**SUPPORTING STATEMENT**

**Part B**

***Barriers to Meaningful Use in Medicaid***

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Agency for Healthcare Research and Quality (AHRQ)

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# B. Collections of Information Employing Statistical Methods

## 1. Respondent Universe and Sampling Methods

According to the Health Resources and Services Administration there were approximately 817,000 active physicians, 95,000 nurse practitioners, 40,000 physician assistants, and 8,000 certified nurse midwives in the United States in 2000 (the most recent year for which these data are available). According to the Bureau of Labor Statistics, there are approximately 142,000 dentists in the United States in 2007. This represents a total population of approximately 1.2 million professionals. Of this universe of professionals, this study is interested in obtaining a convenience sample of the subset of professionals that may be eligible for the Medicaid Electronic Health Record (EHR) Incentive Program. A detailed description of the sampling strategy is included below.

Focus group participants will be recruited through a system of purposive sampling. Purposive sampling derives its power from the researchers’ understanding of the purpose of the study. We will select participants based on their ability to address the topic of interest (Burns and Grove, 2005).

In order to find and select participants who are able to address the topic of interest, the project will obtain lists of potential EPs. The project will first search online for lists of CHCs, RHCs, and providers in available Medicaid directories, for health centers and private practices that contain providers who serve a high volume of Medicaid patients and therefore would be most likely to be eligible for the Medicaid EHR Incentive Program. To supplement the list gathered from online searches, the project will contact one or more entities in each State from which focus group participants would be recruited, to request lists of providers who fall within our guidelines for eligible focus group participants. These entities may include State medical societies; State chapters of associations of family practitioners, pediatricians, nurse midwives, and dentists; health center associations; Medicaid managed care organizations; Regional Extension Centers; and State Medicaid agencies themselves. This information will be used to provide a list of potential EPs from which a research agency, contracted to provide recruiting and focus group facility services for this project, can recruit focus group participants.

These lists of providers may be combined with a list of potentially eligible participants, if any, from the research agency’s pre-existing database of willing focus group participants. Additionally, where lists of providers who serve a high volume of Medicaid patients are not available, the project will create lists from providers who respond to an announcement about the study in newsletters sent by their professional association or medical society to which they belong (Attachment I).

This study will screen, via the screening questionnaire (Attachment B), approximately 340 professionals to recruit the 99 focus group participants necessary to complete the study. The typical rule of thumb for determining the appropriate number of groups to conduct is 3 to5 groups for research studies (Krueger, 1994). The decision to select 9 groups of users was to ensure that we have enough coverage to take into account the wide variation in types and functionality of EHRs being implemented across practice sites. Nine groups will ensure that we have enough input from the range of participants to draw reasonable conclusions. We selected 6 groups of non-users because we will not have the variation in EHR type and functionality to discuss and 6 groups is adequate to gather input from the provider types and practice sites. The potential participants will include physicians; dentists; certified nurse-midwives; nurse practitioners; and physician assistants (however, among physician assistants, only those who are the lead clinicians in the community health centers (CHCs) or rural health clinics (RHCs) in which they work and thus eligible for the incentive program). The screening will ensure that participants meet minimum Medicaid patient volumes or, for professionals working in CHCs or RHCs, minimum volumes of “needy individuals” calculated as a percentage of encounters. The participants may or may not have experience with EHRs and may practice in an urban, suburban, or rural location. For each focus group, the project will seek even representation of individuals whose primary place of practice is a CHC, RHC, or private practice, with the exception of focus group number 5, which will include only dentists in private practice. Dentists who practice in CHCs or RHCs will be recruited to participate in all other groups.

For the convenience of the participating EPs, in-person focus groups will be used in urban or suburban locations, and virtual focus groups (held by conference call) will be used in rural locations and with EPs who are non-users and likely more difficult to recruit, based on experience in our pilot test.

From these 340 potentially eligible professionals, a purposive sample of 71 to 99 will be selected to participate in the focus groups. ***Table 1*** shows the proposed design of each focus group and ***Table 2*** shows the proposed distribution of participants in each focus group.

