

## Review of: "Expanding Participatory Epidemiology to Explore Community Perceptions of Human and Livestock Diseases among Pastoralists in Turkana County, Kenya"

Aniruddha Belsare<sup>1</sup>

1 Auburn University

Potential competing interests: No potential competing interests to declare.

Griffith et al. discuss the use of Participatory epidemiology in a pastoralist community of Turkana County (Kenya) to assess their knowledge of disease epidemiology, understand disease priorities (how they prioritize disease management?) and establish links between human and livestock diseases. This is an interesting approach for investigating an important and relevant topic, but there are several methodological flaws in this paper.

First and foremost, some of the key terms used in this paper are not clearly defined, confounding data analysis thereby resulting in flawed interpretation of the results. For instance, throughout the manuscript, the authors use three categories of diseases: livestock diseases, zoonotic diseases and human diseases. But there is a clear overlap between this categoriesthis (livestock/zoonotic/human diseases). By definition, all zoonotic diseases are human diseases. Similarly, diseases like anthrax, brucellosis, rabies, Rift Valley fever, trypanosomiasis, etc. cannot be classified just as zoonotic or livestock diseases-they fall in both categories. So what purpose does this classification serve? This flaw confounds much of the discussions in the paper. Then, they have listed parasitosis as a disease! There is no disease called parasitosis. I assume the authors are using the term parasitosis in lieu of parasitic infection, but still it is not a disease. Similarly, the authors wrongly refer to diarrhea, worms, coughing and edema as diseases (e.g., Figure 3).

There are several other terms that have been used wrongly/loosely in this paper. One example is the indicators like prevalence, mortality and morbidity. There is no clarity about the meaning of these terms in the context of this paper: what is percieved prevalence? (See under 'Perceptions of disease importance and epidemiology). How did the authors explain these indicators to the participants? What was the percevied denominator for these indicators? The same applies for mortality rates - these indices are calculated mathematically, not 'percevied'. Such methodological issues make the results and the conclusions questionable.

The authors refer to this study as cross-sectional (under Study design and sample). I recommend that the authors reconsider this description - what makes this study cross-sectional? How does field-testing the interview guide ensure reliability of the data gathering process? The authors state that 'Each county was randomly selected..' - Please elaborate the process of randomization in your methods section.

Finally, in many places in the manuscript, the authors have used fillers - sentences that have no relevance to the topic being investigated. All the discussion about One Health is just word play - there is hardly any One Health component in



this study other than asking questions about human and animal diseases.

'Standard PE methodology falls into four categories: informal interviews, ranking and scoring, observations, and validation workshops (Catley et al., 2012). "Participation" in PE can be conceptualized and implemented in various ways, ranging from passive involvement to active self-mobilization. In self-mobilization, the highest level of engagement, participants actively initiate contact with external institutions to acquire necessary resources and technical advice, while maintaining control over resource allocation and usage.'

The underlined part quoted above and Table 1 is another example of a filler. Also see the paragraph about Trypanosomiasis in the Discussion section.

Much of the discussions are unsupported: e.g. 'Participants in our study exhibited substantial epidemiological understanding, including the spatial and temporal prevalence of diseases (for instance, urban versus rural settings and during wet versus dry seasons) and disease etiology.'

I beg to differ with the authors - the study does not break new grounds by showcasing the participatory epidemiology approach, nor does it have a One Health component. The methodology is problematic, and the conclusions presented in this paper are questionable.