SUPPORTING STATEMENT

Part B

Health IT Community Tracking Study 2009
AHRQ Project No.: 290-05-0007-03

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Agency of Healthcare Research and Quality (AHRQ)

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B. Collections of Information Employing Statistical Methods

1. Respondent Universe and Sampling Methods

This proposed research will use a purposive sample, therefore study findings cannot be statistically generalized to the respondent universe. However, the lessons learned from this qualitative research will inform strategies to promote the adoption and effective use of e-prescribing being developed by AHRQ and other Department of Health and Human Services agencies, including the Centers for Medicare and Medicaid Services (CMS) and the Office of the National Coordinator for Health IT, as well as state and local governments and private health care organizations.

The key units of observation for the proposed qualitative study are physician practices that send prescriptions directly from their e-prescribing system to pharmacies electronically and pharmacies that receive prescriptions electronically from physician practices into their computer systems, rather than by fax. Such electronic routing is often referred to as electronic data interchange. AHRQ expects to invite approximately 138 organizations in order to identify 110 organizations willing to participate. These 110 participating organizations will include 24 eligible physician practices and 56 eligible retail and mail order pharmacies and headquarters of pharmacy chains that use e-prescribing systems to send or receive prescriptions electronically as well as 30 other organizations including state pharmacy associations, vendors and e-prescribing experts.

Practices and pharmacies will be selected purposively from among eligible organizations located in the 12 Community Tracking Study (CTS) sites selected to be nationally representative of communities with populations over 200,000: Boston; Cleveland; Greenville, S.C.; Indianapolis; Lansing, Mich.; Little Rock, Ark.; Miami; northern New Jersey; Orange County, Calif.; Phoenix; Seattle; and Syracuse, N.Y. (Center for Studying Health System Change 2007). State e-prescribing regulations vary across the 12 markets as does the relative market shares of different local, regional and national pharmacies.

Eligible physician practices in the CTS communities will be identified from three sources: (1) physician practices identified as having an electronic health record or e-prescribing system in earlier studies conducted by AHRQ's contractor, the Center for Studying Health System Change (HSC) or by current CTS site visit contacts; (2) Surescripts, which has a Web site that identifies the names and addresses of physicians who transmit prescriptions electronically via the Surescripts electronic prescription routing network, which is the largest in the United States; and, (3) other physician practices, pharmacies or pharmacy organizations participating in the study. Physician practices will be selected for the study purposively from among eligible practices to vary in size and specialty.

Eligible pharmacies will be identified from three sources as well: (1) state pharmacy associations, which represent community pharmacists; (2) the Surescripts Web site, which also lists names and addresses of pharmacies participating in the Surescripts network; and (3) other pharmacies and physician practices participating in the study.

Pharmacies will be selected for the study purposively from among eligible pharmacies to vary in size and affiliation with local, regional or national pharmacy companies.

Other pharmacy respondent organizations include mail-order pharmacies, which are typically regional or national; national pharmacy chain headquarters, to learn about company-wide e-prescribing initiatives; and state pharmacy associations, which will provide a market perspective on pharmacy experiences with e-prescribing as well as insights into relevant state regulatory issues. Interviews with representatives of vendor organizations will inform the study by providing a more technical understanding of the systems and databases being described by physician practices and pharmacies. Interviews with e-prescribing experts will provide overall expertise and contextual understanding of the study topics.

Exhibit 5 identifies the individual respondent types within each type of organization and outlines the total numbers of individual respondent interviews and respondent organizations in each category. These two totals will not be equal because, within each physician practice, two interviews will be conducted: one with the medical director or physician-user best able to describe practice processes for e-prescribing, who will provide a clinical perspective, and a second with an IT administrator or office manager, who can provide a technical and operational perspective. While there will be some overlap in terms of the broad open-ended questions asked of these two types of respondents, substantially different information will be collected from each. In each of the other organizations, only one respondent will be interviewed. In retail and mail-order pharmacies, the pharmacist-in-charge, who may also be the owner in small pharmacies, will be interviewed. In the other respondent organizations, the individual most familiar with e-prescribing will be interviewed.