**Table 1: Focus Group Design**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Focus Group** | **EHR Experience Status** | **Geographic Location** | **In-Person/****Virtual Focus Group** | **Maximum Number of Participants** |
| 1 | EHR Experience | Urban/suburban | In-Person | 10 |
| 2 | EHR Experience | Urban/suburban | In-Person | 10 |
| 3 | EHR Experience | Urban/suburban | In-Person | 10 |
| 4 | EHR Experience | Urban/suburban | In-Person | 10 |
| 5 | EHR Experience | All areas | Virtual | 9 |
| 6 | EHR Experience | Rural | Virtual | 5 |
| 7 | EHR Experience | Rural | Virtual | 5 |
| 8 | EHR Experience | Rural | Virtual | 5 |
| 9 | EHR Experience | Rural | Virtual | 5 |
| 10 | No EHR Experience | All areas | Virtual | 5 |
| 11 | No EHR Experience | All areas | Virtual | 5 |
| 12 | No EHR Experience | All areas | Virtual | 5 |
| 13 | No EHR Experience | All areas | Virtual | 5 |
| 14 | No EHR Experience | All areas | Virtual | 5 |
| 15 | No EHR Experience | All areas | Virtual  | 5 |

**Table 2: Focus Group Composition**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Focus Group Number** | **Pediatricians** | **Adult MDs** | **DDS** | **NPs, CNMs, PAs-CHC/RHC only** | **Total** |
| With EHR Experience | 1 | 2-3 | 2-3 | 0-1 | 2-3 | 7-10 |
| 2 | 2-3 | 2-3 | 0-1 | 2-3 | 7-10 |
| 3 | 2-3 | 2-3 | 0-1 | 2-3 | 7-10 |
| 4 | 2-3 | 2-3 | 0-1 | 2-3 | 7-10 |
| 5 | 0 | 0 | 7-9 | 0 | 7-9 |
| 6 | 1-2 | 1 | 1 | 1 | 4-5 |
| 7 | 1 | 1-2 | 1 | 1 | 4-5 |
| 8 | 1 | 1 | 1-2 | 1 | 4-5 |
| 9 | 1 | 1 | 1 | 1-2 | 4-5 |
| No EHR Experience | 10 | 1-2 | 1 | 1 | 1 | 4-5 |
| 11 | 1 | 1-2 | 1 | 1 | 4-5 |
| 12 | 1 | 1 | 1-2 | 1 | 4-5 |
| 13 | 1 | 1 | 1 | 1-2 | 4-5 |
| 14 | 1-2 | 1 | 1 | 1 | 4-5 |
| 15 | 1 | 1-2 | 1 | 1 | 4-5 |
|  | Total | 18-25 | 18-25 | 17-25 | 18-24 | 71-99 |

MDs = Physicians, DDS = Dentists, NPs = Nurse Practitioners, CNMs = Certified Nurse Midwives, PAs = Physician Assistants

Four States have been selected as locations from which focus group participants will be recruited: California, Louisiana, New York, and Tennessee. These States were selected based on the following criteria: percentage of the total population enrolled in Medicaid, the presence of health center-controlled networks, and the opportunity to conduct focus groups with urban or rural providers. These criteria will help ensure that an adequate number of potential participants are available in each State.

## 2. Information Collection Procedures

AHRQ has carefully considered various approaches to collecting and analyzing data for this project, and recommends that focus groups be used. This approach is feasible, cost-efficient, and will provide the most useful information to AHRQ, CMS, and other stakeholders within the necessary timeframe.

The information gathered in the focus groups will be used to develop recommendations for technical assistance for Medicaid agencies and the providers they support. This information may also be used by the Centers for Medicare & Medicaid Service (CMS) as a small part of their development of the final rules for Stages 2 and 3 of the EHR incentive programs. The other sources of information used by CMS include, but are not limited to, the comments provided to the CMS on the Notice of Proposed Rule Making titled “Medicare and Medicaid Programs; EHR Incentive Program;” comments provided to the Health IT Policy Committee; informal feedback from the Regional Extension Centers, who will also be working with eligible providers; and the blog hosted by the Office of the National Coordinator (ONC).

Focus groups have been found to be useful tools for determining needs, as a planning process, for program evaluation, and in research (Lockyer et al., 1998). Through the focus group process, the researcher can gather data about feelings and opinions on a subject, problem, or experience and expectations held by interviewees about the subject or program. Through the group process, participants can develop a critical level of intensity and sharing that ultimately leads the members of the focus group to build upon and expand on each other’s ideas and comments, a process that is not possible when using the individual interview (Gelula & Sandlow, 1998). In addition, focus groups often raise unexpected topics that might never come up using more structured methods. Moderators have the opportunity to probe participants for more detail, personal stories, or unexpected topics to get additional information on the point being made within a focus group (Hargrave et al., 2010). The insights reported directly from providers who are working with EHRs on a day-to-day basis will be a critical source for solutions and approaches to address barriers to meaningful use. For the main data collection activity, we propose a set of 15 focus groups, reaching a total of 71-99 total EPs.

The project will contract with local or regional focus group research agencies in the locations selected for focus group sessions. These agencies will provide logistical support for recruiting focus group participants and they will provide facilities in each location. To recruit participants, an agency staff member will call and review the participant screener questionnaire with the potential participant (Attachment B). Once the individual has agreed to participate, the agency will mail a confirmation letter providing logistical information, including the date and time of the focus group and directions (Attachment J) and a fact sheet detailing the project activities (Attachment K).

