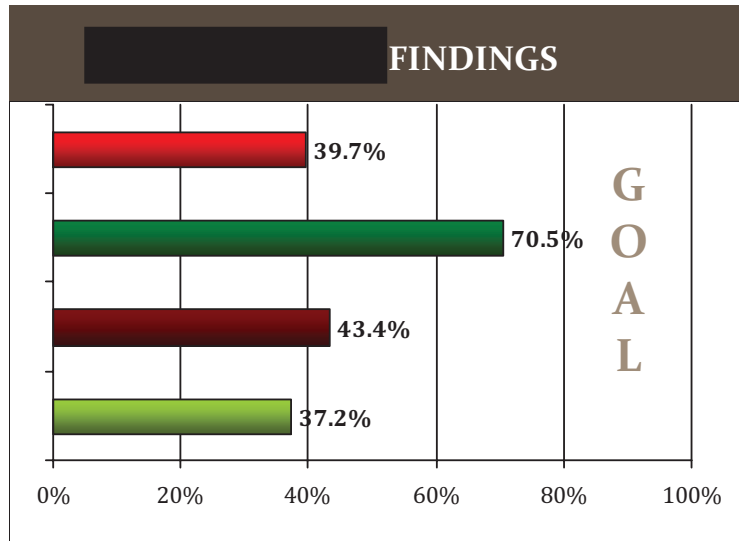
Characteristic	Categories	Proportion (%) (N=517)
<b>Well-Child Visit Assessed: Child's Age</b>	4-, 6-, and 9-Month Visits	44.5
	12-, 15- and 18-Month Visits	28.0
	24- and 36-Month Visits	27.5
<b>Birth Order of the Child</b>	Is NOT parent's first child	45.0
	Is parent's first child	55.0
<b>Number of Children Under 17 in the Home</b>	1 Child	46.5
	2 Children	43.4
	3 or More Children	10.1
<b>Race/Ethnicity of the Child</b>	White, non-Hispanic	81.3
	Hispanic	6.3
	Other or Multiple	8.8
	Asian	2.1
	Non-white, non-Hispanic	1.6
<b>Type of Insurance Coverage</b>	Private insurance only	94.8
	Public insurance only	4.3
	Public and private insurance	0.2
	Other or multiple insurance types	0.4
	No insurance	0.4

## SUMMARY OF MAIN FINDINGS

The chart below highlights the proportion of children who received the specific, recommended aspect of well-child care. Detailed information about each of the measures, or indicators of quality, can be found on the pages listed and in the Appendix. Information provided includes what was asked in the survey, how the measure was scored across the multiple individual survey items in that scale, item-level findings, and descriptive information about the related behaviors reported from parents in [REDACTED]

### ASPECTS OF RECOMMENDED WELL-CHILD CARE

- Anticipatory Guidance and Parental Education**  
Report on Page: 3
- Developmental Surveillance**  
Report on Page: 5
- Follow-Up for At-Risk Children**  
Report on Page: 6
- Assessment of the Family**  
Report on Page: 7



**NO Children**  
got the recommended  
aspect of care

**ALL Children**  
got the recommended  
aspect of care

### ASPECTS OF RECOMMENDED WELL-CHILD CARE

#### Anticipatory Guidance & Parental Education

- About 6 in 10 (60.3%) children had parents with an unmet informational need on one or more of the topics asked about.
- Parents were most likely to have their needs met on topics related to injury prevention.
- Conversely, parents were LEAST likely to have their needs met on topics related to development and behavior (46.3% with an unmet need on these topics).

#### Developmental Surveillance & Screening

- Two in five parents noted a concern about a child's learning, development or behavior. Of these concerned parents, 71.6% were asked whether they had concerns.
- About 1 in 5 children (19.2%) were identified to be at risk for developmental or behavioral delays. About 2 in 5 received some type of follow-up care to further assess and address these risks.

#### Assessment of the Family for Risk Factors that Impact the Child

- Most children had parents who were not asked about any of the risk factors asked about (62.8%). The figure in the chart above shows the proportion of children asked about at least one.
- 16.3% of parents were identified with symptoms of depression. These parents were much less likely to read to their child and more likely to report that their child watched TV above the recommended amount.

# ANTICIPATORY GUIDANCE AND PARENTAL EDUCATION

## GOAL: Children's Parents' Informational Needs Met On All Recommended Topics Asked About

This age-specific section of the survey asks parents about whether recommended anticipatory guidance and parental education topics are discussed or information is provided by their child's health care providers, and if not, whether the parent would like to talk about or receive information about the topic.

The response options and scoring for the topics in this section are the following:

### Informational Needs Met

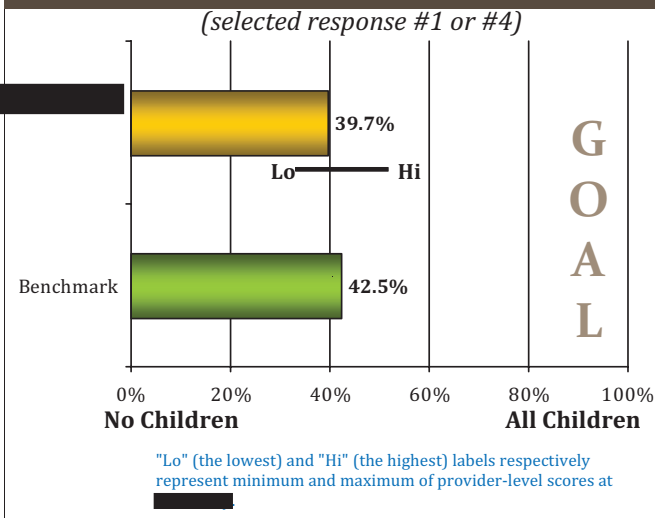
1. Yes, and my questions were answered
4. No, but I already had information about that topic or did not need to talk about it

### Unmet Informational Needs

2. Yes, but my questions were not answered completely
3. No, but I wish we had talked about that

## OVERALL RESULTS FOR [REDACTED]

### Proportion of Children Whose Parents Had Their Informational Needs Met on ALL Priority Topics Asked About



### Unmet Informational Needs

*(selected response #2 or #3)*

- **60.3%** of children have parents who reported 1 or more unmet need. The following proportions summarize the number of topics parents wanted more information about:
  - **1 or 2 topics - 22.3%**
  - **3 topics - 8.1%**
  - **4 or more topics - 29.8%**

### Variation in Unmet Informational Need by Topical Focus

	Physical Care	Development and Behavior	Injury Prevention
Proportion of children with 1 or more unmet need	41.6%	46.3%	27.8%

## PARENTS' BEHAVIORS

The following items are parent behaviors related to topics in the anticipatory guidance and parental education section of the survey. The proportions below reflect the parent responses for these items.

- Does NOT keep the poison control center number by the phone - **62.7%**
- Days read to child in a typical week: 0-2 days - **11.6%**      3-4 days - **9.5%**      5-7 days - **78.9%**

In a typical day, number of hours child watches TV or videos by age:

	None*	Less than 1 hour	1-2 hours	More than 2 hours
Younger than 2 years old	52.0%	32.1%	12.9%	3.0%
Two years and older	15.7%	37.9%	37.9%	8.6%

*\*Includes parents who do not own a TV.*

## TOPIC-SPECIFIC FINDINGS FOR

4-, 6-, and 9-Month Visits (N=230)	12-, 15-, and 18-Month Visits (N=145)	24- and 36-Month Visits (N=142)
<b>TOP 3 UNMET NEED TOPICS</b>		
Proportion of Children		
Limiting the use of the word "NO" for the most important times	40%	28%
How to avoid spreading cavities from the parent or caregiver	36%	26%
Games that help your child learn about cause-and-effect	33%	21%

Figures shown reflect respectively, the percentage of parents responding: **YES** (Response #1) **NO/OK** (Response #2) **NO/WISH** (Response #3) **NO**, but I already had information about that topic OR did not need to discuss (Response #4)

4-, 6-, and 9-Month Visits*	YES	NO/OK	NO/WISH	24- and 36-Month Visits*	YES	NO/OK	NO/WISH
<b>PHYSICAL CARE</b>							
Breastfeeding or Bottle Feeding (4,6)	39%	58%	3%	Outside family activities that involve playing actively	31%	62%	7%
Not putting the bottle in the crib or bed (4,6)	9%	85%	6%	Use of alternative or natural care therapies or products	14%	65%	21%
How to avoid spreading cavities from the parent or caregiver (4)	3%	61%	36%	Importance of your family eating meals together	23%	70%	8%
Issues related to childcare	17%	77%	6%	Importance of physical activity for your child	30%	56%	14%
Teaching your child to use a small cup (6)	25%	48%	28%	Issues related to preschool	39%	51%	10%
How much and what kinds of food your child eats (9)	86%	6%	9%	Whether and how much television or videos your child watches	12%	75%	13%
Fluoride for your child's teeth (6)	80%	12%	8%	A healthy weight for your child	72%	22%	6%
Issues related to feeding your child	78%	12%	10%				
Importance of mealtime routines (9)	33%	49%	19%				
Changes to your child's bed and bedtime habits	61%	25%	14%				
Your child's sleep positions and where your child sleeps (4,6)	34%	56%	11%				
Bushy hair on your child's teeth or gums (6)	20%	52%	28%				
Importance of your child spending active time on his/her tummy (4)	42%	44%	14%				
Whether and how much television or videos your child watches (4,9)	6%	80%	13%				
Vitamins your child may or should take (4,6)	45%	40%	15%				

