A mixed methods approach to assess animal vaccination programmes : the case of rabies control in Bamako, Mali

ID 3749295
Author(s) Mosimann, L.; Traore, A.; Mauti, S.; Léchenne, M.; Obrist, B.; Véron, R.; Hattendorf, J.; Zinsstag, J.
Author(s) at UniBasel Mauti, Stephanie ; Léchenne, Monique ; Obrist van Eeuwijk, Brigit ; Hattendorf, Jan ; Zinsstag, Jakob ;
Year 2017
Title A mixed methods approach to assess animal vaccination programmes : the case of rabies control in Bamako, Mali
Journal Acta tropica
Volume 165
Pages / **Article-Number** 203-215

In the framework of the research network on integrated control of zoonoses in Africa (ICONZ) a dog rabies mass vaccination campaign was carried out in two communes of Bamako (Mali) in September 2014. A mixed method approach, combining quantitative and qualitative tools, was developed to evaluate the effectiveness of the intervention towards optimization for future scale-up. Actions to control rabies occur on one level in households when individuals take the decision to vaccinate their dogs. However, control also depends on provision of vaccination services and community participation at the intermediate level of social resilience. Mixed methods seem necessary as the problem-driven transdisciplinary project includes epidemiological components in addition to social dynamics and cultural, political and institutional issues. Adapting earlier effectiveness models for health intervention to rabies control, we propose a mixed method assessment of individual effectiveness parameters like availability, affordability, accessibility, adequacy or acceptability. Triangulation of quantitative methods (household survey, empirical coverage estimation and spatial analysis) with qualitative findings (participant observation, focus group discussions) facilitate a better understanding of the weight of each effectiveness determinant, and the underlying reasons embedded in the local understandings, cultural practices, and social and political realities of the setting. Using this method, a final effectiveness of 33% for commune Five and 28% for commune Six was estimated, with vaccination coverage of 27% and 20%, respectively. Availability was identified as the most sensitive effectiveness parameter, attributed to lack of information about the campaign.We propose a mixed methods approach to optimize intervention design, using an ”intervention effectiveness optimization cycle” with the aim of maximizing effectiveness. Empirical vaccination coverage estimation is compared to the effectiveness model with its determinants. In addition, qualitative data provide an explanatory framework for deeper insight, validation and interpretation of results which should improve the intervention design while involving all stakeholders and increasing community participation. This work contributes vital information for the optimization and scale-up of future vaccination campaigns in Bamako, Mali. The proposed mixed method, although incompletely applied in this case study, should be applicable to similar rabies interventions targeting elimination in other settings. (C) 2016 Elsevier B.V.

Publisher Elsevier Science Publ.
ISSN/ISBN 0001-706X
edoc-URL http://edoc.unibas.ch/54445/
Full Text on edoc No;

Digital Object Identifier DOI 10.1016/j.actatropica.2016.10.007
PubMed ID http://www.ncbi.nlm.nih.gov/pubmed/27751865
ISI-Number WOS:000390973400024
Document type (ISI) Article