

Summary of the Design Plan for the National Evaluation of the CHIPRA Quality Demonstration Grant Program

Prepared for:

Agency for Healthcare Research and Quality
Rockville, MD 20850

Contract No. HHS A29020090002191

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AHRQ Publication No. 12-MP064
July 2012

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Please note: This document updates the original design plan submitted to the Agency for Healthcare Research and Quality on July 27, 2011.

The opinions presented in this report are those of the authors, who are responsible for its content, and do not necessarily represent the position of the U.S. Department of Health and Human Services or the Agency for Healthcare Research and Quality.

For more information, including the expanded version of this design plan, contact CHIPRAdemoeval@ahrq.hhs.gov.

Summary of the Design Plan for the Evaluation

The Children’s Health Insurance Program Reauthorization Act of 2009 (CHIPRA) allowed for funding of 10 demonstration projects to identify effective, replicable strategies for improving the quality of children’s health care. In February, 2010, the U.S. Department of Health and Human Services announced demonstration grant awards to Colorado, Florida, Maine, Maryland, Massachusetts, North Carolina, Oregon, Pennsylvania, South Carolina, and Utah. Six of these States received grants to work in multi-State collaborations, bringing the number of States that received program funding to 18. In 2009, the 18 States accounted for more than 31 million children enrolled in Medicaid or CHIP—about 42 percent of all children under 18 years of age in the United States.

The grantees and their partner States are implementing 51 projects in five grant categories:

- Under **Category A**, grantees will experiment with or evaluate the use of the CHIPRA initial core set and supplemental pediatric quality measures. The objective is to identify barriers to collecting and reporting these measures and to explore the impact of reporting on quality improvement activities.
- Grantees working in **Category B** will develop or enhance health information technology (IT) to improve quality of care, reduce costs, and increase transparency. Grantees can pursue a range of health IT solutions such as encouraging uptake of electronic health records (EHRs), developing a regional health information exchange (HIE), and interfacing electronic health information with eligibility systems or social service organizations.
- **Category C** funding supports the development or expansion of provider-based care models. Among these is the patient-centered medical home, which aims to improve complex care management and enhance the coordination of care across the mental health, physical health, and social service systems.
- Under **Category D**, grantees will implement and evaluate the impact of a model EHR format for children, which is being developed under a separate Agency for Healthcare Research and Quality (AHRQ) contract, in partnership with the Centers for Medicare & Medicaid Services (CMS).
- In addition to working in at least one of the other categories, grantees are able to propose additional activities under **Category E**. These activities could enhance their work under another category or focus on an additional interest area for CMS, such as long-term care or school-based models.

In August 2010, AHRQ, in partnership with CMS, awarded a contract for a national evaluation of the demonstration program. The national evaluation team, which includes staff from Mathematica Policy Research, the Urban Institute, and AcademyHealth, is charged with conducting a rigorous evaluation to determine the impact of grantee activities on the quality of children’s health care and disseminating evaluation results to a wide range of stakeholders. This report provides an overview of the goals and methods of the national evaluation.

Overview of the National Evaluation

The structure of the CHIPRA Quality Demonstration Grant Program combines a broad scope and a complex “nesting” of projects; this single demonstration program covers 10 grants across 18 States implementing 51 projects in 5 categories. (For the purposes of this evaluation, a “project” is defined as a set of intervention or assessment activities implemented by a grantee or partner State under one of the five categories noted above.) This structure allows the national evaluation team to conduct a multi-level evaluation by:

- Assessing the implementation of single projects independently of all others, focusing on whether the project’s goals and objectives were achieved.
- Combining information across projects within a single category to identify effective strategies and successful outcomes.
- Examining how specific States improved the quality of children’s health care by implementing multiple projects and describing how the activities in one category supported or enhanced projects in other categories.
- Conducting grantee-level analyses for the six grantees working with multi-State collaborations, examining the extent to which these collaborations contributed to the success of the demonstration activities.
- Assessing the overall benefits of the demonstration program by comparing selected outcomes of the participating States with those of non-participating States.
- Examining the contributions of demonstration activities to improve quality of care in relation to four CMS special interest areas: oral health, obesity, behavioral health, and Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) programs.
- Providing insights into the successes and limitations of the program to inform future Federal demonstration efforts.

