An interdisciplinary approach to reduce leptospirosis in two slum communities in Salvador, Brazil

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One billion people worldwide reside in informal, slum communities, characterized by overcrowding, lack of infrastructure and basic sanitation, and inadequate access to potable water. Slum residents suffer disproportionately from infectious diseases including zoonosis. Leptospirosis, transmitted mainly by rats, is exacerbated by complex structural and tropical climate conditions that affect vulnerable populations. In low-and-middle-income countries, the majority of the slums lack support and action from the local and federal government agencies, in which community organizations fill the gap to address disparities within the current system. Our study aims to develop collaborative maps on a fine geographical scale using objective measures of *Leptospira* transmission risk, such as serological surveys and rodent trapping, which we combine with youths’ assessment of the built and social environment. Perceived risk will be measured using participatory methods, such as Photovoice, to visualize and discuss communities’ perceptions through the use of photography. To improve our spatial distribution of risk, we will integrate objective and perceived risk for human infection and infer relevant factors that were not originally considered. This collaborative effort can improve our assessment of risk through active engagement and dialogue with community members, who will also participate in the decision-making process to inform future local interventions.
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Book of Abstracts
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