4-, 6-, and 9-Month Visits*	YES	NO/OK	NO/WISH	24- and 36-Month Visits*	YES	NO/OK	NO/WISH
<b>BEHAVIOR</b>							
Behaviors you can expect to see in your child in the next several months	60%	17%	23%	Words and phrases your child uses and understands (24)	84%	13%	3%
Tips to help calm and relax your baby (4,6)	19%	67%	14%	Using simple words and repeating what you heard from your child	38%	55%	8%
How your child communicates his/her needs (4,6)	40%	48%	12%	Behaviors you can expect to see in your child in the next several months	44%	28%	28%
Ways to guide and discipline your child (9)	16%	52%	32%	Ways to guide and discipline your child	32%	47%	21%
Your child becoming more independent (9)	33%	52%	14%	How your child gets along with others	50%	41%	9%
Games that help your child learn about cause-and-effect (9)	16%	51%	33%	Your child's moods and emotions	61%	27%	12%
Your child's moods and emotions	44%	41%	16%	Ways to read to your child	17%	69%	14%
Limiting the use of the word "NO" for the most important times (9)	7%	53%	40%	Things your child may start to do for himself/herself (24)	38%	36%	26%
Night waking and fussing (4,6)	49%	41%	10%	Toilet training (24)	59%	20%	21%
Showing a picture book to or reading with your child (6)	8%	80%	12%				
How your child responds to new people or caregivers (6)	31%	58%	11%				
Importance of consistent daily routines (6)	23%	58%	19%				
Separation anxiety (9)	25%	54%	22%				
How your child understands what you say (6)	32%	37%	31%				

4-, 6-, and 9-Month Visits*	YES	NO/OK	NO/WISH	24- and 36-Month Visits*	YES	NO/OK	NO/WISH
<b>PREVENTION AND INJURY</b>							
Behaviors you can expect to see in your child in the next several months	60%	17%	23%	Installing a car seat correctly and booster seat use	10%	85%	5%
Tips to help calm and relax your baby (4,6)	19%	67%	14%	Teaching your child to avoid dangerous situations, places and objects	13%	80%	7%
How your child communicates his/her needs (4,6)	40%	48%	12%	How to prevent your child from falling from things (36)	8%	82%	11%
Ways to guide and discipline your child (9)	16%	52%	32%	Bath tub, water and pool safety (24)	7%	84%	9%
Your child becoming more independent (9)	33%	52%	14%	Wearing a helmet	8%	88%	4%
Games that help your child learn about cause-and-effect (9)	16%	51%	33%	Never leaving your child unsupervised in or around vehicles	7%	91%	2%
Your child's moods and emotions	44%	41%	16%	Supervising your child near all streets and driveways, child is not ready to cross street alone (36)	5%	94%	2%
Limiting the use of the word "NO" for the most important times (9)	7%	53%	40%	Other things you can do to keep your child from getting injured	13%	81%	6%
Night waking and fussing (4,6)	49%	41%	10%				
Showing a picture book to or reading with your child (6)	8%	80%	12%				
How your child responds to new people or caregivers (6)	31%	58%	11%				
Importance of consistent daily routines (6)	23%	58%	19%				
Separation anxiety (9)	25%	54%	22%				
How your child understands what you say (6)	32%	37%	31%				

\*Numbers in parentheses next to some topics indicate that the question was asked only for the well-visits listed. Copyright © 2005 CAHMI - Child and Adolescent Health Measurement Initiative

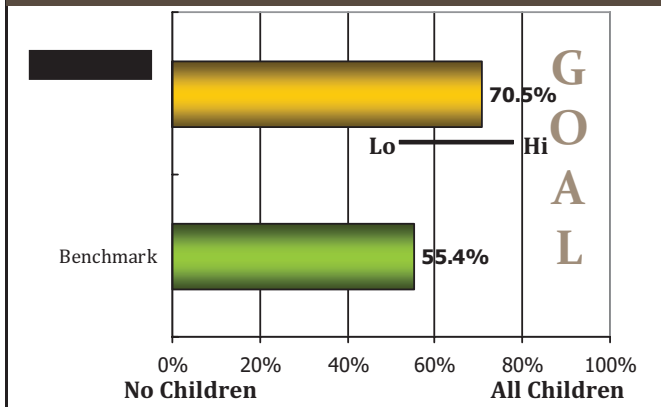
## DEVELOPMENTAL SURVEILLANCE: ASKING ABOUT PARENTAL CONCERNS

### GOAL: All Children's Parents Are Asked About Their Concerns

A key part of recommended developmental surveillance is health care providers specifically asking parents if they have concerns. One item in the survey asked whether or not their child's health care providers asked the parent if he/she had concerns about the child's learning, development or behavior. The survey also includes six items derived from the Parent's Evaluation of Developmental Status (PEDS)©\*. These items asked parents about specific concerns they may have about their child's learning, development or behavior that can predict a child's risk level for developmental or behavioral delays.

### OVERALL RESULTS FOR

#### Proportion of Children Whose Parents Were Asked About Their Concerns



"Lo" (the lowest) and "Hi" (the highest) labels respectively represent minimum and maximum of provider-level scores at [redacted]

#### Children Whose Parents Were Asked About Their Concerns

- 41.7% have parents with one or more concerns about their child's learning, development or behavior.

#### Of this group:

- 71.6% were asked whether or not they had any concerns about their child.

### CONCERNS OF PARENTS AT

The following proportion of children have parents who reported a concern about:

- The child's **learning, development or behavior** - 25.0%
- How the child **uses** his or her **arms and legs** - 11.7%
- How the child **talks** and makes **speech sounds** - 18.1%
- How the child **behaves** - 22.7%
- How the child **understands** what parents may say - 11.7%
- How the child **gets along with others** - 14.8%

\*Glascoe FP. Parents' Evaluation of Developmental Status. Nashville, TN: Ellsworth & Vandermeer Press, Ltd; 1998



## FOLLOW-UP FOR "AT-RISK" CHILDREN

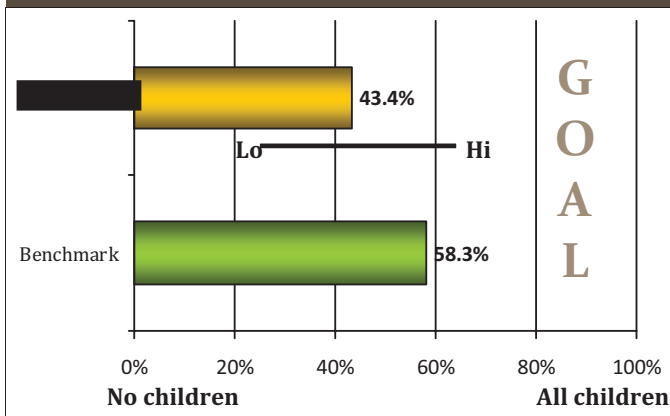
### GOAL: All "At-Risk" Children Receive Some Level of Follow-Up

The survey included items adapted from the PEDS©\* to identify children "at-risk" for developmental/behavioral delays. The PEDS© uses an age- and concern-specific scoring algorithm to identify this group of children. Six questions were then asked to assess whether or not "at-risk" children received some form of follow-up. Parents were asked if their child's health care providers did any of the following:

1. Noted a concern about the child that should be watched
2. Scheduled a follow-up visit to check on the development
3. Referred the child for early intervention services
4. Referred the child for speech-language or hearing testing
5. Referred the child for testing of their learning, development or behavior
6. Referred the child to another doctor or health care provider

### OVERALL RESULTS FOR [REDACTED]

#### Proportion of "At-Risk" Children Receiving Any Follow-Up



"Lo" and "Hi" labels respectively represent minimum and maximum of provider-level scores at [REDACTED]

#### "At-Risk" Children

- 19.2% of children have parents with concerns that indicate their child is "at-risk" for developmental, behavior or social delays.

#### "At-Risk" Children Receiving Follow-Up

- 43.4% of "at-risk" children received at least one of the six types of follow-up asked about.

### FOLLOW-UP STEPS TAKEN FOR "AT-RISK" CHILDREN

Listed below are the proportion of children identified as "at-risk" by the PEDS© items whose parents reported that their child's doctor or other health care providers did each of the following:

- Noted a concern about child that should be watched - 24.5%
  - Scheduled a follow-up visit to check on development - 20.4%
- Referred for:**
- Early intervention - 10.3%
  - Testing of learning, development or behavior - 8.2%
  - Speech-language or hearing testing - 9.3%
  - Another doctor or health care provider - 13.4%

\*Glascoe FP. Parents' Evaluation of Developmental Status. Nashville, TN: Ellsworth & Vandemeer Press, Ltd; 1998

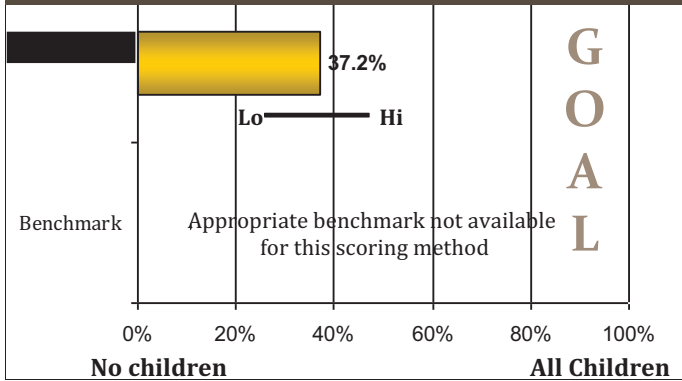
## ASSESSMENT OF THE FAMILY

### GOAL: Children's Parents Are Screened for One or More Risk Factors

This section of the survey included 10 well-visit-specific topics about family stressors, parental depression and safety in the home environment. Parents were asked if their child's health care providers asked about the topics at the well-visit at which they received the survey. See the table below for the topics asked about for each well-visit.