To accomplish these goals, we will gather quantitative and qualitative data, analyzing this information to address a series of research questions. Our overall goal is to describe and analyze the contribution of demonstration activities to improving the quality of children’s health care services. In some cases, we will be able to achieve this goal by conducting formal impact analyses to determine whether particular interventions improved child health outcomes; in other instances, we will develop case studies that show how States combined multiple approaches to improve quality of care.

AHRQ and CMS have identified 20 broad research questions and well over 200 detailed ones for Categories A through E that the national evaluation might address. Examples of specific questions we will address for each of the five grant categories are noted below:

- Were grantees able to collect and report on the full set of core measures?
- How did the grantees collect data for and generate the core measures?
- How did stakeholders use core measures, and what was their impact on the delivery system?
- What resources helped grantees collect and report the core measures?

- What methods did grantees use to report core measures back to consumers and practices?
- How did stakeholders (health plans, providers, and consumers) use these measures?
- Compared with States that did not have CHIPRA grants, what was the impact of these demonstrations on the capacity of State systems to improve health care to children?
- What health IT or health IT enhancements were designed to improve the quality of children’s health care or reduce costs?
- How was the health IT used to improve quality of care for children enrolled in Medicaid or CHIP, and did it increase transparency and consumer choice?
- What models of provider-based care did grantees implement?
- How were these models implemented, and did they change children’s health care quality?

Over the course of the project, we will collect substantial amounts of quantitative and qualitative data and plan to exploit these data as fully as possible to address most of the research questions initially posed by AHRQ and CMS, as well as other questions that have arisen in the course of working with the demonstration States. Sources of quantitative data include administrative and claims data; original survey data from physicians; and, for some questions, secondary survey data available through the State or other sources. Qualitative data sources include program documents and reports, key informant interviews with program staff and other stakeholders, and focus groups with physicians and families.

Our findings will be organized, published, and disseminated in ways that address the needs of stakeholders, including Congress, AHRQ, CMS, States, the provider community, and family organizations. We will disseminate the results of our analyses through: issue briefs for consumers and policymakers; descriptions of the progress of the evaluation; replication guides for other States; postings of program profiles for Medicaid and CHIP Promising Practices and AHRQ Innovations; conference presentations; manuscripts in professional journals; and a comprehensive final report. Much of this information will be available through AHRQ’s Web page dedicated to the national evaluation.

Developing the Design for the National Evaluation

This design report was originally written in July 2011 and updated according to new information available from States as of mid-March 2012. We view it as a “living document” that will evolve as the States’ programmatic and evaluation activities are shaped by actual implementation experiences. Grantees and partner States vary widely with respect to implementation schedules for specific activities, and some States finalized critical components of their projects since we completed our original design report in July 2011.

CMS allowed grantees to contract with various entities to conduct independent evaluations of the CHIPRA quality demonstration projects. Seven grantees (Colorado, Florida, Maine, Maryland, Massachusetts, South Carolina, and Utah) have done so. To coordinate data collection activities, the national evaluation team has and will continue to work with these evaluators and with research staff in grantee and partner States that do not have independent evaluators. We are aiming to ensure that national and grantee-initiated evaluation activities are not duplicative and that the combined evaluations are more comprehensive than would be possible for either team alone.

The ongoing evolution of some State projects and State-sponsored evaluation activities poses the major challenge of designing and conducting a national evaluation for projects whose specific procedures and objectives are not yet fully defined. Moreover, States started the implementation of their projects at different stages because their experience with reporting of quality measures, diffusion of health IT, and medical home initiatives vary substantially. The national evaluation team is working and will continue to work closely with the demonstration States to align its objectives with State-specific implementation schedules and the States' prior experiences. This collaboration is especially important given the range of activities being pursued by States and the varying timelines for implementation.

