



COOPERATIVE EXTENSION

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Volunteer and Non-Medical Personnel Involvement In a Community-Based Clinic

Procedures and Recommendations

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In Summer 2002, the University of Nevada Cooperative Extension (UNCE) contracted with the Environmental Protection Agency (EPA) to recruit participants for a study on the long-term health effects of chronic exposure to arsenic in drinking water. The resulting clinic, to collect data from Churchill County residents, is the largest of its kind ever conducted in the United States. The clinic was designed for targeted residents who were 45-years old, or older, and who had lived in Churchill County 20 years or more. A follow-up study conducted by UNCE is discussed in this fact sheet. [These](#) results may be of interest to others who conduct targeted clinics and who wish to increase the participation by the targeted groups. This fact sheet will report on recruitment techniques, clinic procedures and the follow-up survey. It will also serve to inform Churchill County residents about the answers they provided to survey questions.

How Participants Were Recruited

Nevada GOLD (a UNCE volunteer groundwater protection group based in Fallon, NV) assisted Cooperative Extension in recruiting 1000 adults for the study. Through newspaper, radio and newsletter spots, study information was provided to Churchill County residents. Those meeting the criteria for involvement were asked to contact the Cooperative Extension Office, or a local Nevada Gold volunteer

Nevada Gold team members also set up recruiting booths outside local businesses and during special events throughout the county. After participants agreed to the study, their names were given to a scheduler who called to reserve a clinic appointment and again explain the study process.

The Clinic

Upon arriving at the scheduled lab visit, participants were asked to review and sign the EPA Informed Consent Form, after a consultation with an EPA representative. Once signed, the participant then proceeded through the data collection process. This involved measuring weight, height, blood pressure; urine specimen; blood draw; toenail clipping; questionnaire completion; and smell test. Participants were escorted from one station to the next. Approximately one-third of the participants were asked to provide buccal cells (scrapings from inside the cheeks). Participants returned to the lab the following day to bring in a first morning urine sample. All participants not getting their drinking water through the municipal water supply system were asked to provide a tap water sample. Each participant received \$25.00 at the conclusion of the study. The study ran from August 2 through September 7, 2002.

The EPA collected data from 907 participants. Data results are expected to be available in approximately 12 months. According to an EPA spokesperson, they are still awaiting completion of urine analysis. Budget cuts at EPA created the delay in processing samples. When sample analysis is complete, EPA will inform individual study participants of their results and return to Fallon to meet with interested study participants.

The Follow-up Survey

At the completion of the study, a survey was sent to all study participants for the purpose of ascertaining how the study process was received by those involved. Because UNCE had a crucial role in recruiting efforts, this survey was also designed to evaluate their role in the recruitment efforts, as well as provide assistance to others should a future similar study be warranted. The survey was mailed to participants, followed by a telephone call wherein the participant had the option of providing the survey answers via telephone. While a small percentage returned the survey by mail, the vast majority gave their answers over the phone. The total return rate for the survey was approximately 72%. The survey comprised three main topics – (1) recruitment, (2) lab processes and (3) “after the study.”

1. Recruitment

Questions about recruitment centered on how participants learned about the study, and why they participated. Multiple answers were possible for each question. Of those who responded, 84% indicated they learned of the study via newspaper coverage. Prior to, and during the study, promotional ads, including a barometer reflecting participant numbers, ran in the local “Lahontan Valley News.” These ads outlined who could participate, the amount of compensation, and posed the question “What are the *real* health effects of arsenic in our drinking water?”

Because Nevada GOLD volunteers assisted as recruiters, their name and contact information was included in the study publicity. Graphics included a picture of Nevada GOLD volunteers undergoing lab

tests. Because of this team's crucial role in recruiting efforts, survey respondents indicated that over 70% learned of the study from a Nevada GOLD team member. The team set up recruiting booths at local businesses, the Farmer's Market, and the Cantaloupe Festival and Country Fair. In addition, 39% of respondents indicated that they learned of the study from radio spots. Friends and word-of-mouth were also listed as methods of information. The recruitment efforts were very successful, not only reflected in the number who participated, but also by the fact that 50% of those who completed surveys felt they were well-informed about the study process even before arrival at the lab.