### OVERALL RESULTS FOR

#### Proportion of Children's Parents Who Were Asked About at Least One or More Topics



"Lo" (the lowest) and "Hi" (the highest) labels respectively represent minimum and maximum of provider-level scores at [redacted]

#### No Topics Asked About

- 62.8% of children have parents who reported that their child's doctors or other health care providers did not ask about ANY topics.

### TOPICS ASSESSED AND FINDINGS FOR EACH WELL-VISIT

Well-Visit-Specific Family Assessment Items	Well-Visit Assessed (in Months)								
	4 (n=95)	6 (n=65)	9 (n=70)	12 (n=72)	15 (n=11)	18 (n=62)	24 (n=76)	36 (n=66)	TOTAL*
If a parent ever feels depressed, sad or has crying spells		6%							6%
If the parent has someone to turn to for emotional support	8%					6%			8%
Changes or stressors in the home	21%	25%					22%	12%	20%
Balance in taking care of themselves as a parent		29%	19%	20%	18%			11%	19%
If parent's partner has hit, kicked, shoved or physically hurt them or their child			1%						1%
Firearms in the home			4%	3%		3%	13%	3%	6%
If parent makes time for other relationships				14%	9%				13%
If parent sets a positive example by always using a seatbelt					0%	2%	8%		5%
If anyone in the household drinks alcohol or uses other drugs						5%			5%

\* - N is the total number of parents who were asked the item across the visit-specific versions of the survey.

### PSYCHOSOCIAL WELL-BEING

- 16.3% (n=84) of children's parents reported symptoms of depression in the last 12 months.

## FAMILY-CENTERED CARE

### COMMUNICATION & EXPERIENCE OF CARE

Three items asked parents about communication and experience with well-child care. Below are the item-level findings and the proportion of children whose parents answered with the corresponding response.

How often does your child's health care provider...	Always	Usually	Never/Sometimes (UNMET NEED)
• Take time to understand specific needs your child	67.6%	27.2%	5.2%
• Respect you as an expert on your child	73.7%	22.2%	4.1%
• Explain things in a way that was easy to understand	86.4%	13.2%	0.4%

### FOLLOW-UP QUESTIONS AFTER THE VISIT

One item asked parents whether they were told about what to do if they had a question after the visit.

	YES, as much as I wanted	NO, but I don't expect this to happen	NO, but I wish this did happen OR YES, but I would like more (UNMET NEED)
• Provided easy ways to follow-up after the visit if I had a question	52.9%	18.7%	28.4%

### STRENGTH-BASED APPROACHES TO CARE

Recognizing a child and family's needs and strengths can be an effective method for patient empowerment and can be a building block for strength-based counseling. Three items in the PHDS ask parents about whether the provider asked about parents' concerns or noted strengths and whether the parents wished it occurred.

	YES, as much as I wanted	NO, but I don't expect this to happen	NO, but I wish this did happen OR YES, but I would like more (UNMET NEED)
• Started the visit asking about specific questions or concerns I wanted to address that day	74.2%	10.1%	15.7%
• Noted specific areas where my child is doing well	79.0%	4.3%	16.7%
• Took time to recognize at least one thing I am doing well on as a parent	64.8%	19.8%	15.4%

### PARENTAL ENGAGEMENT

Two items in the PHDS asked about activities parents currently do and whether they would like to do them more.

	YES, I do this	NO, and I am okay with not doing this	NO, but I wish I did do this OR YES, but I would like to find ways to do this better (UNMET NEED)
• Routinely plans specific activities to promote child's development	53.8%	4.9%	41.3%
• Before or during the visit writes down questions or concerns	46.8%	21.5%	31.7%

## IMPROVEMENT RESOURCES

Listed below are selected quality improvement (QI) resources which address the topics asked about in the PHDS.

### Meeting Parents' Informational Needs: QI Resources on Anticipatory Guidance and Parental Education

- **Pral Guide to Healthy Development: Module #5 (Anticipatory Guidance & Parental Education):**  
[www.commonwealthfund.org/Content/Resources/2006/Mar/Module-5--Anticipatory-Guidance-and-Parental-Education.aspx](http://www.commonwealthfund.org/Content/Resources/2006/Mar/Module-5--Anticipatory-Guidance-and-Parental-Education.aspx)
- **Model for Anticipatory Guidance and Parental Education about the Importance of Reading – The Reach Out and Read Program:** [www.reachoutandread.org](http://www.reachoutandread.org)
- **Well-Child Care Toolkit:**  
[http://www.brightfutures.org/wellchildcare/06\\_education/index.html](http://www.brightfutures.org/wellchildcare/06_education/index.html)

#### Websites with Parent Education Materials and Resources for Providers

- **Bright Futures:** [www.brightfutures.aap.org](http://www.brightfutures.aap.org)
- **Zero to Three:** [www.zerotothree.org](http://www.zerotothree.org)
- **Kids Growth:** [www.kidsgrowth.com](http://www.kidsgrowth.com)
- **Dr. Spock:** [www.drspock.com](http://www.drspock.com)
- **KeepKidsHealthy.com:** [www.keepkidshealthy.com](http://www.keepkidshealthy.com)
- **KidsHealth:** <http://kidshealth.org>
- **Pediatric Development and Behavior:** [www.dbpeds.org](http://www.dbpeds.org)
- **Healthy Steps:** [www.healthysteps.org](http://www.healthysteps.org)
- **Connected Kids Resource Kit:** [www.aap.org/ConnectedKids/IntroPiece.p](http://www.aap.org/ConnectedKids/IntroPiece.p)
- **AAP Parent Website:** [www.healthychildren.org](http://www.healthychildren.org)

### Asking About and Addressing Parental Concerns: QI Resources on Developmental Surveillance and Screening

- **AAP Algorithm for Developmental Surveillance and Screening:**  
<http://pediatrics.aappublications.org/cgi/content/full/118/1/405>
- **Developmental Surveillance and Screening Policy Implementation Project:** [www.medicalhomeinfo.org/screening/DPIP.html](http://www.medicalhomeinfo.org/screening/DPIP.html)
- **DBPEDS.ORG Tools and Resources:**  
[www.dbpeds.org/articles/detail.cfm?TextID=539](http://www.dbpeds.org/articles/detail.cfm?TextID=539)
- **Assuring Better Child Health and Development (ABCD) Resource Center:** <http://abcdresources.org>
- **Practical Guide to Healthy Development: Module #2 (Developmental Surveillance and Screening):**  
[www.commonwealthfund.org/Content/Resources/2006/Jan/Module-2--Developmental-Screening-and-Surveillance.aspx](http://www.commonwealthfund.org/Content/Resources/2006/Jan/Module-2--Developmental-Screening-and-Surveillance.aspx)
- **Utah Medical Home Project: Tools and Resources for Developmental Screening:**  
[www.medicalhomeportal.org/clinical-practice/screening-and-prevention](http://www.medicalhomeportal.org/clinical-practice/screening-and-prevention)

### Assessing the Parent for Risks to the Child's Healthy Development: QI Resources on Screening Families for Risk Factors

#### Depression

- **Bright Futures in Practice: Mental Health—Volume II, Tool Kit**  
[www.brightfutures.org/mentalhealth/pdf/tools.html](http://www.brightfutures.org/mentalhealth/pdf/tools.html)
- **Parental Depression Screening for Pediatric Clinicians: An Implementation Manual:**  
[www.commonwealthfund.org/Content/Publications/Fund-Manuals/2007/Apr/Parental-Depression-Screening-for-Pediatric-Clinicians--An-Implementation-Manual.aspx](http://www.commonwealthfund.org/Content/Publications/Fund-Manuals/2007/Apr/Parental-Depression-Screening-for-Pediatric-Clinicians--An-Implementation-Manual.aspx)
- **Depression Screening Toolkit:** [www.depression-primarycare.org/clinicians/toolkits/](http://www.depression-primarycare.org/clinicians/toolkits/)
- **Screening for Depression Across the Lifespan: Measures for Use in Primary Care Settings:**  
[www.aafp.org/afp/20020915/1001.html](http://www.aafp.org/afp/20020915/1001.html)
- **Screening for Maternal Perinatal Depression:**  
[www.dbpeds.org/articles/detail.cfm?TextID=356](http://www.dbpeds.org/articles/detail.cfm?TextID=356)
- **Gun Safety**
- **Connected Kids Resource Kit:**  
[www.aap.org/ConnectedKids/ClinicalGuide.pdf](http://www.aap.org/ConnectedKids/ClinicalGuide.pdf) (page 29)