Exhibit 5. Target Respondent Organizations and Individual Respondent Types

Organization Type	Number of Organizations	Individual Respondent Types	Number of Respondent Interviews
PHYSICIAN PRACTICES	24		**48**
Physician practices	24 (2 per CTS site)	IT Administrator or Office Manager	24
		Medical Director or Physician User	24
PHARMACY RESPONDENTS	**68**		**68**
Retail pharmacies	48 (4 per CTS site)	Pharmacist-In-Charge	48
Mail order pharmacies and pharmacy chain headquarters	8 (National/regional)	Pharmacist-In-Charge or representative most knowledgeable about e-prescribing	8
State pharmacy associations	12 (1 per CTS site)	Representative most knowledgeable about e-prescribing	12
VENDORS	14		**14**
Pharmacy IT vendors	2 (National)	Representative most knowledgeable about e-prescribing	2
Physician e-prescribing system vendors	6 (National)	Representative most knowledgeable about e-prescribing	6

E-prescribing connectivity and content vendors	6 (National)	Representative most knowledgeable about e-prescribing	6
E-PRESCRIBING EXPERTS	**4**		**4**
Other	4 (National/regional)	Medical informaticist, director of health plan e-prescribing initiative or other	4
PROJECT TOTAL	**110**		**134**

2. Information Collection Procedures

Participant Recruitment. Participants will be recruited either by phone, e-mail, or fax depending on availability of the participant's contact information. Attachments C, D and E are sample invitation letters for physician practices, pharmacies and all other organization types, respectively. The purpose of the communication is to explain the study, confirm that the organization is eligible to participate in the case of physician practices and pharmacies, gain respondents' agreement to participate and schedule the interviews. Each respondent who agrees to participate in the study will receive a written confirmation of the interview date and time by e-mail or fax (see Attachment F).

Interviews. In-depth interviews will be conducted by two-person teams, which will be comprised of a lead interviewer and a note taker. Respondents will be reminded of the focus of the study and the way their information will be used. The interviews will follow semi-structured protocols. Eight protocols tailored to different respondent types have been developed (see Attachments B1- B8). These protocols cover the following topics: background information on the organization; background information on relevant IT systems (physician, pharmacy and vendor interviews); implementation and use of selected e-prescribing features; the impact of e-prescribing on physician prescribing behavior and practice and pharmacy operations; and the impact of policy initiatives on e-prescribing implementation and use.

Interview notes will be typed and assigned initial codes by the note taker and reviewed for accuracy by the lead interviewer. Interview notes will be then be stored and coded using Atlas.ti (version 5.0) qualitative data analysis software.

Thank-you letters are routinely sent by mail (see Attachment G).

3. Methods to Maximize Response Rates

Respondent organizations are not being selected via probability-based sampling methods. A "response rate" has no clear meaning in the context of a qualitative study.

Based on outside consultations, recruiting is likely to be more difficult for retail pharmacists employed in chain stores. The strategy for identifying eligible pharmacies includes contacting the state pharmacy associations and local pharmacy schools to identify respondents who are interested in participating in the study. Every effort will be made to schedule interviews with these respondents at times most convenient for them.

4. Tests of Procedures

The interview protocols were reviewed by the project's consultant, Terri L. Warholak, Ph.D., R.Ph., Clinical Assistant Professor, College of Pharmacy, University of Arizona. Dr. Warholak, a pharmacist, has substantial experience developing and fielding interview protocols, focus group discussion guides, and surveys for pharmacists and physicians on e-prescribing and other topics.

Interview protocols for physician practices and other respondent types were drawn from questions developed for previous studies on e-prescribing and ambulatory electronic health records and modified to reflect this study's focus on particular e-prescribing features that have previously not been explored in depth. Because AHRQ has not identified any qualitative studies on pharmacies' experiences with e-prescribing, the pharmacy protocol was cognitively tested with two individuals, including a pharmacist and a pharmacy school student with retail pharmacy experience with e-prescribing.

5. Statistical Consultants

Because this study is qualitative, no statistical consultants were contacted.

AHRQ's contractor, HSC, will be responsible for overseeing the recruitment of participants, conducting all of the interviews, and analyzing and reporting the findings. The principal investigator and project director is Joy M. Grossman, Ph.D. She can be reached by phone at 202-484-3298 or by email at jgrossman@hschange.org.

6. Analysis Plan

On a rolling basis over the course of the project, the project team will review interview notes and meet regularly to discuss the study's key findings. Using an iterative process, the team will identify new themes as they emerge, explore and shape already identified themes in greater depth, and ensure that saturation in the data collection is reached. The interview data will be coded using the "integrated" approach described by Bradley et al. (2007). This approach combines the inductive development of codes from the data—the "grounded theory" approach (Glaser and Strauss 1967)—with a preliminary deductive "start list" of codes, which provides an initial organizing framework based on the existing literature (Miles and Huberman 1994). Atlas.ti software (Version 5.0) will be used to store, code and search the interview data for analysis. Data reduction will be achieved by summarizing coded interview data from Atlas.ti in data tables, which will then be analyzed to refine themes, weight the evidence supporting each finding, and identify respondent disagreements and disconfirming evidence.

REFERENCES

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