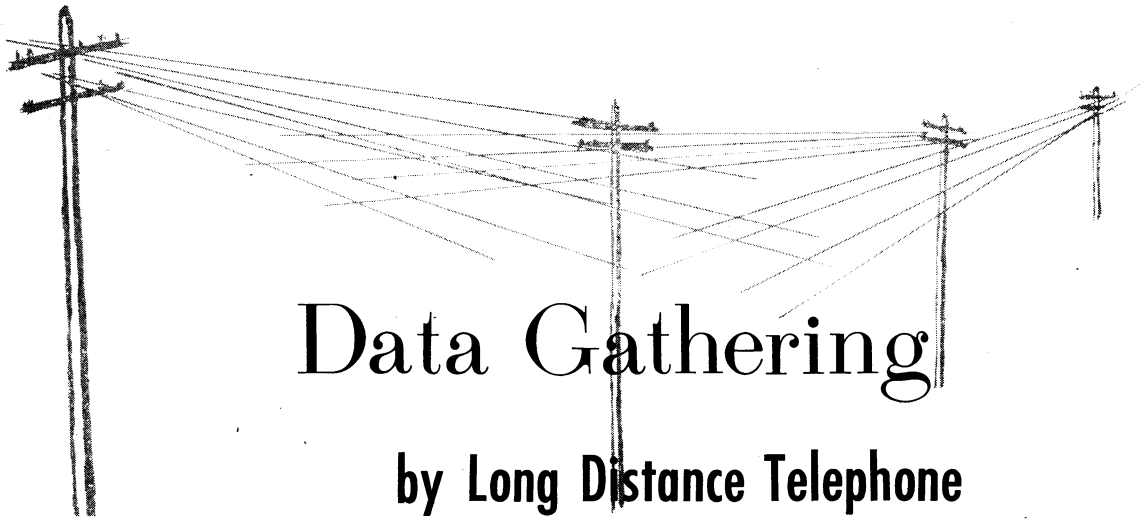

Data Gathering by Long Distance Telephone

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A RESEARCH technique relieving many of the headaches in ordinary data gathering was developed during a recent study by the Hospital Research and Educational Trust. Questionnaires were mailed to a widely scattered group of people who were then interviewed by long-distance telephone. The method proved efficient and effective, and at the same time relatively inexpensive.

The research undertaken was an administrative study of hospital planning and license laws, and the field to be covered was both broad and deep. We were concerned with the administration of the following separate but related State programs in 52 States and Territories: hospital survey and construction (Hill-Burton), hospital licensing, and nursing home licensing. While in some States the three programs were integrated under a single administration, the problems were nonetheless distinct from one program to another. Variation from State to State existed in every phase of the operations—in the legal structure, in the organization, and even in the philosophy underlying the programs. Our objective was to analyze the programs all the way from the enabling legislation to the question of "where do we go from here"; to describe existing conditions and to make recommendations for the future.

As a first step toward acquainting ourselves with the existing programs, our staff members visited seven States in the summer and fall of 1956. We talked with two groups—State officials concerned with the administration of the programs and nongovernmental persons representative of those affected by the programs. Interviews were based on 6 questionnaires containing up to 125 questions. These questions covered the following:

- The law.
- The regulations written under the law, making it more specific.
- The philosophy of the agency: whether its

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approach is educational or purely regulatory, or a combination of the two.

- The organization and staffing of the agency.
- The operational procedures used in the program.

The information from these visits was invaluable. But their greatest value, perhaps, lay in what they proved we could not do. We found that it would be impossible to draw justifiable conclusions from a sampling of a few "typical" States because of the variations from State to State. There are no typical States. Ideally, we should interview individuals from every State before attempting to prescribe for future action.

Conventional Survey Techniques

The ideal method of gathering the type of information we sought would have been face-to-face interviews with large numbers of persons. Unfortunately, we faced a shortage of the two elements essential for this method: time and money. It is not necessary to belabor these points; most researchers will readily recognize that it would be impossible for a staff of four to visit within a few months several hundred people scattered in various towns and cities in every State. If we could have divided the country into four areas with one staff member covering each, our purpose would not have been accomplished, since our staff members had different specialties and each of them had to interview people in every State. Also, the cost would have been prohibitive on our limited budget. There are, moreover, the inevitable delays caused by difficulties in transportation, missed appointments, and other unpredictable obstacles.

If sampling would not suffice, and face-to-face interviews on a nationwide basis were impossible, would a direct-mail questionnaire produce the desired results? The direct-mail questionnaire is the least expensive and often most efficient method of conducting a survey. The disadvantages, however, are well documented in research literature. Misinterpretation of the questions often leads to inaccurate replies. In addition, written comment is sometimes difficult to classify. An interviewer, on the other hand, can often discover patterns in comment and thereby categorize the replies. About 60 percent response is the maximum expectation from this type of research. It is also far less effective than skillful interviewing for obtaining thoughtful comments in reply to open-end questions.