#### Domestic Violence

- **Preventing Domestic Violence: Clinical Guidelines on Routine Screening:**  
[www.amaassn.org/ama/upload/mm/386/guidelines.pdf](http://www.amaassn.org/ama/upload/mm/386/guidelines.pdf)
- **National Consensus Guidelines on Identifying and Responding to Domestic Violence Victimization in Health Care Settings:**  
[www.endabuse.org/userfiles/file/HealthCare/consensus.pdf](http://www.endabuse.org/userfiles/file/HealthCare/consensus.pdf)
- **Screening for Domestic Violence in the Community Pediatric Setting:**  
<http://pediatrics.aappublications.org/cgi/content/full/104/4/874>
- **Improving the Management of Family Psychosocial Problems at Low-Income Children's Well-Child Care Visits:**  
[www.commonwealthfund.org/Content/Publications/In-the-Literature/2007/Sep/Improving-the-Management-of-Family-Psychosocial-Problems-at-Low-Income-Childrens-Well-Child-Care-Vis.aspx](http://www.commonwealthfund.org/Content/Publications/In-the-Literature/2007/Sep/Improving-the-Management-of-Family-Psychosocial-Problems-at-Low-Income-Childrens-Well-Child-Care-Vis.aspx)

## APPENDIX

### **General Information About This Feedback Report**

**AUTHORS:** Staff from the Child and Adolescent Health Measurement Initiative (CAHMI).

**IMPORTANT NOTE ABOUT THE FINDINGS:** These survey results present a “best case” scenario due to an inherent positivity bias caused by two factors: 1) The survey was conducted only in English, and 2) Only parents whose children had a well child visit were asked to complete the survey and they did so after the well-child visit.

**BENCHMARK DATA PRESENTED IN THE CHARTS:** The bar labeled “Benchmark” is based on data gathered by the CAHMI from 1999-2007 from the mail-in or in-office PHDS. The data represent nearly 10,000 children and are based on applications of the PHDS through Medicaid in Maine and Washington; Kaiser Permanente Northwest, in Portland, Oregon; and 26 pediatric and family medicine practices in Vermont and North Carolina. Although the PHDS has been collected by phone, studies have shown biases related to the mode of administration and therefore to make the findings as comparable as possible, we only included the PHDS data collected in a similar mode of administration (surveys completed online or mailed back).

**PROVIDER-LEVEL DATA PRESENTED IN THE CHARTS:** If applicable, a bar labeled with “Lo” and “Hi” represent the low and high, respectively, range of provider scores in your office.

**ADDITIONAL INFORMATION ABOUT THE CAHMI AND THE PHDS:** The PHDS was created by the CAHMI has been proven to be a reliable and valid tool and is endorsed by the National Quality Forum. The PHDS assesses recommendations included in the Bright Futures Recommendations, 3<sup>rd</sup> Edition. To date, more than **45,000 surveys** have been collected by Medicaid agencies, health plans, pediatric practices, and nationally through the National Survey of Early Childhood Health (NSECH). Components of the PHDS are also in the National Survey of Children’s Health. Funding for the development of the PHDS tools and resources has been supported by the Commonwealth Fund. Additional information can be found at [www.cahmi.org](http://www.cahmi.org).

**QUESTIONS? CONCERNS?** If you have questions about the findings presented in this report, please contact [phds@ohsu.edu](mailto:phds@ohsu.edu) or 503-494-1930.

### **Specific Information About Each Measure of Care**

#### **ANTICIPATORY GUIDANCE AND PARENTAL EDUCATION (Page 3)**

**Background:** On average, parents are asked about 24 of the anticipatory guidance and parental education topics included in the national, **Bright Futures** recommendations for that visit. Among all of the recommended topics that could be discussed, the items selected were chosen because past studies had demonstrated parents can reliably and validly report about whether the topic was discussed, the topic is of high value and salience to the parent, and advisor input from leaders in the field of child development ranked the topic as high priority based on health impact, evidence and need for improvements. **Scoring used to calculate the measure shown in the chart:** The chart shows the proportion of children whose parents reported having their needs met on all the recommended anticipatory guidance and parental education topics asked about in the survey. For each child, each age-specific each individual item was recoded to indicate whether the parent had their informational needs about that topic (parent responded “yes, and my questions were answered” or “No, but I had already had information about that topic or did not need to talk about it” to the question asking about whether the child’s health care provider talked about or gave information about the topic.). Then, for each child, a measure was created indicated whether the parent had their needs met on all the topics asked about. Lastly, a composite measure was created, across all the children whose parents responded to the survey. **Goal:** The goal for this measure of care is to have parents’ informational needs met on all recommended topics.

#### **ITEM-SPECIFIC FINDINGS RELATED TO ANTICIPATORY GUIDANCE & PARENTAL EDUCATION (Page 4)**

**Background:** The items asked were based on the **Bright Futures** recommendations for each visit and are age-specific. **Scoring:** The number in parentheses next to each item denotes which visit the item was asked about. The individual AGPE topics are grouped into 3 topic-based categories: physical care, development and behavior and injury prevention. The responses to the individual items are listed to the right of the topic: Yes (topic was discussed and questions were answered), NO/OK (No, topic was not discussed, but I already had information on it or did not need to talk about it) and NO/WISH (No, but I wished we had talked about the topic OR Yes, but my questions were not completely answered. The top 3 topics where parents had unmet informational needs (parents answered “No, but I wished we had talked about that” or “Yes, but my questions were not answered completely”)., by age group, are listed at the top of each column.

#### **DEVELOPMENTAL SURVEILLANCE: ASKING PARENTS ABOUT THEIR CONCERNS (Page 5)**

**Background:** Research with health care providers and parents consistently finds that asking about and addressing parent concerns is one of the most important and valuable aspects of well-child care. Bright Futures recommendations call for health care providers to specifically ask parents, at every visit, whether they have concerns about their child’s learning, development or behavior. Studies by Frances Glascoe, PhD found that in order for parental concerns to be validly elicited to identify potential delays, that the question must specifically ask about concerns about learning, development, and behavior rather than a general question about whether they have any questions or concerns they would like to address that day. **Scoring used to calculate the**

**measure shown in the chart:** Parents were asked whether their child’s health care provider asked them if they had specific concerns about their child’s learning, development or behavior. The chart shows the proportion who responded that they were asked about their concerns. **Goal:** The goal for this measure of care is for all children’s parents to be asked about their concerns.

**ITEM-SPECIFIC FINDINGS DISPLAYING PARENTAL CONCERNS (Page 5)**

Six items, derived from the Parent’s Evaluation of Development Status (PEDS)<sup>®</sup> were included in the PHDS in order to identify parents who had concerns about their child. The PEDS<sup>®</sup> items included asked about parent concerns about (1) child’s learning, development or behavior, (2) how the child talks and makes speech sounds, (3) how the child understands what the parent says, (4) how the child uses his or her arms or legs, (5) how the child behaves and (6) how the child gets along with others. The response options were “Yes”, “A little” and “Not at all”. A parent had concerns if they answered “Yes” or “A Little” to at least one of the 6 items.

**FOLLOW-UP FOR AT-RISK CHILDREN (PAGE 6)**

**Background:** Parent concerns can be an indication of their child’s risk for developmental, behavioral or social delays. The survey included 6 items adapted from the PEDS<sup>®</sup> to determine if a child’s is “at risk” for developmental delays. The PEDS<sup>®</sup> uses an age- and concern-specific scoring algorithm to identify this group of children. Children were considered “At-Risk” if their parents indicated one or more concerns on items predictive of developmental delay for that age. The indicators vary by age. **The parent was also asked about potential follow-up steps that should be taken for “at risk” children such as referral, additional testing, or noting a specific concern that should be watched and potential follow-up visits that should be scheduled.** **Scoring used to calculate the measure shown in the chart:** The chart shows the proportion of “at risk” children who received some level of follow-up care. Children were identified as having received some level of follow-up care if the parent said “yes” to any of the follow-up step asked about. **Goal:** The goal for this measure of care is for all “At-Risk” children to receive some level of follow-up.

**ITEM-SPECIFIC FINDINGS RELATED TO FOLLOW-UP STEPS TAKEN (Page 6)**

Additional items were asked about follow-up steps that may have been taken for children who were identified as “At-Risk”. For the follow-up items, the percentages shown are the proportion of “At-Risk” children whose parents responded “yes” to the item.

**ASSESSMENT OF THE FAMILY (Page 7)**

**Background:** Parental well-being and the home environment are major determinants of the health and well-being of young children. National guidelines recommend that pediatric clinicians routinely assess for the well-being of parents and safety within the family. Parents were asked if their child’s health care provider asked about family risk factors. The family risk-factors asked about were age-specific. Between 4 and 7 items were included in this section in the age-specific versions of the survey. See the item-level findings below for the specific risk factors asked about at each of the visit. **Scoring used to calculate the measure shown in the chart:** The chart shows the proportion of children whose parents reported being asked about at least one the topics asked about for that specific well-visit. **Goal:** The goal for this measure of care is for children’s parents to be screened for 1 or more family risk factors.

**ITEM-SPECIFIC FINDINGS RELATED TO ASSESSMENT OF THE FAMILY (Page 7)**

For the item-specific finding related to assessment of the family, the percentages shown are the proportion who responded “yes” to the item (response scale was yes, no, but I wish we talked about that or no, but I did not need or want to talk about that).

