TITLE: Creating treatment decision making materials for well water contaminated with arsenic, nitrate or lead

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STUDENT SUBMISSION: No

TOPIC/TARGET AUDIENCE: This study uses an expanded library of treatment decision making materials to help reduce health disparities related to environmental contaminants in rural Jackson County, Oregon. Ideal target audience are program developers and policy makers.

ABSTRACT: Approximately 34 million Americans rely on private wells for drinking water, which are excluded from the Safe Drinking Water Act. This is a public health concern because toxic chemicals such as arsenic, nitrate and lead are frequently detected in drinking water in private wells at concentrations that exceed this act's maximum contaminant levels. Exposure to toxics increase the risk of several chronic diseases. Currently there are no comprehensive treatment decision-making materials available. We used qualitative research methods to develop risk communication messages to increase well water testing. We collected available materials and drafted a set of materials with an overview of exposures, health effects, prevention tips, and best treatment options for arsenic, nitrate, and lead. These materials were reviewed by local environmental health experts for scientific accuracy. We conducted product testing in focus groups in both English and Spanish. Participants were asked to evaluate our three guides for clarity, thoroughness of information and ease of understanding. Changes requested by the English-language focus groups were to highlight health effects pertaining to adults. Changes requested by the Spanish-language focus groups were to include pictures of Hispanic/Latinx families. This work has the potential to significantly increase domestic well water quality, safety and remediation.

OBJECTIVE(S): To define water contaminants arsenic, nitrate and lead. To define maximum concentration levels for arsenic, nitrate and lead. To describe different treatment options based on contaminants found in well water. To identify barriers private well water users face with treatment uptake. To discuss culturally relevant messaging