We have reviewed the grantees' original applications (submitted to CMS in January 2010), their final operational plans (submitted to CMS in November 2010), their evaluation addenda (submitted to CMS in April and May 2011), and their semi-annual progress reports (submitted to CMS on August 1, 2011 and February 1, 2012). Based on these reviews, discussions with AHRQ and CMS, and meetings of the project's technical expert panel, we identified several overarching design, data collection, and analytical challenges. One of the most important challenges involves determining the extent to which changes in quality outcomes, such as reduction in inappropriate use of emergency rooms or improved family satisfaction with care, can be attributed to the grantees' activities and interventions. To make this kind of causal inference, we need first a reliable measure of "the counterfactual"—that is, the outcomes that would have occurred had the CHIPRA quality demonstration funds not been available. Strong counterfactual data can provide convincing answers to questions about whether the CHIPRA funds actually made a difference or whether observed changes would have happened anyway. To ensure that such data are available, the national evaluation team has worked and continues to work actively with States to identify opportunities for implementing evaluations using comparison group designs.

Other challenges include:

- Understanding, and accounting for, multiple health reform efforts within and across States.
- Ensuring consistent definition and measurement of project concepts and outcomes.
- Managing substantial qualitative and quantitative data to put them to best use.

Evaluation Strategies for Specific Grant Categories

Category A: Developing, Reporting, and Applying Core and Supplemental Quality Measures

The CHIPRA Quality Demonstration Grant Program is an important component of CMS's and AHRQ's efforts to advance the consistent collection across all States and the District of Columbia of standard measures of the quality of children's health care. Although States recently have increased the number of measures they collect and report to CMS (for example, several CHIP-related measures), these efforts often cover only a subset of Medicaid and CHIP populations. The national evaluation aims to:

- Document grantees' experiences in reporting on all core pediatric quality measures using a CMS-approved format and in developing and utilizing supplemental measures in coordination with the Pediatric Quality Measures Program (PQMP).

- Identify strategies for more efficient and effective performance measurement of Medicaid and CHIP programs across all types of delivery and payment models.
- Disseminate information on how performance measurement can be used to improve the quality of children’s health care.

Projects in Category A will be evaluated using a mixed-methods, longitudinal, comparison design. First, the national evaluation will document growth from 2011 to 2014 in the capacity of demonstration States to collect, report, and use the initial set of core measures, as well as supplemental measures. Reporting capacity will be based on the number of core measures States are able to report to CMS using the correct specifications. Use of measures will be examined with respect to state strategies for integrating these measures into quality improvement initiatives, developing different reporting modalities (for example, reporting to the public versus reporting to providers or plans), and to a more limited degree, linking measures to payment incentives.

Among CHIPRA grantee States, we also will examine the intersection of Category A with other grant categories. For example, we may compare progress in Category A for States with and without Category B funding. This will allow us to determine how CHIPRA-funded health IT activities might contribute to States’ ability to collect and report the core set of measures. To strengthen the evaluation further, we also will compare the 10 CHIPRA Category A demonstration States to other States with respect to growth in capacity to report and use core quality measures. Comparison States may include the eight CHIPRA-funded States that are not participating in Category A, as well as States with no CHIPRA quality demonstration funding.

Category B: Using Health IT to Improve Child Health Care Quality

The goal of the CHIPRA Quality Demonstration Grant Program for Category B is to support demonstration States in using health IT effectively to improve the quality of children’s health care, reduce Medicaid and CHIP expenditures, and promote transparency and consumer choice. The 12 States that are implementing Category B projects are using various combinations of EHRs, personal health records (PHRs), and HIEs for such purposes as (1) automated reporting of CHIPRA core quality measures; (2) EPSDT reporting; (3) providing clinical decision support; (4) providing reports to promote quality improvement in clinical settings and support the informational needs of public health agencies; (5) fostering consumer engagement; and (6) coordinating services across different types of providers (especially in connection with medical homes).