The following are items asked about with the visit(s) listed in parentheses for which the item was asked:

- If a parent ever feels depressed, sad or has crying spells (6)
- If the parent has someone to turn to for emotional support (4, 18)
- Changes or stressors in the home (4,6,24)
- Balance taking care of themselves while being a parent (6, 9, 12,15)
- If parent’s partner has hit, kicked, shoved or physically hurt them or their child (9)
- Firearms in the home (9,12,18,24)
- If parent makes time for other relationships (12,15)
- If parent sets a positive example by always using a seatbelt (15,18,24)
- If anyone in the household drinks alcohol or uses other drugs (18)

For the items about the parental psychosocial well-being (symptoms of depression), the percentages shown are the proportion who responded that they have felt depressed for one or more days in the past week (response scale was 1,2,3,4,5,6 or 7 days) AND said “yes” to felt sad, blue, lost pleasure in things they really care about for 2 or more weeks in the past year.



## The Plan My Child's Well-Visit Online Tool

The Child and Adolescent Health Measurement Initiative (CAHMI) developed the online **Plan My Child's Well-Visit (PCW)** tool to improve the quality of well-child care services. The tool asks parents standardized questions about what is recommended to be addressed in the well visit based on *Bright Futures Recommendations*. The tool is designed to help prioritize time spent with pediatric providers to focus on addressing the topics that are most important to the family.

The PCW was implemented in a pediatric practice with 12 pediatricians beginning in 2010. Evaluation results suggest that the tool is feasible to implement and that it helps to improve the provision of anticipatory guidance and family assessment.



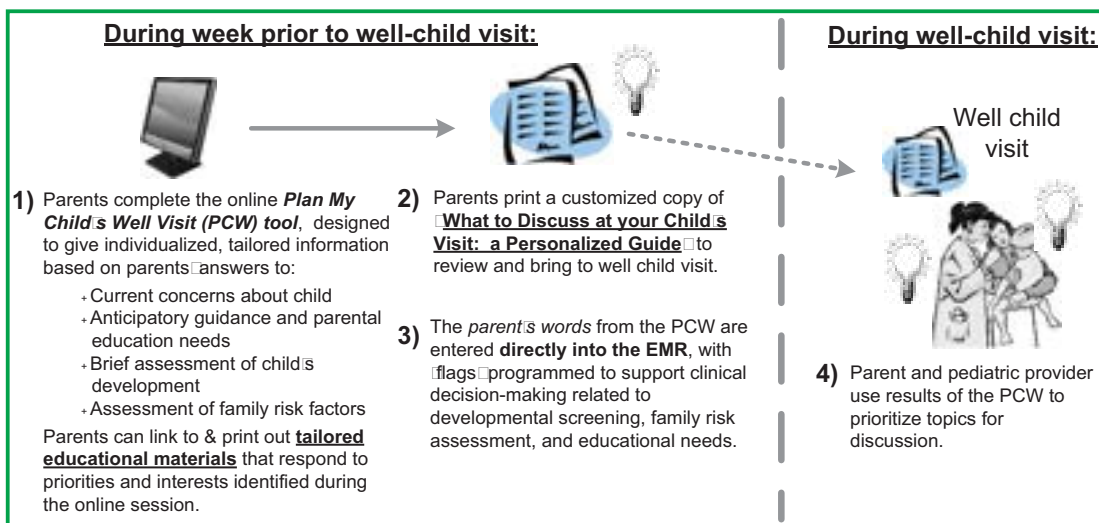
### Areas Assessed:

- Child's health (e.g. developmental surveillance)
- Parental risk factors (e.g. parental depression).
- Parent's priorities for anticipatory guidance and parental education for the child's next well-child visit

### Key Features:

- Customized guides to providers inserted **into the EMR** to support clinical decision making based on screening results and parent priorities.
- Tailored educational materials based on the parent's interests during the online session
- Customized Visit Guide for the parent based on their responses

### How it Works:



### Contact Information:

For additional information about the PCW, please contact the CAHMI at (503) 494-1930, [pcw@cahmi.org](mailto:pcw@cahmi.org), or find us at [www.cahmi.org](http://www.cahmi.org).

This study (project) is funded by grant (cooperative agreement), R40 MC08959 03-00, through the U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Research Program.

## Patient-Centered Improvement of Well-Child Care for Young Children:

### Overview of the *Plan My Child's Well Visit Tool* with EHR Integration Examples





# Online PCW Tool – Content

## Step 1

### Step 1: Child & Family Health Screeners

1A : Open-ended questions about strengths, questions or concerns, changes in the home

1B. General Child Health Screening Questions

- Included The Children’s Clinic’s Lead and TB Screeners

1C: Developmental Surveillance, and, where applicable, a PDF of the ASQ.

1D: Screeners Assessing for Issues in the Family that Impact the Child



# Online PCW Tool – Content Step 2

## Step 2: Anticipatory Guidance & Parental Education

2A. Parent picks their top three priorities

2B. Education about recommended topics:

- Can be assessed before OR after the visit.
- So it can be referenced by provider during visit.

**Plan My Child's Well-Visit**

**Step 1: Answer a Questionnaire**

**Step 2: Pick Your Priorities**

The topics listed below are based on national recommendations about the kinds of things health care providers should discuss at this visit.

Pick your priorities for what you want your child's health care provider to talk with you about by checking up to 3 boxes (your fewer than 3 is okay, too). You can also view and save useful educational materials about each topic and perhaps even have some of your questions answered by clicking to learn more. This information is also available on your dashboard and the home page of [www.kidscount.org](http://www.kidscount.org) if you want to view it later.

**How you and your family are doing**

- Changes or stresses for you and your family - Click to learn more
- Taking care of someone or someone to take care of you - Click to learn more
- Taking time for yourself, for your partner and your other children - Click to learn more
- Balancing responsibilities with your partner - Click to learn more
- Issues related to childcare, such as a nanny, daycare or babysitters - Click to learn more

**How your child is growing and developing**

- Behavior to expect in the next few months - Click to learn more
- Establishing consistent daily routines and their impact on behavior and sleep - Click to learn more
- Night waking and feeding - Click to learn more
- "Back-to-sleep" and cot safety - avoiding soft toys and bedding - Click to learn more
- Playtime for your baby, including "tummy time" and reading - Click to learn more
- Television - why the experts say no TV - Click to learn more
- How your baby communicates his needs - Click to learn more
- Your baby's moods and emotions - Click to learn more
- Tips for calming and soothing your baby - Click to learn more

**How your child is eating and growing**

- Your child's growth and weight gain - Click to learn more
- Introduction of solid foods - Click to learn more

**Did you know?**

**Did you know?**

**Did you know?**

12% of mothers don't know how to calculate a child's weight.

# Online PCW Tool – Content Embedded Educational Content

**How your child is growing**

- Behaviors to expect in
- Establishing consistent
- Click to learn more
- Night waking and fussing
- "Back-to-sleep" and crying
- more
- Playtime for your baby
- Television – why the experts say no TV
- How your baby communicates
- Your baby's moods and
- Tips for calming and

Check up to 5 boxes that never change, too! You can also view and save user educational material about each topic and perhaps even have some of your questions answered by clicking to learn more. This information is also available on your dashboard and the home page of [www.fccwellvisit.org](http://www.fccwellvisit.org) if you want to view it later.

Learn More

**Television - why the experts say no TV**

National recommendations say that children under the age of two should not watch television, DVDs, or videos – and should avoid "screen time" (computers, handheld video games, etc). There are some studies that suggest children under the age of two years old learn words less effectively from TV than from interactions with people and display more aggressive behaviors(1). Do your best to avoid letting your toddler watch TV or videos. Instead, play with your child through games, storytelling, reading aloud, pointing and naming, listening to music, laughing and being active as a family. If others are watching, try to move to another room or distract him with toys or games. You can also restrict TV time for others to when your toddler is napping or in bed for the evening.

You can talk to your child's health care provider about why the experts say no TV watching for your child.

*Based on the AAP's Bright Futures Recommendations.*

<b>What is this and why is it important?</b>	<ul style="list-style-type: none"> <li>• Is public television okay? What about videos that are made for toddlers to enhance their learning and development?</li> <li>• It's very hard to keep my child from watching TV when others are watching, what are some tips to avoid this?</li> <li>• My toddler really seems to pay attention and become engaged with some of programs, isn't this good for him?</li> </ul>
<b>What are common questions I can ask my health care provider?</b>	
<b>Where can I find more information about this topic?</b>	

Print | Save to my Computer | Close

Final Report for MCHB, HRSA R40 MC08959 03-00 | Appendices - Page C5

# Online PCW Tool – Transmitting Data to the Provider

## Plan My Child's Well-Visit

**Confirm Your Priorities**



**Step 2:  
Pick Your Priorities**

Please confirm that these are the priorities you would like to discuss with your child's health care provider at his upcoming well-visit.

**You picked...**

- ✓ Playtime for your baby, including "tummy time" and reading
- ✓ Television – why the experts say no TV
- ✓ How your baby communicates his needs

By clicking the **I'm Done!** button, your answers will be sent to your child's health care provider and your personalized Visit Guide will be generated.

