

SUPPORTING STATEMENT

Part B

Pilot Test Proposed Pharmacy Survey on Patient Safety Culture

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Agency for Healthcare Research and Quality (AHRQ)

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B. STATISTICAL METHODS

1. Potential Respondent Universe and Sample Selection Method

A sampling frame of potential pharmacy sites will be developed in consultation with AHRQ staff and representatives from important pharmacy stakeholder organizations and major pharmaceutical chains as well as many of the pharmacy experts we consulted while conducting background interviews—see Attachment G for a list of those consulted both within and outside the Agency. These persons will provide points of contact in pharmacy chains and independent pharmacies who might be willing to participate.

Pilot Study Sample

The purposes of the overall sample design are two-fold: 1) to obtain enough pilot data at the pharmacy site level and individual respondent level to allow for sufficient N to examine the multilevel psychometric properties of the pilot data, and 2) to include pharmacies in the pilot test that vary on important pharmacy characteristics that exist in the pharmacy population: a) pharmacy type (drugstore chains, independents, supermarkets, and mass merchant stores); b) size (small—only 2 pharmacists, medium— 3 - 4 pharmacists and large—5+ pharmacists); as well as a general distribution by c) geographic region (northern, southern, eastern, and western regions of the United States).

Table 1 displays the sample design which proposes that data be collected from 60 pharmacies—15 from each of the four types of pharmacies. The purpose of including pharmacies of various types is not to compare survey results across the types, but rather to ensure that there is some representativeness of pharmacies by type in the pilot test since the final survey will be made available in the public domain for use by various types of community/retail pharmacies. Purposive sampling will be used to select the pilot test pharmacies to ensure adequate variability on the specific pharmacy characteristics given the small number of pharmacies included in the pilot study.

A minimum of 40 sites is needed for multilevel analysis at the site level, but we are proposing to collect data from 60 sites to ensure that there are enough data at the individual respondent level given the small number of pharmacists in each site. As shown in Table 1, we assume a ratio of 3 nonpharmacist staff per pharmacist (so a 2-pharmacist pharmacy will have 6 nonpharmacist staff). Further efforts will be made to obtain pharmacies distributed across geographic region (northern, southern, eastern, and western regions of the United States). During recruitment, pharmacy points-of-contact will be instructed to provide sites that vary in patient safety culture by selecting sites they believe to be excellent as well as those that are poor and average.

All pharmacists and nonpharmacist staff within each pharmacy will be surveyed. It is estimated that a total of approximately 784 individuals will be surveyed for the pilot test (about 196 pharmacists and 588 nonpharmacist staff). With a targeted response rate of 80%, the expected number of completed surveys is 627 (157 pharmacists and 470 nonpharmacist staff) (see Table 2).

Our definition of a pharmacy is a single physical location in which its staff use the same physical space. While pharmacy chains and systems may consist of multiple locations or sites, we would consider each location to be a separate pharmacy.

Cognitive Interview Participants

Cognitive interview participants will be selected from about 20 pharmacies that will vary by pharmacy type, size and geographic location. We will use participant recruitment methods similar to those used for the other SOPS surveys, such as advertising via Westat's intranet and sending flyers to potential participants that Westat employees identified around the country, and distributing flyers in local pharmacies. Pharmacies with less than 2 pharmacists will not be included because solo pharmacist pharmacies have so few staff that it is problematic from a practical standpoint to administer a confidential survey as a pharmacy-level assessment of patient safety culture. For the cognitive interviews one staff member from each pharmacy will be selected to be interviewed. No special selection procedures will be used to select this person however we will insure that half (10) are pharmacists and half are non-pharmacist staff. For the pretest all pharmacy personnel will complete the Pharmacy Survey on Patient Safety. The Pharmacy Background Questionnaire will be completed by the manager at each of the pretest pharmacies.

Table 1. Pharmacy Site Recruitment Table

Numbers of Pharmacies by Type													GRAND TOTAL
Traditional Chain Drugstore			Independent			Supermarket			Mass Market				
Small 2 RPhs per small store	Med 3 RPhs per med store	Large 7 RPhs per large store	Small 2 RPhs per small store	Med 3 RPhs per med store	Large 7 RPhs per large store	Small 2 RPhs per small store	Med 3 RPhs per med store	Large 7 RPhs per large store	Small 2 RPhs per small store	Med 3 RPhs per med store	Large 7 RPhs per large store	Number Of Pharmac ies	
8	4	3	8	4	3	8	4	3	8	4	3		60
TOTAL TRADITIONAL DRUGSTORE CHAINS			TOTAL INDEPENDENTS			TOTAL SUPERMARKETS			TOTAL MASS MARKET			GRAND TOTAL SITES	
15			15			15			15			60	

Number of pharmacies to be recruited

Table 2. Individual N Recruitment Table

Individual N by Type of Pharmacy													GRAND TOTAL
Traditional Chain Drugstore			Independent			Supermarket			Mass Market				
Small 2 RPhs per small store	Med 3 RPhs per med store	Large 7 RPhs per large store	Small 2 RPhs per small store	Med 3 RPhs per med store	Large 7 RPhs per large store	Small 2 RPhs per small store	Med 3 RPhs per med store	Large 7 RPhs per large store	Small 2 RPhs per small store	Med 3 RPhs per med store	Large 7 RPhs per large store	Indiv N	
16	12	21	16	12	21	16	12	21	16	12	21		196
48	36	63	48	36	63	48	36	63	48	36	63	588	
64	48	84	64	48	84	64	48	84	64	48	84	784	
TOTAL TRADITIONAL DRUGSTORE CHAINS			TOTAL INDEPENDENTS			TOTAL SUPERMARKETS			TOTAL MASS MARKET			GRAND TOTAL N	
196			196			196			196			784	

Number of pharmacists of staff Total N

2. Information Collection Procedures

A purposive sample of 10 pharmacists, 8 pharmacy technicians, and 2 pharmacy clerks/cashiers will be recruited to complete telephone cognitive interviews to further refine the survey's items and composites/dimensions.

The pilot survey data collection will include these steps:

- Mailing the pharmacy surveys (which include a cover letter) to the pharmacy point of contact
- Pharmacy point of contact personally distributes survey packets to each pharmacist and non-pharmacist staff member
- A reminder notice distributed to nonrespondents
- Distribution of a second questionnaire to nonrespondents

3. Methods to Maximize Response Rate

We are using site-level remuneration as noted in #9 in Supporting Statement Part A, and we are following up with a reminder notice and second questionnaire to nonrespondents.

4. Tests of Procedures

The procedures for this specific project have not been subjected to testing. However, the contractor, Westat, has conducted many similar projects and is using well established research methods with this project.

5. Statistical Consultation and Independent Review

Input from statistical analysts was used to develop the study design and plans for data analysis, including:

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