A questionnaire to solicit information about 52 dissimilar State and Territorial administrations would have to be both general and minutely detailed. Consequently, it would be so lengthy as to be enthusiastically ignored by most respondents.

Since our survey had to include questions requiring thoughtful comment as well as the "yes-no" and "how many" type of question, direct mail would have been a highly inadequate method of obtaining results.

But even more important was the fact that only a limited number of individuals in each State were sufficiently familiar with the programs to give us the information sought. Almost 100 percent response from every State was necessary for our survey to be comprehensive.

Thus an alternative method had to be devised—one that would cover the ground more adequately than either the sampling method or the direct-mail questionnaire, and at the same time cost less in time and money than face-to-face interviews on a nationwide basis.

Long-Distance Telephone Survey

The long-distance telephone call seemed to be the compromise we needed—a means of communication only slightly less direct than face-to-face interviewing and far less expensive. Actually, on analysis of survey results, we found the technique had many positive advantages of its own, but at the start we regarded it as a compromise.

We consulted the telephone company concerning arrangements for the undertaking and were given the following suggestions:

- Installation of special long-distance wires in order to avoid overloading the office switchboard. (There was a slight charge for these lines, but they more than proved their worth in time saved.)
- Use of a special "hands-free" set, consisting of a loud speaker and a microphone. A conventional receiver could be used, but it was

also possible to talk and listen without picking up the receiver. Thus, the interviewer's hands were free for taking notes and handling papers. This device was especially advantageous to us. Many respondents were familiar with more than one of the State programs and made comments pertinent to the work of more than one of our specialists. With the hands-free set, more than one specialist could listen in on the interview.

• Supplying the telephone company with a weekly list of names and addresses of the individuals scheduled for calls, an arrangement called "sequence calling."

The next task was to prepare six separate questionnaires: one each for the Hill-Burton, hospital licensing, and nursing home licensing programs to be answered by government agency people, and another set for nongovernmental people. In an effort to devise questionnaires which would be practical in long-distance calls, we edited, shortened, and combined questions from the detailed surveys made during our visits to the seven States. The final drafts contained from 15 to 24 items each. Every effort was made to write as lucidly and specifically as if the questions were to be answered by mail.

These questions were designed to obtain information on the law, regulations, and philosophy of the program, and on the organization, staffing, and operational procedures of the agency. The basic purpose of the survey was to help us identify the persistent problems in the operation of these programs, for it was on these problems that we planned to concentrate our attention. Hence there were virtually no strictly informational questions included in these questionnaires—no "nose count" on "how many States follow what practice."

The questions, particularly those for the nongovernmental people, were principally opinion-type. These we regarded as basic questions: Did they think the Hill-Burton planning in their State had been well tailored to the needs of the State? What services did they think the State Hill-Burton agency should perform for Hill-Burton hospitals? For other hospitals? How thorough were the inspections of hospitals and nursing homes in the State? Were they thorough enough to insure compliance with minimum standards?

In addition, we included a group of multiple-choice questions on both the present and the ideal program. Such questions covered the role of the advisory council, status of the educational program in the State, techniques for putting the State's Hill-Burton plan into effect, how much "toughness" should be used by the State agency in enforcing minimum operational standards, and others. These questions would tell us not only how much agreement there was on present practices, but whether the governmental and nongovernmental people could conscientiously work toward the same goals.

Before selecting nongovernmental persons to be interviewed, we consulted many State hospital and nursing home associations as to which people in their respective States were most familiar with the programs. The list included representatives of medical, hospital, religious, nursing, and nursing home associations, and, in a few instances, of allied fields such as dentistry and architecture. A high percentage were serving or had at one time served on an advisory council to a State program.

Mimeographed copies of the questionnaires were mailed to these individuals with covering letters explaining our plans and informing the recipients that we expected to telephone during a specified week. The mailing was staggered so that the letters arrived about a week before the call was made. This gave the individuals time to think about the questions and make some preparation for answering, but not time enough to file them away and forget them.

In making up the weekly list for the telephone company, calls were scheduled according to normal working hours in the various time zones. The number of calls planned per day was kept low enough to allow for adequate discussion time and for "writing-up" time following the call.

As each call went through, the operator asked the following type of question. "Are you ready to talk with Mr. Fry of the American Hospital Association about the questionnaire?" If the respondent said "No," she would then try to set up a specified time for the interview. There was no charge for this service.

The respondent followed his own copy of the questionnaire while the interviewer noted the

answers and comments on a duplicate copy. When answers seemed unclear, when it seemed that the respondent did not quite understand the question, or when the question asked did not fit the situation in that State, time was taken for thorough discussion. In some cases this resulted in a change of answer. For example, a few of the questions involved multiple choices representing varying degrees of opinion. After some discussion the respondent might decide that choice "c" was a closer approximation of his true opinion than his original choice of "b."