If at any time you would like to view a **Full Summary of your answers**, log in to your account to visit your **dashboard** and look for the link under your child's name.

[Go Back: Change Responses](#)

[I'm Done!](#)  
Send this info to my Pediatrician and get my Visit Guide

[Save & Resume Later](#)

About This Web Site | Privacy Statement | FAQ | Contact Us

# Online PCW Tool – The Parent Visit Guide (Parent Prints & Brings to the Visit)

Print | Save to my Computer | Return to Dashboard | Log Out



**Visit Guide:**  
What to discuss at  
Tulip's  
4 Month Well-Visit

Below is your Visit Guide for Tulip's 4 Month Well-Visit. Print this guide and bring it to the visit so you can use it to help remember what topics to bring up with your child's health care provider (who will also get a summary). **Quick Tip:** So you don't forget it, print this out now and put it in your purse or diaper bag.

Be a Partner-Discuss Your Priorities with Your Child's Health Care Provider

**Things to share with your child's health care provider:**

- Something your child is able to do that you're excited about. **Roll over!**
- Specific concerns: **My baby is very colicky**
- changes or stressful events for you or your family lately: **Death in the Family, My grandmother passed away**
- You noted you had a poor appetite: **I'm concerned that my child isn't eating enough**

**Topics you want more information on:**

- "Back-to-sleep" and cribs
- Television – why the experts say no TV
- Introduction of solid foods
- Other: **I am concerned about my child's development**

**Television – why the experts say no TV**

Example Questions:

- Is public television okay? What about videos that are made for toddlers to enhance their learning and development?
- It's very hard to keep my child from watching TV when others are watching, what are some tips to avoid this?
- My toddler really seems to pay attention and become engaged with some of programs, isn't this good for him?

**Notes for Your Child's Next Well-Visit**

Use this space to write down any other questions or notes



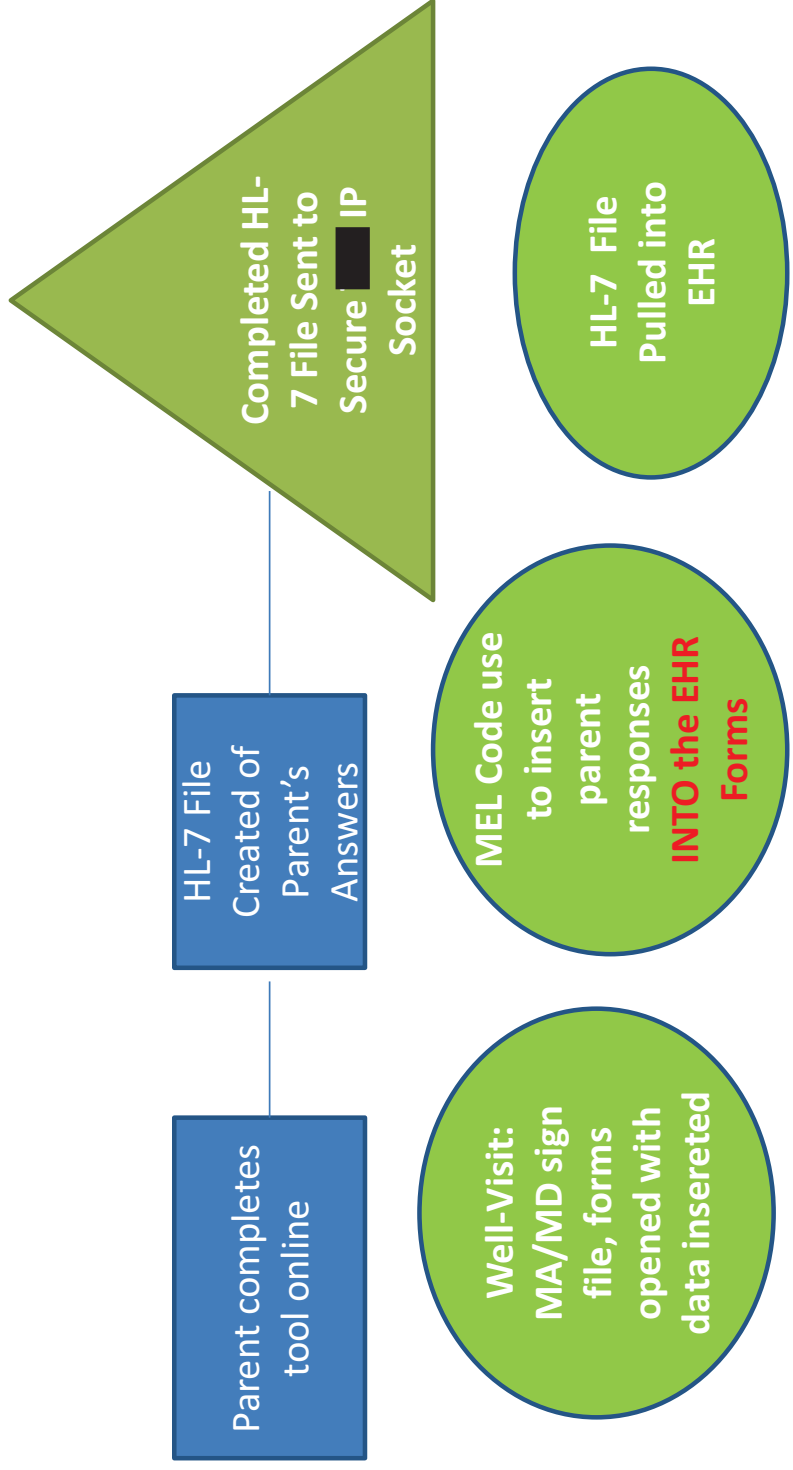
# Online PCW Tool – Getting the Parent’s Responses Into the EHR

## EHR Linkage Development

- Significant effort devoted to the WHAT, WHERE, HOW
- Design principles for how the online data are inserted into the EMR:
  1. Feed into existing forms where possible (one new form created)
  2. Require no work, of providers, to “pull in” data
  3. Only pull in what needs to be pulled in.
  4. Distinguish in the open text box that it is from the parent-brackets & the words “Parent Report”

*Example:* [Parent report: One eye seems lazy]
  5. Ensure clarity about potential resources/next steps
  6. Provide a full summary in case someone wants to review the detail

# Online PCW Tool – Getting the Parent’s Responses Into the EHR



# Online PCW Tool – Getting the Parent’s Responses Into the EHR

## EHR Forms Updated to Align to Bright Futures through this process

PCW Section	Related EHR Forms
1A: Open-ended questions	Nurse Intake Form Developmental Screen Form Assessment of the Family ( <b>New Form</b> )
1B: General Child Screening/TCC Lead & TB Screeners	Nurse Intake, Assessment & Plan TB/Lead
1C: Developmental Surveillance & Screening	Developmental Screen (ASQ not imported)
1D: Screeners Assessing for Issues in the Family/Home	Nurse Intake Form Assessment of the Family ( <b>New Form</b> )
2: Anticipatory Guidance/Parent Education	Anticipatory Guidance





# Examples of the EHR Feed: Open Ended items

**Continued...**  
The questions below will help your child's doctor or health care provider understand the specific needs of your family.

**General Questions about You and Your Child:**

1. Share one thing that you like about your child's behavior that you appreciate about her. *she can say so much lately! It is fun to hear the new words she comes up with everyday!*

2. Are there any specific concerns you would want to discuss at your child's upcoming well visit?  
 Yes  No  
 Please Describe: *Would she be interested in toilet training yet?*

3. Have there been any changes at home lately? Check all that apply.  
 None  
 Move  
 Job change  
 Separation  
 Divorce  
 Death in the Family  
 Other, please describe  
 (This text prompt is optional to record text)

**Questions about Your Growing and Developing Child:**

4. Do you have any concerns about your baby's learning, development, or behavior?  
 A lot  A little  Not at all  
 Please Describe: *One thing parent enjoys about child: [Parent report: Should she be interested in toilet training?]*  
*[Parent report: She can say so much lately. It is fun to hear the new]*

**Zyr Nurse Intake: Donald Duck**

**Zyr Nurse Intake**

Interpreter Used: \_\_\_\_\_ History Source: Nurse  
 Accompanied By:  Mom  Dad  Sibling  
 Genetic Testing:  QTY  QTN

Current Medications: \_\_\_\_\_ Add Medication  
 Family History: \_\_\_\_\_  
 Social History: \_\_\_\_\_  
 Parental Concerns: \_\_\_\_\_  
 One thing parent enjoys about child: \_\_\_\_\_

**Diet**

Milk: \_\_\_\_\_ Daily Intake of Milk:  <20 oz/day  >20oz/day  
 Comment: \_\_\_\_\_

Balanced Diet:  vegetables/fruits  dairy  grains  meat  iron rich foods

**Supplements/Dental Care**

Vitamins:  yes  no  
 Fluoride Supplement Needed:  yes  no  
 Dental Care/Toothbrushing:  yes  no

**KCAFIMI**  
The Child & Adolescent Health Measurement Initiative

# Examples of the EHR Feed: General Child Screeners

4. Do you give your child any vitamins or herbal supplements?	<input type="radio"/>	<input checked="" type="radio"/>
5. Does your child live with both parents in the same home?	<input type="radio"/>	<input checked="" type="radio"/>

**Social History:** [Parent report: Child lives in more than one home]

**Parental Concerns:** [Parent report: She is not toilet trained yet and has no interest.]

One thing parent enjoys about child: [Parent report: She can say so much lately. It is fun to hear the new words she comes up with.]

