

Integrating Dog Rabies Vaccination Strategies

Panel discussion on joint vaccination focused on Rabies and PPR
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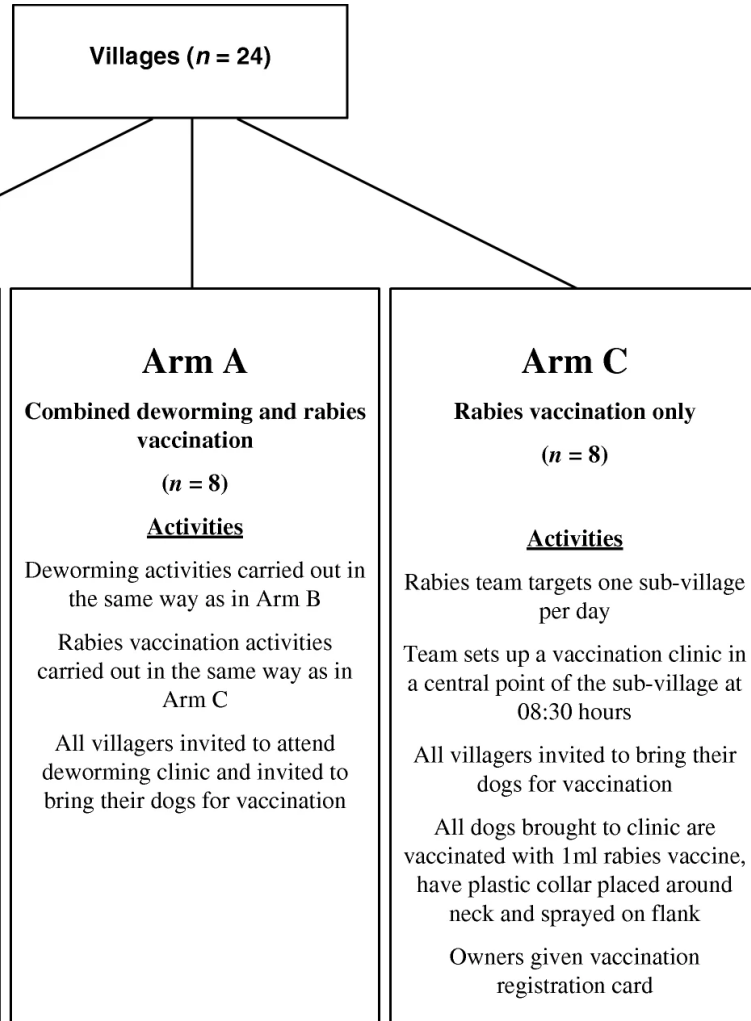
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Outline

- Integration of dog rabies vaccination with other public health interventions
 - Preventive Chemotherapy-Neglected Tropical Diseases (PC-NTDs)
- Integration of dog and livestock health interventions
 - Livestock vaccination campaigns
 - De-worming of dogs (e.g. cerebral coenurosis, echinococcosis)
- Integration for capacity-strengthening

1. Integration with public health interventions: Combining delivery of dog rabies vaccination with soil-transmitted helminth treatment of children



Key findings



- High levels of **community support** with recognition of:
 - The merits of ‘two for one’ health treatments
 - Improved efficiency
 - Savings in costs, effort and time
 - Most people indicated they were more likely to turn up if multiple interventions were offered
- No significant difference in dog vaccination coverage across arms
- Cost savings
 - 33% reduction per deworming dose
 - 16% reduction in cost per dog vaccinated



Photo: Felix Lankester

Qualitative insights: benefits



*That's a good idea [integrated programs] because **we are getting two services at once** and the reasons of these services is to prevent us from [getting] infections. So combining these two events is not a problem because the important thing is **we are getting good health services for our wellbeing**. - Men's FGD participant, Village 1*

*That's the best idea and we are willing to participate because we are getting two health services at the same time. **The important thing here you should differentiate those doctors depending on the programs**, like if he/she distributes worming drugs it's only that and (they are) not mixing things. - Women's FGD participant, Village 6*

Combined livestock and childhood vaccination in remote pastoral communities in Chad

- Vaccination of children (polio, pertussis, tetanus, diphtheria)
- Livestock vaccination (anthrax, pasteurellosis, blackleg and CBPP)
- Community support
- Increased levels of trust
- Reduction in costs
- Successful delivery of health interventions in hard-to-reach communities



Source: *Project Santé des Nomades au Tchad.*

Schelling E, Bechir M, Ahmed MA, Wyss K, Randolph TF, Zinsstag J. Human and Animal Vaccination Delivery to Remote Nomadic Families, Chad. Emerg Infect Dis. 2007;13(3):373-379. <https://doi.org/10.3201/eid1303.060391>

Questions



- What is the operational feasibility for scaling up these initiatives?
- How would resources and funds be managed where these are shared across sectors?
- Would there be negative perceptions around linking animal and human health interventions?



Photo: Felix Lankester

2. Integration with livestock health programmes: Combining dog rabies vaccination and livestock vaccination



In Kenya, dog vaccination coverage was much lower (15%) when delivered with cattle CBPP vaccination than when delivered through house-to-house visits (82%)

Coleman P. (1999) The epidemiology and control of domestic dog rabies. PhD Thesis, London School of Hygiene and Tropical Medicine

Questions:

- Would vaccination of dogs be considered a 'distraction' to livestock owners?
- Could sufficient dogs be brought to a livestock vaccination station?
 - Puppies? Non-herding dogs?
- Could oral rabies vaccines facilitate delivery of dog vaccination in this context?



