The re-infestation of rural houses by T. infestans in the Gran Chaco region (Argentina) represents a significant public health problem. Between 2008 and 2009, the social, economic, health and environmental factors involved in the relation between the environment and the human population were investigated, using an EcoHealth approach. The questions about human behavior that guided the research concerned the cultural, in particular the ethnic elements, the micro and macro mechanisms at household, community and regional levels that affected the re-infestation process and the community resources available to control and monitor T. infestans. Quantitative and qualitative techniques were used, i.e. interviews, participatory workshops, standardized questionnaires and focus groups. Data collection coordinated with interventions in the biophysical environment. The methodology was participatory in nature, involving researchers, members of the community and local decision makers. The main results highlight the economic, educational and health differences among the ethnic groups, i.e. Creoles, Indians and “gringos” or people with European background, associated with different levels of domiciliary re-infestation. Findings indicate the importance of the ecohealth approach to implement ideas of participation and transdisciplinarity. Finally, the macro and micro factors that influence the re-infestation process are outlined.

Keywords
Ethnicity, Chagas disease, housing re-infestation, ecohealth, participation.