**Diet**

Milk:  <20 oz/day  >20oz/day

**Balanced Diet:**

- vegetables/fruits
- dairy
- grains
- meat
- iron rich foods

**Supplements/Dental Care**

Vitamins:  yes  no

Fluoride Supplement Needed:  yes  no

Dental Care/Toothbrushing:  yes  no

Comment:



# Example of the EHR Revisions: Anticipatory Guidance

ANTICIPATORY GUIDANCE: Cinderella Disney

4 MONTH WELL CHILD ANTICIPATORY GUIDANCE

ITEMS DISCUSSED

**SELECT ALL MAIN TOPICS**

Family functioning

Select All Family Functioning Sub Topics

- parent roles/responsibilities
- parental responses to infant
- child care provider's

Infant development

Select All Infant Development Sub Topics

- consistent daily routines
- sleep (crib safety - sleep location)
- parent-child relationship (play - tummy time)
- infant self-regulation (social development, infant self-calming)

Anticipatory Guidance Form Updated to include age-specific Bright Futures subpriorities



## Online PCW Tool – Demonstration

### DEMONSTRATION OF THE ONLINE TOOL:

*What does it look like?*

*(Parents complete, at home, before the well-visit)*

<http://www.youtube.com/watch?v=KQMtCoFcWIA>

# Your Child's 3 Year Well-Visit

This form will help us give your child the best care possible. We will use it to focus the visit on the information you would like to receive.

Child's Name \_\_\_\_\_

Child's Date of Birth \_\_\_\_\_

Medical Record Number \_\_\_\_\_

Your Name: \_\_\_\_\_ Your relationship to the child: \_\_\_\_\_

Share with me one thing that **your child is able to do** that you are excited about: \_\_\_\_\_

Are there any specific **concerns** you want to discuss today?  Yes  No \_\_\_\_\_

Have there been any **major** changes in your family lately?  None  Move  Job Change  Separation  Divorce

Death in the family  Other? Describe: \_\_\_\_\_

Do you have easy access to a computer?  Yes  No

GENERAL HEALTH INFORMATION	Yes	No	Unsure
Since your last visit, has your child had any <b>major</b> illnesses and/or hospitalizations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has your child ever had a bad reaction to a vaccine (temp > 104, inconsolable crying > 3 hours)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have any of your child's relatives developed new medical problems since the last visit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have concerns about how your child hears?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have concerns about how your child speaks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do your child's eyes appear unusual or seem to cross, drift, or be lazy?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your child live in more than one home? (e.g. divorced parents)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your child watch TV or play computer or video games for more than 1-2 hours per day?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do any adults who are around your child smoke? (includes inside or outside the house)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have a dentist for your child? <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unsure			
Do you brush your child's teeth every day? <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unsure			
Who takes care of your child most days of the week? <input type="checkbox"/> Child's Mother <input type="checkbox"/> Child's Father <input type="checkbox"/> Other Relative (e.g. grandmother) <input type="checkbox"/> Nanny <input type="checkbox"/> Day-care <input type="checkbox"/> Other: _____			
In general, how well do you feel you are coping with the day-to-day demands of parenthood? <input type="checkbox"/> Not well at all <input type="checkbox"/> Not very well <input type="checkbox"/> Somewhat well <input type="checkbox"/> Well <input type="checkbox"/> Very well			

**PICK YOUR PRIORITIES: UP TO THREE** Tell us what you want to talk about today by checking up to **3** boxes **TOTAL** from the topics below (fewer than 3 is OK, too). Find information on the topics below at [www.██████████.org](http://www.██████████.org).

**Your Child & Your Family**

- Importance of family time & eating meals together
- Ways to guide & discipline your child
- Your child's moods & emotions
- Sibling rivalry
- Balancing work and family
- Alternative/natural care therapies or products you may use with your child

**Promoting Physical Activity**

- Importance of physical activity for your child
- Importance of outside family activities
- Television - how much TV is ok

**Encouraging Language Development**

- Importance of singing songs to your child
- Importance of using simple words, asking simple questions & repeating what your child saying
- Ways to read to your child to promote language development

**Playing With Peers**

- Behaviors to expect in the next few months
- How your child gets along with others
- Playtime with other children for your child
- Fun games to play with your child
- Issues related to preschool

**Your Child's Safety**

- Preventing injuries indoors & outdoors
- Installing a car seat correctly/when to use a booster seat
- Supervising your child near all streets/driveways-never crossing the street alone
- Importance of your child wearing a helmet
- Preventing falls from stairs, windows & other dangerous places
- Gun safety at home & other places

**Other**

\_\_\_\_\_

## YOUR GROWING AND DEVELOPING CHILD

Do you have any specific concerns about your child's learning, development or behavior?  A lot  A little  Not at all  
Describe: \_\_\_\_\_

Do you have any concerns about your child's vision (how your child sees)?  Yes  No

Do you have any concerns about your child's hearing?  Yes  No

Please check each task your child is able to do right now.

**Gross Motor**

- Throw a ball overhand
- Balance on each foot for 1 second
- Jump forward, both feet leaving the floor at the same time

**Fine Motor**

- Stack 6 blocks to build a tower
- Use a turning motion with his/her hand, i.e. turning a doorknob
- Imitate (draw) a vertical line
- Stack 8 blocks to build a tower

**Social/Emotional**

- Name a friend
- Pretend play such as "playing house".
- Help take care of him/herself by feeding & dressing

**Cognitive/Communicative**

- Name 4 pictures (such as cat, dog, ball)
- Brush teeth with help
- Name 1 color
- Know 2 adjectives (a word that describes a person, place or thing such as "pretty" or "happy")
- Speech is understandable more than half of the time

**FOR OFFICE USE ONLY**

Three Year Well Child Check

**Concerns:**

PMH:

FamHx:

Drug Allergies:

Medicines:

Need fluoride:

Soc Hx:

**PE:**

Skin: \_\_\_\_\_  
Head/AF: \_\_\_\_\_  
Eyes/Align/RR: \_\_\_\_\_  
Ears: \_\_\_\_\_  
Nose: \_\_\_\_\_

Mouth: \_\_\_\_\_  
Neck: \_\_\_\_\_  
Heart: \_\_\_\_\_  
Lungs: \_\_\_\_\_  
Abdomen: \_\_\_\_\_

GU: \_\_\_\_\_  
Extremities: \_\_\_\_\_  
Hips: \_\_\_\_\_  
Spine: \_\_\_\_\_  
Neuro: \_\_\_\_\_

Abnormal Findings:

**Assessment:**    \_\_\_\_\_ Well Child Check    \_\_\_\_\_ Normal Growth/Development  
                          \_\_\_\_\_ Other:

\_\_\_\_\_ Vaccine questions answered/VIS given

**Physician: I have reviewed the information.**

**Signature** \_\_\_\_\_

**Date** \_\_\_\_\_

# Your Child's 3 Year Well-Visit

Weight: \_\_\_\_\_

Length/Height: \_\_\_\_\_

Child's Name \_\_\_\_\_

Child's Date of Birth \_\_\_\_\_

Vital Signs

Respirations: \_\_\_\_\_

Temperature: \_\_\_\_\_

Heart Rate: \_\_\_\_\_

Medical Record Number \_\_\_\_\_

At Today's Visit On: \_\_\_\_\_

Number of Vaccines: \_\_\_\_\_ Given For: \_\_\_\_\_

Your Child Received The Following Tests:

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

Results will be available by: \_\_\_\_\_

- Diphtheria, Tetanus, Pertussis (DTaP)
- Haemophilus influenza type B (Hib)
- Hepatitis A (HepA)
- Hepatitis B (HepB)
- Inactivated polio virus (IPV)
- Influenza

- Measles, Mumps, Rubella (MMR)
- Meningococcal
- Pneumococcal (PCV)
- Rotavirus
- Varicella
- Other \_\_\_\_\_

## INFORMATION PROVIDED AND INSTRUCTIONS

### Handouts Provided

- Healthy Minds
- Impact of Media
- Mealtime
- Other \_\_\_\_\_

### Additional Information/Resources

- Go to: [www.██████████.org](http://www.██████████.org) for information about each of the priority topics.
- If you have questions, please feel free to call ██████████ at ██████████

### Parents-Your Notes:

## Plan & Instructions

## YOUR GROWING & DEVELOPING CHILD

- Based on your responses, looks great!
- Let's keep an eye on: \_\_\_\_\_

Make a special effort to focus on the learning activities in the sheet(s) provided for:

- Gross Motor
- Fine Motor
- Problem Solving
- Personal-Social
- Communication

Your child should have a visit with:

- Education Service District (ESD)/Early Intervention (EI)-Contact: ██████████
- Child Development ██████████
- Other: \_\_\_\_\_ For: \_\_\_\_\_

Make Appt Within: \_\_\_\_\_  Weeks  Months

Your child's next well visit should be when your child is age \_\_\_\_\_

**PARENTS — We Need You**

Well-child care is about much more than your child getting weighed or immunized.

We aim to **PARTNER WITH YOU** to **CUSTOMIZE YOUR CHILD'S CARE** and **GIVE THE BEST CARE** possible.