Another way to measure recruitment effectiveness was to ask participants “why they volunteered for the study”. Almost 100% (99.3%) of those who were surveyed stated that the reason for their participation was that they wanted to help the community. While 87% indicated that they were worried about their personal health, reasons for participating also included concern over the health of their family and friends.



2. Lab Processes

Only 6% of the participants indicated they would change anything within the lab process. Of the concerns indicated, however, many could have been addressed if the question had been posed during the lab process allowing lab personnel to respond. For example, one question was “Why won't fingernail clippings work just as well as toenail clippings?” Other questions asked were “Why did they need two urine samples?” and “Why the age limit?”

While between four and six participants were scheduled each hour, 11% stated they had to wait longer in the waiting room than expected. However, when asked if the appointment time was convenient, 97% stated that it was.

3. After the Study

As a follow-up to this study, EPA personnel have stated that once data analysis is complete, they will return to Churchill County to share the findings. At that time, participants may attend a community town hall meeting as well as have the option to attend an individual consulting session with EPA personnel. Over 94% said they would attend the community meeting. When asked if there was anything that could assure their attendance, 32% said yes. Of those who said yes, 50% indicated that either having more advance notice, or a personal reminder notice, would increase their attendance. Almost 70% indicated they wanted an individual consulting session. Those not wishing one indicated that both the individual reports and community meeting, and subsequent reporting, would yield the necessary information.

In May, 2003, participants received a letter from the EPA that reported on the data analysis that was currently available; arsenic water analysis, glycated hemoglobin, blood pressure, pulse and pulse oximetry and the odor identification test. In June, 2003 an EPA representative returned to Churchill County to answer any questions that participants had regarding these initial findings.

Two final survey questions asked respondents if their opinions of the EPA and UNCE had changed after their participation in the study. Of those who responded, 10% said their opinions had changed regarding the EPA. The majority of those indicated that their opinion was now more favorable. With regard to UNCE, 7% of the respondents indicated that their attitude had changed favorably and were pleased that UNCE had participated in this study. When asked if their opinion had changed with regard to arsenic in drinking water, 92% of those who responded said no.

In October 2001, the EPA revised the standard for arsenic levels in drinking water from 50 parts per

billion (ppb), to 10 ppb by 2006. As a result of the lowered arsenic standards for potable water, the City of Fallon will install a new water treatment plant to remove arsenic from its municipal system. The new treatment plant is expected to be operational in the spring of 2004. At that time, Fallon will meet the 10ppb standard. These standards, however, do not apply to domestic, private water wells.



Nevada Gold team members and EPA personnel thank Churchill County for their participation in the study.

Summary

The question remains “What are the *real* health effects of arsenic in our drinking water?” Because of the generous participation of Churchill County residents, EPA personnel collected data that may provide the pathway to finding the answer. Once analysis is complete, EPA personnel will return to Churchill County to share the results. These results will help determine if further studies should be conducted.

Further Implications

The process used by EPA and UNCE to conduct this large clinic may be of interest to others conducting clinics of all kinds in their communities. Use of non-medical volunteers in the recruitment process seem to have contributed greatly to the success of both the clinic day and the long-term impressions of individuals involved in the study.

Medical personnel have a specific role with the patients in the clinic. Non-medical personnel and volunteer involvement in clinics such as this help provide an additional dimension that may help enhance long-term and follow-up studies.

Additional information, contact the Churchill County Cooperative Extension at (775) 423-5121. Readers should also visit the EPA website located at <http://www.epa.gov/safewater/dwhealth.html> for information on water quality and drinking water standards.

For further reading:

Castelloe, P. and Prokpoy, J. (2001) **Recruiting Participants for Community Practice Interventions: Merging Community Practice Theory and Social Movement Theory.** Journal of Community Practice. Volume 9, No.2, 31-48

El Ansari, W. and Phillips, C.J. (2001) **Interprofessional Collaboration: A Stakeholder Approach to Evaluation of Voluntary Participation in Community Partnerships.** Journal of Interprofessional Care. Volume 15, No.14, 351-368

Hodiak, D.L. and Ryan, J.S. (2001). Hidden Assets: Revolutionize your Development Program with a Volunteer-Driven Approach. San Francisco: Jossey-Bass

Minkler, M., and Wallersterin, N. (Eds). (2003). Community based participatory research for health. San Francisco: Jossey-Bass