lic health decisions, by providing thought-provoking analysis of the implications for future health communication policy and practice

**Results:** In order to create a credible scientific discourse, certain patterns that are still ingrained in the health organizations must be overcome: (1) homogeneous executive committees; (2) public health experts versus "people with agendas"; (3) from certainty to uncertainty; (4) the preference for consensus; (5) conflicts of interest; (6) facts/rationality v. emotions/myths; and (7) the medicalization of public health.

**Conclusion:** In the digital age, organizations can deconstruct what Foucault called the field of knowledge/power by using the different narratives of diverse publics to create a more balanced democratic system that also has creative flexibility. For that to happen, the establishment must change its mode of thinking in its scientific discourse, while at the same time building digital and communication systems that use crowdsourcing to solve scientific problems, and involving and including the public in the discourse in the public sphere. These steps can contribute to a different risk management approach for epidemic crises, bringing organizations closer to their metaphorical potential of embracing the public sphere.

# https://doi.org/10.1016/j.ijid.2018.11.319

#### 21.119

#### The four R's: a community engagement framework for disease preparedness research in Sierra Leone

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**Purpose:** Building trust and engaging the community were core components of the 2015 EBOVAC and 2018 PREVAC Ebola vaccine trials in Sierra Leone. Thus, it recruited a community liaison team (CLT) to engage with the community through public meetings, radio chat shows and other activities, and a social science team (SST) to assess community members' and participants' perceptions of the trial. Both teams provided regular updates the clinical team to adapt procedures.

This study sought to understand barriers and facilitators to community engagement around biomedical research. Specifically, it aimed to determine the viability of rolling out the EBOVAC and PREVAC trials' model in other disease preparedness programmes.

**Methods & Materials:** A field study was conducted to assess the model's implementation in these trials during following the Ebola outbreak. EBOVAC and PREVAC team members attended 15 in-depth interviews, community members and local leaders attend 3 focus group discussions (FGDs) to discuss the Ebola epidemic, the current trials and community engagement activities.

**Results:** Based on initial findings, four main principles characterized the community engagement model used in the Ebola vaccine trials: reciprocal, relatable, relational and respectful.

The trial incorporated two separate teams to ensure **reciprocal** communication between the trial and the community. The CLT delivered key messages from the trial, whilst the SST completed ethnographic research in the field to uncover trial rumours and perceptions in the community. These findings were brought back to the CLT and incorporated into targeted messaging. Trial workers approached the communities as equals by dressing modestly, speaking local dialects, and using **relatable** examples. Appreciation and understanding of the importance of interpersonal **relationships** and **respect** for the people, their customs and traditions also played a large role in the success of the community engagement programme.

**Conclusion:** These findings could provide a community engagement framework for other programmes occurring in "peace time" (disease preparedness) or during a disease outbreak. The framework should be tested in other settings where such interventions are ongoing, to ascertain whether these principles remain consistent across settings and diseases. If this is the case, this framework could be incorporated into international guidelines on community engagement.

## https://doi.org/10.1016/j.ijid.2018.11.320

### 21.120

## Socioeconomic factors predict the increase of incidence rates of visceral leishmaniasis in higly endemic areas in Brazil

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**Purpose:** To evaluate the association between socioeconomic factors and the changes in the incidence of visceral leishmaniasis (VL) in highly endemic areas in Brazil.

**Methods & Materials:** Among the 2,136 Brazilian municipalities with at least one VL case from 2001 to 2013, we selected those 480 with an average of  $\geq 1$  VL case/year. VL cases for each municipality were obtained from the Brazilian System for Notifiable Diseases. Socioeconomic and demographic variables were obtained from the Brazilian Census (2010) and included income inequality (Gini index), % population living in rural areas, % population <5 years of age, % households with access to water supply, sewerage system, electric light, and garbage collection. Information on the annual coverage of the implementation of euthanasia of VL infected dogs was obtained from the Brazilian VL Control Programme (2005–2012). The outcome is the VL incidence rates from 2006 to 2013. Associations between variables were evaluated using a multivariate multilevel Poisson regression. Associations were expressed as incidence rate ratios and 95% confidence intervals.

**Results:** A total of 23,638 VL cases were registered in the 480 municipalities from 2006 to 2013. Results indicated an annual decrease in the incidence rates by 3% (p < 0.001), with significant variations in trends among the municipalities. For every increase in 0.1 points in the Gini index, the annual VL incidence rates decreased by 48% (p < 0.001). For every increase in 1% in the households with access to water supply plus sewerage system and electric light, the VL rates decreased by 2% (p = 0.044 and p = 0.034, respectively). For every increase in 1% of the rural population and of the population <5 years of age, the VL rates increased by 0.8% and 17%, respectively (p = 0.005 and p = <0.001). The implementation of euthanasia of infected dogs in a particular year was associated with an increase in 9% in the VL incidence in the following year, reflecting the widely accepted knowledge that control measures are usually implemented after VL cases identification.

**Conclusion:** Efforts for decreasing income inequality and providing essential urban services might be effective strategies for controlling the spread of VL in urban areas.

#### https://doi.org/10.1016/j.ijid.2018.11.321