The [redacted] is changing well-child visits for young children!

**Here Is What Parents Of Children Under 4 Can Expect:**

**1 PARENTS**  
**After Your Child's Well Visit: Give Us Feedback**  
 by completing an online, confidential questionnaire at home about the health care your child received.

**2 THE CHILDREN'S CLINIC**  
**Using Your Feedback: The [redacted] Clinic Will Understand Where We Can Do Better**  
 [redacted] Clinic will give eligible children's parents a postcard with information about this survey.

**3 PARENTS**  
**Before Your Child's Well Visit: Learn About & Identify Your Priorities**  
 by completing an online tool at home. You and your child's doctor can use this information to customize the well-visit to your child and family needs.

**When: July-December 2009**  
 Our partners in this project, the Child and Adolescent Health Measurement Initiative (CAHMI), will share summarized, confidential questionnaire results with us.

**When: December 2009**  
 We will be asking you to do this online tool before your well-visits beginning in early 2010.

**Coming Soon!**

**When: Early 2010**  
 We will be asking you to do this online tool before your well-visits beginning in early 2010.

**THANK YOU IN ADVANCE FOR PARTNERING WITH US**

**Example Office Poster – Online Promoting Healthy Development Survey & Plan My Child's Well-Visit Tool**



## Example Postcard – Plan My Child’s Well-Visit Tool

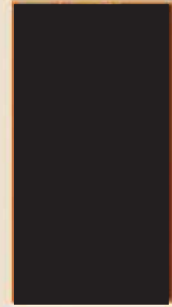
**Dear Parent,**

The [redacted] Clinic is changing the way we do well-child care for young children (4 months-3 years old). Before your child’s well-visit please complete an online tool at [www.\[redacted\].org](http://www.[redacted].org) to help prepare for the visit and make sure your child’s health needs are met.

[www.\[redacted\].org](http://www.[redacted].org)

**Instructions:**

- 1 Go to: [www.\[redacted\].org](http://www.[redacted].org) up to 1 week before each well-child visit & complete the step-by-step tool
- 2 For your child’s appointment, bring the *Visit Guide* you get at the end of the tool & read the educational information that is emailed to you
- 3 Get educational information & tips from national pediatric experts before & after the visit (a link to the Education Website is on the homepage)



Thank you for your partnership!  
Sincerely,



# Welcome page for the Plan My Child's Well-Visit Tool

## Plan My Child's Well-Visit

**Welcome!** This is the online tool that The [redacted] Clinic is asking parents to complete before their child's well-visit. The goal for this tool is to make the well-child visit better. The Children's Clinic health care providers will use your answers to tailor the well-child visit in order to focus on the topics you want to discuss and issues that are important for your child and family.

### Step 1



**Answer a Questionnaire**  
about your child and family.

### Step 2



**Pick Your Priorities**  
for what you want to talk or get information about at your child's well-visit.

### Step 3



**Get Your Visit Guide**  
that you and your child's health care provider will use to tailor the visit to your child's family needs.

**Get Started** ▶  
Click Here to Begin

### Returning Users

Your User ID (your email address)

Password

Forgot Password?



### Education Site

The education material provided during the online tool are accessible at any time. Follow the link below to visit our Education Site.




About This Web Site | Privacy Statement | FAQ | Contact Us

## Example Postcard – Online Promoting Healthy Development Survey

**Dear Parent or Guardian,**  
I am personally inviting you to take a few minutes to complete a survey about your child's well-visits. The results from this survey will help me understand where we can partner to better meet your child's needs and provide the best care possible.

*Your partnership and feedback is important to me.*

Please go to: [www.██████████.com](http://www.██████████.com) to complete the survey




- Your Participation is voluntary and your responses are kept confidential. You will not be asked for your name or your child's name.
- You will receive a customized feedback report after you complete the survey, which you can use at the next well-visit.
- The ██████████ Clinic will use the survey results to identify what we can do better.
- If you prefer to fill out a paper-based version of the survey, please call ██████████ or ask for one before you leave today.
- Please accept the included Dutch Bros. Coffee gift certificate as appreciation for your time and help.

Thank you for help.

**Insert Provider's Name & Signature Here**

**Please Complete the Survey within 1 Week.**  
*It should take 10-15 minutes to complete.*



# Child Sticker for Promoting Healthy Development Survey



## Appendix F: Reach Challenge Press Release for Well Visit Planner Mobile



### AcademyHealth and Health 2.0 Announce the Winner of the Relevant Evidence to Advance Care and Health (REACH) Challenge

For Immediate Release:  
January 31, 2012

Kristin Rosengren  
202-689-9067  
[kristin.rosengren@academyhealth.org](mailto:kristin.rosengren@academyhealth.org)

WASHINGTON, D.C.—January 31, 2012—AcademyHealth today announced that an experimental application to track patients' care experiences in real time is the winner of the Relevant Evidence to Advance Care and Health (REACH) Developer Challenge. An international team of researchers including Deirdre McCaughey, Dominique LaRochelle, Aamer Chaffer, Tejal Raichura, Shantanu Dholakia, Latoya Tatum, and Ashley Kimmel won first place with their project, Real-time Care Experience Feedback Using QR Codes. The competition was part of the Health 2.0 Developer Challenge program and included a cash prize in addition to opportunities to work directly with AcademyHealth to further develop, vet and disseminate the winning product.

AcademyHealth, a nonprofit health policy and research organization, launched the REACH Challenge to foster collaboration between the research and developer communities, and to produce innovative applications that provide access to evidence-based information to support more meaningful engagement and real-time decision-making.

"The powerful combination of technology, social media, and data enable whole new ways of conceiving and conducting research," said AcademyHealth President and CEO, Dr. Lisa Simpson. "We launched the REACH Challenge to highlight the interdisciplinary nature of health services research, to encourage interactions between researchers and nontraditional partners, and to get people thinking about the many ways this kind of work might improve health and health care."

Submitted projects ranged from applications to help patients engage more fully in their care, to platforms that helped support caregivers and clinicians. The winning submission, *Real-time Care Experience Feedback Using QR Codes*, looked at ways that patients could provide feedback using their mobile phones at the point of care. Runners up included the *Child & Adolescent Health Measurement Initiative's Well Visit Planner Mobile App*, mobile data application to help parents plan and navigate their child's well visits, and *Aggregated Self-Experiments*, a platform that helps patients develop user-generated self-experiments and online information.

All three teams will receive travel support to AcademyHealth's 2012 Annual Research Meeting (ARM) in Orlando, Florida to showcase their submissions. In addition, the winning team will be awarded \$5,000 plus travel support to attend a private meeting where they will have an opportunity to workshop their application with health policy thought leaders in conjunction with the AcademyHealth National Health Policy Conference (NHPC).

More Information:

- Winner: Real-time Care Experience Feedback Using QR Codes: <http://mhealthcoach.com/RealTimeFeedbackLight.jpg>; Deirdre McCaughey can be reached at [dxm68@psu.edu](mailto:dxm68@psu.edu)
- Runner Up: Well Visit Planner – A demo of the Well Visit Planner online tool is available at: <http://www.youtube.com/watch?v=KQMtCoFcWIA>. Please contact [pcw@cahmi.org](mailto:pcw@cahmi.org) for more information.
- Runner Up: Aggregated Personal Experiments, a C3N platform from MIT Media Lab, Lybba, and Cincinnati Children's Hospital Medical Center, that helps patients develop user-generated self-experiments: <http://www.personalexperiments.org/>

More information about AcademyHealth's resources, initiatives and projects can be found at <http://www.academyhealth.org>. You can learn more about the Health 2.0 Developer Challenge at <http://www.health2challenge.org>.

About the Health 2.0 Developer Challenge: The Health 2.0 Developer Challenge was launched on June 2, 2010, with support from the Department of Health and Human Services (HHS). The goal of these challenges is to bring the Health 2.0 Community together for rapid application development, both online and in physical code-a-thons. For more see [www.health2challenge.org](http://www.health2challenge.org).

About Health 2.0: Health 2.0 -- The conference. The media network. The Innovation community. The Health 2.0 Conference is the leading showcase of cutting-edge technologies in health care, including Online Communities, Search and lightweight Tools for consumers to manage their health and connect to providers online. The Health 2.0 Developer Challenge is a series of prize competitions promoting health technology innovation. Health 2.0 also has its own media channels, Health 2.0 News and Health 2.0 TV; its own market intelligence service, Health 2.0 Advisors; and also sponsors the Health 2.0 Accelerator industry consortium. Health 2.0 was founded by Indu Subaiya & Matthew Holt in 2007 and is now a community of hundreds of organizations and thousands of innovators. For more information, see [www.health2con.com](http://www.health2con.com).

About AcademyHealth: AcademyHealth is a leading national organization serving the fields of health services and policy research and the professionals who produce and use this important work. Together with its members, AcademyHealth offers programs and services that support the development and use of rigorous, relevant, and timely evidence to increase the quality, accessibility, and value of health care, to reduce disparities, and to improve health. A trusted broker of information, AcademyHealth brings stakeholders together to address the current and future needs of an evolving health system, inform health policy, and translate evidence into action. Website: [www.academyhealth.org](http://www.academyhealth.org); Twitter: @academyhealth and @NHPC

###