

LETTERS

CONSIDERING THE COMPLEXITY IN HIV/AIDS AND THE ENVIRONMENT

The recent article by Talman et al.¹ brings to light the intersection between the health of people, their livelihoods, and the environment in which they live. The framework provides considerable insight into the effect of environmental change on people living with HIV/AIDS, and vice versa. Talman et al. show that the links between HIV/AIDS and the environment require both further study and improved interventions to address this syndemic.

As we move toward a joint understanding of HIV/AIDS and the environment, we need to fully appreciate not only the complexity of the human dimensions of HIV/AIDS and the range of ways people interact with the environment, but also the complexity of the environment itself. For example, the Lake Victoria ecosystem, noted for its eutrophication, pollution, and deforestation, has further experienced introductions of nonnative species,² a tremendous number of extinctions of native cichlid species,³ changing food webs,⁴ and shifting interactions among its fish species.⁵ The dimensions of ecosystems and the effects of changes that ripple through them are as complex and multifaceted as those of human systems. To truly

understand the ramifications and cyclical nature of this syndemic, we must fully consider the range of factors represented by “global environmental change.”

Furthermore, environments remain as varied as social systems. An environment’s characteristics further affect HIV/AIDS–environment interactions. For example, gender dynamics may impact who interacts with the environment most directly. In many agricultural systems, women do most of the work, whereas in some fisheries only men go out fishing. Time horizons may also differ; hunters may be successful in a short time frame, whereas agriculturalists must invest further ahead to reap a harvest. Temporal, gender, and other dynamics that affect how the environment is used, when, and by whom are likely to further complicate interactions between HIV/AIDS, livelihoods, and the environment.

To continue improving our understanding and response to how HIV/AIDS and the environment interact, we must apply and question a syndemic framework across varied environments while considering the complexity of *both* the human and environmental systems. ■

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TALMAN ET AL. RESPOND

While our work focused primarily on the human health aspect of the syndemic, we heartily agree that increased appreciation of the complexity and nuances of its environmental component is equally important.

It is precisely because of differing disciplinary orientations and perspectives that we encourage strategic cross-disciplinary partnerships and multifaceted approaches to addressing HIV/AIDS–environment issues. Important subtleties regarding the HIV/AIDS–environment dynamic (and indeed, even larger principles undergirding the relationship) may be overlooked when a single perspective or orientation is applied. We hope that a syndemic framework can begin to address these blind spots.

Further study of the complex relationship between HIV/AIDS and the environment and additional integrated interventions to address the syndemic are needed. We agree that to do so demands a broader and more nuanced view, of both the HIV/AIDS epidemic and environmental systems. ■

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