The national evaluation aims to:

- Document how States are implementing health IT effectively to improve the quality of children’s health care and identify less effective strategies that States should avoid.
- Measure the impact of health IT on the quality of children’s health care, especially for children with special health care needs.
- Determine whether and how health IT increases transparency and consumer choice while safeguarding the privacy and security of personal information.
- Assess the extent to which States used funding under these grants in ways that did not overlap with their use of other Federal health IT grants.

To accomplish these goals, we will combine multiple evaluation strategies. First, in one State (Pennsylvania), we plan to use a lagged comparison group design to conduct a quasi-experimental analysis that compares processes, outcomes, and Medicaid and CHIP expenditures for children who receive care from selected practices participating in the State’s Category B project. Second, we will undertake a descriptive, non-experimental analysis to assess whether CHIPRA-funded health IT infrastructure investments improve States’ capacity to report on the core set of children’s health care quality measures. This analysis will start by identifying the States (such as Maine and Pennsylvania) that have explicitly linked their Category B activities to their Category A goals. We will examine changes in the number of core measures that these States reported to CMS and analyze information gathered from key informant interviews to determine whether and, if so, how the Category B activities contributed to increases in the number of reported measures. This analysis should provide useful information to other States that are seeking to use health IT resources to improve core quality measure reporting. For States that are not linking Category B activities directly to Category A work, we will describe the extent to which such activities gave States or providers greater capacity for care coordination (a common goal for health IT improvements) or gave families more access to medical information about their children. In all our analyses, we will need to account for health IT projects funded through other mechanisms.

The Category B demonstration States differ greatly from one another in their prior health IT experience, but most will participate in at least some of the federally funded health IT initiatives that will unfold concurrently with the CHIPRA Quality Demonstration Grant Program. CMS encouraged States to leverage the resources from other initiatives to enhance their Category B projects, and therefore an important component of the Category B–specific evaluation will be to document and understand States’ participation in non-CHIPRA health IT programs and to examine the impact of CHIPRA-funded health IT interventions both alone and in combination with other federally funded initiatives.

Category C: Assessing Provider Based Models of Care

The goal of the provider-based interventions funded under Category C of the CHIPRA quality demonstration grants is to develop, implement, and determine the impact of these interventions on the delivery of children’s health care, including access, quality, and cost. Of the 17 demonstration States that are implementing Category C projects, 12 are working with child-serving practices to develop or enhance patient-centered medical homes (PCMHs); 3 are developing care management entities that coordinate services for children with serious emotional and behavioral disorders; and 2 are strengthening school-based health centers. The national evaluation aims to:

- Identify the extent to which States can implement provider-based models of care to improve the quality of children’s health care, especially for children with special health care needs.
- Identify the best strategies for implementing these models, including any barriers and how they can be overcome.
- Determine the impact of provider-based models of care on the quality of children’s health care, especially for children with special health care needs.

To accomplish these goals, the national evaluation team will employ a longitudinal, quasi-experimental, mixed-methods analysis that compares program processes, program outcomes and impacts, and Medicaid and CHIP expenditures for children who receive care from (1) the practices participating in Category C projects and (2) a set of comparison practices identified in consultation

with the demonstration States. The evaluation of Category C interventions will make use of the full range of data sources assembled for the evaluation.

The medical home models that States are implementing vary along at least five important dimensions:

1. The specific definitions of PCMH on which they are basing their programs and the tools used to assess them.
2. The target population (all Medicaid and CHIP-enrolled children or enrolled children with special health care needs).
3. Combinations of various activities (such as learning collaboratives and coaching).
4. Payment models for reimbursing practices for taking on new roles or developing new capabilities to serve as medical homes.
5. Timing of project implementation.

One of the most critical issues when evaluating the impact of Category C interventions on key outcomes of interest involves developing a consensus on the best approach for States to use to assess the extent to which child-serving practices have implemented the elements of a PCMH. Because States' medical home interventions vary along a number of dimensions, we will need to measure components of the various PCMH definitions and criteria that States are using if our statistical analysis is to tease out the impact of specific components on key outcomes of interest.

