

Exploring co-production of responses to infectious disease threats with(in) Nepali communities

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Background

Co-production between researchers, service providers, and affected communities is an old concept renewed by current efforts to decolonise academia, reduce exploitative practices, and ensure its relevance. Working for change with and within communities is central to healthcare improvement, but engaging with communities – what people know, feel, do, and what they would like to change – remains challenging for disease control professionals. Co-production helps ensure communities have some control over the design and implementation of any intervention, greater ownership of processes and outcomes, and, theoretically, some capacity to hold intervention providers to account.

Aims and objectives

This work contributes to a PhD examining community awareness of zoonotic disease in Nepal and aimed to identify potential and existing mitigatory activities in communities to address anthropogenic drivers of zoonotic disease spread.

Specific objectives:

- Examine community knowledge of risk factors, prevention, and treatment for common zoonotic diseases in selected rural and urban sites in Nepal
- Identify existing and potential mitigatory activities, including barriers and enablers to the effective implementation of these activities
- Work with community members, policymakers, and human and animal healthcare personnel to identify what would foster community engagement and co-production of mitigatory activities in Nepal

Methodology

- Qualitative, multi-method design: in-depth interviews, focus group discussions, photovoice, unstructured observations
- Participants from six communities in rural and urban Nepal, including one informal settlement
- Policymaker and healthcare professionals mostly based in Kathmandu and other larger settlements
- Reflective thematic analysis through a critical realist lens to work with transcripts, photographs and observations

Thematic analysis

Thematic analysis in progress at home. Generating and refining initial themes from the data.



Participants

- 39 individual participants (18 F/21 M) and focus group discussions in six urban/rural communities
- 10 participants took photos illustrating their understanding of zoonotic and infectious disease (photovoice)
- 20 policymakers/professionals representing animal or human healthcare: 6 animal health (3 F/3 M) and 14 human health (1 F/13 M)

Findings

Community participants stated that they were keen to learn about zoonotic diseases: what these are, how they can be transmitted, and what they can do in mitigation to prevent their spread among their friends, families and communities.

We found that community participants, despite strong opinions and desire to participate in disease control interventions, had only been offered recipientship, with little or no attempts by intervention organisers to engage them in design, implementation, evaluation, or accountability. Participants highlighted the significance of working in 'local' languages, respecting religio-cultural realities, relating initiatives to lived experience, and ensuring that local leaders and influencers such as community groups, village heads, community health volunteers, and traditional medicine practitioners are involved.

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Photographs taken by participants exemplified the key importance of context: cultural and religious factors, socio-economic factors, financial factors.



Corpse disposal, Mustang

Animal corpses are thrown into this water course between the main road and a cultivated field, irrespective of how the animal died (e.g., poison, animal killed by feral dog, diseased domestic animal etc).

Trap, informal settlement, Kathmandu

This glue trap was made by a participant in a shop in an informal settlement. It is made of lentils, glue and a piece of flat, round metal. Previously she used a standard trap, but the rats are so big they were able to drag themselves (and the trap) out of the shop.



Rodent-damaged water bottle, Chitwan

One participant who runs a small roadside shop took a photograph of a water bottle from his stock that had been chewed and destroyed by a rodent. Despite the negative effect on his income, he stated that he did not kill rodents due to his religious beliefs: 'We haven't applied any measures. We worship Lord Shiva and do not believe in killing rats.'

Policymakers and healthcare professionals formed a tight circle, with close links between animal and human healthcare staff in Kathmandu in particular – everyone knew everyone. These connections provide a strong network that could be leveraged to work with(in) communities in the future.

Conclusions

Using local languages, respecting local cultures, listening to viewpoints, involving local leaders (religious leaders, traditional medicine practitioners, village heads, community health workers), working with or through existing programmes are all factors that could make programmes more effective.

Engaging with socio-cultures, beliefs, and practices at community level is essential to reducing emerging zoonotic disease incidence. Meaningful co-production requires recognising communities – through legitimate leadership/representation – as the experts and equal partners who can 'work alongside' at all stages of any initiative.

Engagement between health professionals and communities, tailoring programmes to work with local priorities and co-developing effective solutions addressing drivers of zoonotic disease, is a positive step toward achieving a workable solution to potential disease spread.

Our finding that participants had never been engaged in programmes or research underlines the fact that much more needs to be done within global public health practice to achieve effective public health interventions.

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