Photo: Felix Lankester

2. Integration with livestock health programmes: Combining dog rabies vaccination and de-worming



Taenia multiceps (cerebral coenurosis)

- Emerging as a **high priority disease** for pastoralists in East Africa
- *T. multiceps* brain cysts detected in 82% of clinical cases reported by farmers as *Ormilo*
- 94% of pastoral households affected
- Annual loss of **11-34% sheep and goats**



2. Integration with livestock health programmes: Combining dog rabies vaccination and de-worming of dogs



- An effective platform for engaging with livestock owners on dog health

Questions:

- Could rabies vaccination (including oral vaccination) be linked with praziquantel treatment of dogs?
- Could this be included as part of community-led health interventions around dogs?
- Could the linkage provide opportunities for continuous rather than pulse rabies vaccination strategies?

KUZUIA ORMILO

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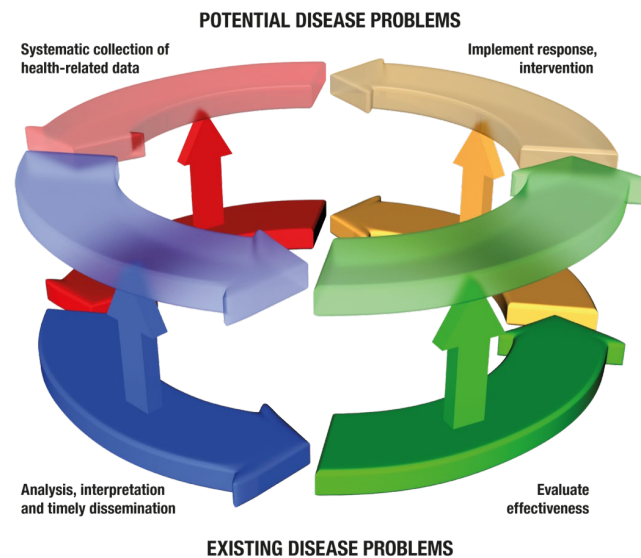
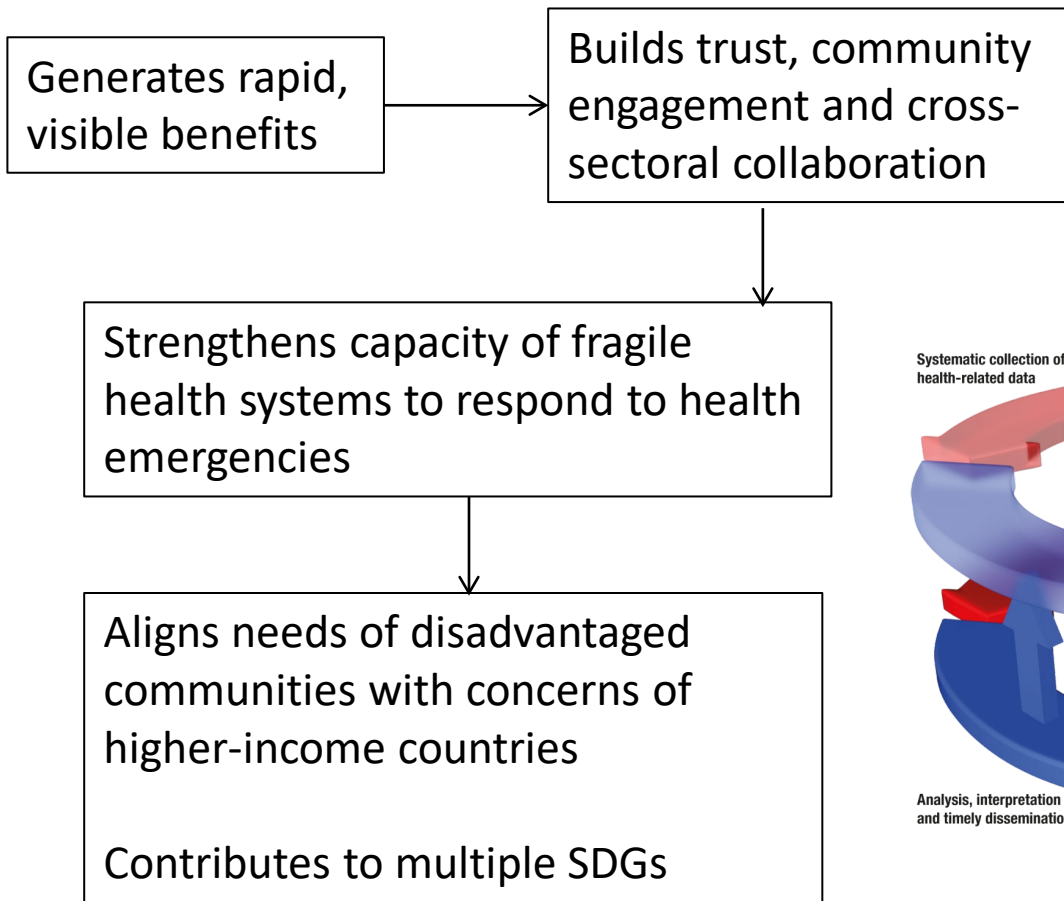









3. Integration for capacity-strengthening: Building on capacities established through control of rabies



REVIEW

Driving improvements in emerging disease surveillance through locally relevant capacity strengthening

Jo E. B. Halliday,^{1*} Katie Hampson,¹ Nick Hanley,² Tiziana Lembo,¹ Joanne P. Sharp,³ Daniel T. Haydon,¹ Sarah Cleaveland¹

Halliday et al. (2017). *Science*. 357: 146-148.
 Lankester et al. 2019 *BMC Public Health* 19: 1398.

Acknowledgements



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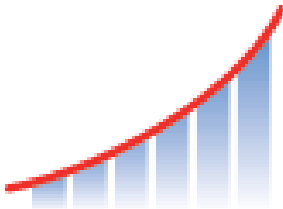
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