Category D: Implementing the Model Pediatric Electronic Health Record (EHR) Format

Category D demonstration States, North Carolina and Pennsylvania, will implement the CMS/AHRQ model pediatric EHR format at participating practices or systems. The objectives of this grant category are to: (1) evaluate the impact of the model pediatric EHR format on children with chronic conditions, overall pediatric health care quality, and health care costs; (2) learn how best to use data from the model pediatric EHR format for quality improvement and cost reduction purposes; (3) determine what strategies are most effective in recruiting providers and promoting their meaningful use of the model pediatric EHR format; (4) identify issues around interoperability, privacy and security, personal health records, and beneficiary access to their personal health data; and (5) measure the impact of the model pediatric EHR format on children's health care quality, especially children with special health care needs.

CMS's guidance for Category D projects calls for each grantee to conduct their own data collection and analysis to address the agency's evaluation goals. For this category, the role of the national evaluation team will be to (1) provide consultation and assistance to the grantees as needed during the process of planning and conducting the evaluation and (2) gather information needed for the national evaluation that is not feasible for the States to collect (such as information from State staff themselves about any assistance received to help implement their activities).

One of the most important tasks for the national evaluation will be to monitor the grantees' evaluation efforts and ensure that we thoroughly understand their evaluation methodology, data sources, and ultimately, their findings. We will work with the grantees to determine whether they will be providing any reports to CMS regarding their progress and results and, if so, what these reports

will cover specifically. To ensure that we have data to address key evaluation questions, we plan to conduct key informant interviews with selected stakeholders to fill any informational gaps within the States' own data collection efforts.

Category E: Grantee-specified Projects

Category E grants offer States the opportunity to implement additional strategies to improve health care coordination. The activities may relate to one of the CMS key interest areas or some other area of the grantee's choice, provided it complements the activities performed under another grant category. Because the guidelines for this category were less specific than for Categories A through D, projects are quite varied in scope and methods. Six grantees (involving nine States) have distinct projects in Category E:

- Colorado and its New Mexico are working on projects that are closely connected to their Category C projects and that involve efforts to improve preventive care, increase screening rates, and enhance management of chronic conditions.
- Florida and Illinois are establishing stakeholder workgroups to improve the quality of perinatal and early childhood care for children enrolled in Medicaid and CHIP.
- Georgia will develop and implement a statewide network of certified family and youth peer support specialists to increase access to trained support for youth with severe behavioral health needs and their families.
- Massachusetts is forming a sustainable coalition of stakeholders to develop a shared understanding of pediatric health care quality priorities, create a platform for formulating system-wide goals and objectives, and implement activities to support those goals and objectives, including new measures of pediatric health quality.
- Utah and Idaho are establishing a sustainable, regional pediatric quality improvement network.
- Vermont is (1) continuing to provide technical assistance to the National Improvement Partnership Network (NIPN), the existing national network of improvement partnership States; (2) helping an additional 20 States develop sustainable, State-level improvement partnerships; and (3) evaluating the implementation, efficiency, and impact of the improvement partnership model and national network.

The national evaluation will use quantitative and qualitative methods to:

- Describe what model these States implemented and how they implemented it, with particular focus on the use of a collaborative framework of State agencies, providers, stakeholders, payers, and parents.
- Determine the extent to which the project achieved intended effects and complemented activities pursued under other grant categories.

Learn More

For additional information about the 18 States' demonstration activities and the design and methods of the national evaluation, visit the evaluation's Web page at <http://www.ahrq.gov/chipra/demoeval>.

References:

Ireys, H., Foster, L., Christensen, A., et al. Design Plan for the National Evaluation of the CHIPRA Quality Demonstration Grant Program. Executive Summary. (Prepared by Mathematica Policy Research, Inc., under contract no. HHS A29020090002191). AHRQ Publication No. 12-MP064. Rockville, MD: Agency for Healthcare Research and Quality; July 2012.