

The Use of a Household Survey in the Community Assessment Process

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One of the tenets of community-based primary care is that to be successful you must engage the community to determine its actual versus perceived needs. One comprehensive way to do this is through a survey, although, as many researchers know, the results of the survey are only as good as the breadth and depth of the collected data, and collecting data on personal issues in a reserved culture presents a particular challenge. This article looks at a unique community assessment method used by the Gegharkunik/Providence partners to meet this challenge, and provides some initial results.

Background

The Armenian side of the Gegharkunik/Providence partnership is comprised of the government of the Gegharkunik Marz (state) and two polyclinics—one for adults and one for children—located in the city of Sevan, adjacent to the famous, beautiful Lake Sevan. The American partners include two hospital systems—Care New England and Lifespan Health Systems—along with a broad array of community partners. The objectives of the partnership are to:

- improve the organization of primary care services in the Sevan area;
 - develop a staff training program in the polyclinics;
 - introduce sound management techniques in clinic operations; and
 - improve financial management.
- To prioritize the interventions needed

to improve the health of the community, the partners decided to conduct a community assessment. During subsequent discussions on how to best administer such an assessment, the idea of a household survey conducted by visiting nurses was proposed and developed. Because both the adult and pediatric polyclinics emphasize home visits by nurses as part of their normal care routine, this seemed a natural vehicle for conducting interviews.

The Survey Instrument and Sample

To ensure that the survey was conducted in a scientific manner, the American University of Armenia (AUA) Center for Health Services Research (CHSR) agreed to train the surveyors, oversee the management of the survey, and provide the initial analysis. After development by David Gagnon, US partnership coordinator, the survey instrument was translated, refined, and formatted by the staff of AUA. Both groups then submitted the survey methodology to their respective Institutional Review Boards for approval of a study involving human subjects and, when approval was received, the AUA staff began training the nurse surveyors in Sevan.

During the initial training, however, it became apparent that the nurses were reluctant to ask questions that might prove sensitive. Recognizing that this would compromise the survey results, the interview process was changed to a two-part format. The first part focuses on demographic questions and is administered by the nurses, while the second part focuses

on questions more personal in nature and is self-administered in written format by the respondent. The nurses were then introduced to the revised version and its methodology, which included a pre-testing of the new survey. Results of the pre-test show that the hybrid nurse-administered/self-administered survey was much more successful than its predecessor, and that the nurses and respondents were much more comfortable with this approach. This methodology addressed almost all of the nurses' concerns and virtually eliminated the sources of potential bias connected with them.

To assure an appropriate representative sample, the study used a multistage cluster sample, probability-proportional-to-size, cross-sectional survey designed in both an interview and self-administered format. The inclusion criteria targeted all women 18 or older, with an emphasis on mothers with children younger than 10 years of age. The survey team used registration lists for children born in 1996-1998 in lieu of other sources of population demographics; because population demographics are so poorly maintained, available lists are not appropriate for population-based sampling. Household clusters were identified in each district and homes were randomly selected so that every seventh household in a cluster participated in the survey in any given district. A total of 750 households participated with only a 4.9 percent refusal rate. The nurses obtained the consent of the women questioned and administered the demographic part of the survey; the remainder was self-administered. Only 15—or two percent—of the self-administered surveys were returned incomplete. The mean age of the women responding was 38, with a standard deviation of 12.3 years and an age range of 18-85.

The main language of the survey was Armenian; however, if requested, a Russian format was available. Thus, Armenian, Russian, and mixed (Armenian nurse-administered and Russian self-administered) surveys were generated.

The final instrument covered: key demographic and sociocultural factors, such as family structure, living conditions, employment, and income; and family quality of life issues, such as the health status of family members, their satisfaction with their health, health behavior, nutrition, childbearing and caring for young children, the mental health and depression of the respondents, their access to medical care and to early diagnosis and prevention services, reproductive health, dental care, and safety, including public, private, domestic violence, etc.

It is well known that asking people questions regarding personal and family life should involve a consideration of ethical issues. For this reason, before the start of each interview, respondents were provided with a consent form that contained general information about the logistics and goals of the survey as well as contact information. The consent form also explained the respondents' rights—including the right to refuse to answer a question—and addressed issues of confidentiality. The assurance of confidentiality was reinforced by the nurses who told all of the respondents that their answers would be kept in strict confidence and that upon completion of the self-administered section of the survey they should seal it in the envelope provided. We believe this contributed to the sincerity of the responses and the number of women who completed the questionnaire.

The Data

The 11 nurse-surveyors, working with two

local coordinators, began interviewing women in the chosen households on June 20, 2000, and continued for eight days. To ensure that each interview was conducted in a similar manner, the CHSR staff had

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observed each nurse at least 5 times during the first and second pre-testing phases and twice during the implementation phase. Completed surveys were periodically delivered to CHSR and the data collection phase passed smoothly and without noticeable problems.

Although the analysis is ongoing and quite extensive, there are many results that may be highlighted to show the survey's success in assessing community needs. In addition the survey provides a baseline for future evaluation.

When respondents were asked to rate their health, 40.9 percent said it was fair and 29.4 percent indicated it as poor. The most common chronic conditions were high blood pressure—36.5 percent said they had it while 8.5 percent suspected they did—and cardiac disease, which 28 percent cited as present and 10.6 percent as suspected. Gastrointestinal problems were quite prevalent: 26.2 percent said they had it while 7.4 percent suspected it. As might be expected, some 40.9 percent of the women were dissatisfied with their overall health. In terms of health behavior,

surprisingly few women smoked. Only 6.8 percent had ever smoked cigarettes, while 90 percent agreed that smoking was harmful. With 100 as the highest possible score, the mean knowledge score of respondents of childbearing/child-rearing age was a low 52.3. For example, the knowledge score of women on care of respiratory diseases was 47.4 and on elements of child-bearing, 23.6. Knowledge and use of health prevention measures such as contraceptives, pap smears, and mammograms was also low. Finally, women expressed anxiety over their physical well-being in public settings with only 47.7 percent of the respondents agreeing to the statement that they could count on the police to help them if they were in need.

As a result of the survey, both those partner teams focusing on improving health promotion and prevention and those focusing on primary care are now able to target specific interventions for specific problem areas. And overall the partnership is now concentrating on improving the health of women, because women are the mainstay of the family.

While the research should come as no surprise to health professionals in the community, what it does do is suggest the dimensions of the problems facing most of the population in Armenia. The survey is readily adaptable to other partnerships in Armenia or other NIS countries, and replication of the household survey in a number of partnerships could result in baseline studies on a "crosswalk" across partnerships for future evaluation initiatives.

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