As each interview ended, the interviewer took time to write up or dictate his notes. These notes were then typed into the questionnaire itself, on pages facing the actual questions. Thus, we obtained a detailed record of the opinions expressed. However, no record was kept in any case where the respondent requested that he not be quoted.

We considered recording the conversations, but decided against it because of the time required to play them back completely, the distracting "beep" that punctures recorded conversation, and the inhibitions that would have precluded frankness from many people.

Using 2 "hands-free" sets in separate offices and sitting in on one another's calls as necessary, our 3 interviewers talked with 281 persons in 48 States and the District of Columbia, gathering responses to 567 questionnaires, in approximately 8 weeks. About 2 percent could not be located or declined to be interviewed.

The total cost of the calls to all the States came to $4,703.17—just under $100 per State, or about $17 per individual interviewed. Of the total amount, $17.05 was the charge for installation, $133.76 the basic cost of the 2 special lines and the 2 speaker phones, and $4,552.36 the charges for the calls including taxes.

Advantages

For this type of research, the advantages of the telephone technique over a direct-mail questionnaire are the same as those gained through the face-to-face interview: the almost total response, the accuracy and depth of the response, and the clarification which facilitates classification. In addition, the telephone interview overcomes one disadvantage of the face-to-face interview: the great expenditure of time and money.

We estimated that for the total of $4,703.17, in the 8 weeks spent in telephoning, we would have been able to visit in person only 10 western States, or about 80 individual respondents. (And this figure does not include the considerably greater payroll expenditure which the longer time span would have entailed.) The cost per person in this event would have been $80, as compared with the $17 actually spent.

Other more subtle advantages of this technique became apparent as we proceeded.

The telephone interviews were far more concentrated and free from both interruption and digression than the usual personal interview, since the awareness of the cost of long-distance telephoning exerted some pressure in this direction on both interviewer and respondent. (In no instance was the conversation interrupted by a phone call!)

Respondents had, for the most part, made more preparation in advance for answering the questions by telephone than is usually made in anticipation of a personal visit. In a number of cases respondents had even held conferences with other staff members or colleagues concerning the questionnaires.

The time between the first and last calls of the survey was less than probably would have elapsed from beginning to end of a direct-mail survey. (We used direct-mail questionnaires on some other phases of our study, and replies dribbled in for months.) The concentration of study on the part of the researchers into a shorter span of time contributes to more uniform evaluation of data, since it lessens the tendency to shift emphasis during the progress of the study.

Respondents' Reaction

The idea of indulging in such long telephone conversations for research purposes is unusual enough to be startling to the persons called. There was, in fact, some slight criticism of the generous outlay of funds in this manner. Although it was easily answered, the researcher who intends to employ this technique would be well advised to avoid such criticism by offering in advance a straightforward explanation of

the method, together with cost comparisons. This is particularly true if the individuals to be interviewed have a stake in the project and feel that they have a right to an opinion regarding expenditure.

In our case, however, the telephone technique was heartily endorsed by our respondents almost unanimously. The interview required less of their time than a personal visit, yet the lengthy long-distance call emphasized the value of their opinions to the study. There was some comment to the effect that respondents' own interest in the subject had been intensified by the conversation, and that they welcomed the opportunity to evaluate and review the programs.

Conditions for Use

The technique obviously has it own positive values which under certain conditions make it preferable to any other. It may well be the method of choice for other studies under the following circumstances:

- A budget large enough to permit more exhaustive research than would be possible through a direct-mail questionnaire.
- Neither time nor money sufficient to permit visiting each respondent personally.
- Widely scattered geographic distribution of the persons to be interviewed.
- Great variation and complexity of questions, making written replies inadequate.
- The impossibility of making valid conclusions without an extremely high percentage of responses.

The long-distance telephone survey is suggested to supplement, not to supplant, other methods of gathering data. Many research projects will still be forced to rely on the mails as the most economical method. Others will require a rapport obtainable only by personal visit; "depth interviews," so popular at present, can hardly be held over the telephone. It is still impossible, and will be until telephones include built-in television, to pick up the shades of meaning implicit in the twinkle of an eye or the shrug of the shoulders unless you are facing your respondent.

But if your budget is sufficient, your time limited, your scope large, and your questions complex, it would be well for you to consider using the telephone as a research tool.

Days of Limited Activity Due to Disability

The total number of days which the American people stayed home from work, stayed in bed, or otherwise restricted their activities because of illness or injury has been estimated at 662,800,000 for July through September 1957, in a report issued by the U. S. National Health Survey of the Public Health Service. The report, which is the fourth in a series based on household interviewing, projects the rate of that quarter for the entire year to give an average of 16 days per person.

As of August 1957, the report estimates that about 17 million persons, or 10 percent of the population, had chronic conditions limiting their activities. Women and girls averaged 17.5 days of limited activity per year, compared with 14.1 for males. Children under 5 years of age averaged 6.4 days a year of restricted activity, while people 65 years and over averaged 44.4 days. The average time lost from work was estimated at 7.9 days for each employed person.