Dr. Linda Dimitropoulos of RTI International will serve as the focus group moderator. She will be assisted by Dr. Patricia MacTaggart, of the George Washington University School of Public Health and a staff member from the West Virginia Medical Institute (WVMI). Together, these staff provide expertise in moderating focus groups, understanding of EHR implementation, and knowledge of Medicaid programs. One of the team members will serve as a note-taker and will record the conversation. The note taker will identify important points in the conversation. Audio and/or video tapes will supplement the hand-written recording of the focus group activities.

The primary data collection instrument is the moderator’s guide (Attachments C-E). This will be a semi-structured interview guide. It will provide the moderator with standard introductions to help the participants become comfortable with each other; it will re-assert human subjects’ protections and encourage participants not to disclose to third parties any of the particulars of the conversation; and it will allow the moderator to pose a consistent set of questions across all focus group sessions, while permitting the moderator to probe for detail on items that may arise during specific sessions. The structure of the moderator’s guide will begin with general topics and then steadily seek more specific detail. The guide will provide definitions of technical terms and transition statements for a smooth flow of the focus group discussion.

Some questions for practitioners with EHR experience and those with no EHR experience will be identical, especially with regard to the effect of incentive programs on EHR adoption/implementation/use; factors that facilitate meaningful use; and technical assistance. Additionally, questions about how practitioners perceive the benefits and drawbacks of EHRs will be similar. Moderator’s guides for both types of groups will include prompts to explore whether there are different experiences based on type of practitioner. However, practitioners with EHR experience will receive questions on their use of specific EHR functions and period of transition to EHRs that will not be relevant to practitioners without EHR experience. On the other hand, practitioners without EHR experience will receive questions about their reasons for not getting an EHR that would not be relevant to practitioners already using an EHR.

 The moderator’s guide also includes prompts to elicit any differences in responses from practitioners in private practice as compared with those in CHCs or RHCs; or between practitioners with different levels of licensure. To help ensure that our word choice is consistent with the terminology used by practitioners, a scan of the current literature on the use of health information technologies in medical practice was used.

To help ensure that the project’s moderator’s guide is complete and comprehensive, a draft was presented to the Technical Expert Panel (TEP). The TEP, which included representatives from AHRQ, CMS, ONC and HRSA, provided critical feedback on core content of the moderator’s guide and assisted in refining content and phrasing of questions to ensure that the moderator’s guide is appropriately designed to elicit the desired information.

## 3. Methods to Maximize Response Rates

The critical factors in ensuring a high level of participation are to schedule the focus groups within 2 weeks of obtaining the participant’s agreement to participate and to provide adequate information about the logistics for participation. Project information packets will be mailed to the 99 eligible participants who met the criteria for participation during the screening process and who agree to participate. These packets will include the following:

* A confirmation letter confirming their assignment to a focus group, a description of the topics for discussion, and the focus group’s time and location (Attachment J).
* A fact sheet summarizing the purpose of the focus groups and the ways information collected will be used (Attachment K).

The packet is intended to maximize actual participation rates by demonstrating Federal support, focusing the interest and attention of potential respondents by explaining the project, as well as providing information about the gift offered for participation and instructions for getting to the facility and other logistics. In addition, the focus group facility will place reminder calls 24 hours before the scheduled meeting to answer last minute questions and to remind the participants of their commitment.

## 4. Tests of Procedures

The project pretested the screening questionnaire and the focus group moderator’s guide with a convenience sample of eight EPs and one administrator affiliated with a CHC or RHC. The pretest included informant interviews with two private practice EPs; an in-person focus group of staff from CHCs or RHCs; and a virtual focus group with private practice EPs. This process strengthened the data collection instruments before use in the main study; minor changes to the documents were made following the pretest. A pretest with nine individuals was adequate for the purpose of this study because all subjects were commenting on the same set of data collection instruments.

The purpose of the pretest was to ensure that the moderator’s guide and other data collection instruments are comprehensive and that the form of questions and the word choices used will generate meaningful dialogue. Following the pretest, a report was prepared, which summarizes the data collected and recommended revisions for the questions, definitions, or probes that informants found problematic (see Attachment L). In addition, the report identifies subject matter that was initially overlooked and summarizes substantive findings from the pretest focus group interviews. After the review and approval of the TEP, the information from the report was used to finalize the data collection instruments. All changes to the instruments will be submitted to RTI’s IRB for approval.

## 5. Statistical Consultants

Individuals who have participated in designing the data collection:

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We also acknowledge the contributions of Sean Hogan, who has since left RTI.

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