Inspiring Earthquake-Resistant Construction in the Kathmandu Valley, Nepal

Dr. Anne M. Sanquini

A 20-minute documentary film was created to accelerate the rate at which Nepali communities retrofit or rebuild their local public school buildings to be life-safe in the event of a major earthquake. It features local Nepalis as role models who have already strengthened their schools, and is based on the theory of communicating actionable risk, diffusion of innovation theory, and social cognitive theory. Public schools in Kathmandu Valley with buildings in need of seismic work were assessed for eligibility in the study. Of these, 16 were selected and matched into 8 pairs based on seismic condition of the buildings. One school in each pair was randomly assigned to see the intervention film and the other to see an attention placebo control film on an unrelated topic. Pre and post observations were recorded from 761 adult participants, using a questionnaire created for this purpose. Comparisons between the two groups of schools were made with the school as the unit of analysis. When compared to the control schools, the schools whose community members saw the retrofit intervention film statistically significantly increased their: 1) knowledge of specific actions to take in support of earthquake-resistant construction, 2) belief in the feasibility of making buildings earthquake-resistant, 3) willingness to support seismic strengthening of the local school building, and 4) likelihood to recommend to others that they build earthquake-resistant homes. This outcome suggests that employing a film featuring community members who have already taken the desired action increases factors that may accelerate adoption of risk reduction actions by others who are similar to them.

Biography

Dr. Anne M. Sanquini recently received her Ph.D. from the Department of Geological Sciences, School of Earth, Energy and Environmental Sciences, Stanford University, and is in process of establishing a consulting practice in disaster science. She holds an M.S. in Geology (2010) from San Jose State University and a B.A. in Mass Communications (1975) from the University of Minnesota. In-between earning these degrees, she worked ~30 years in high tech marketing and general management. Before entering the doctoral program at Stanford, Anne supported paleoseismic studies at the Earthquake Science Center of the U.S. Geological Survey, Menlo Park. She has been in the Kathmandu Valley, Nepal five times over the past three years as part of her doctoral research study, and was there with her team during the magnitude 7.8 earthquake of April 25, 2015.