

Public health burden and exposure costs of rabies in Ethiopia

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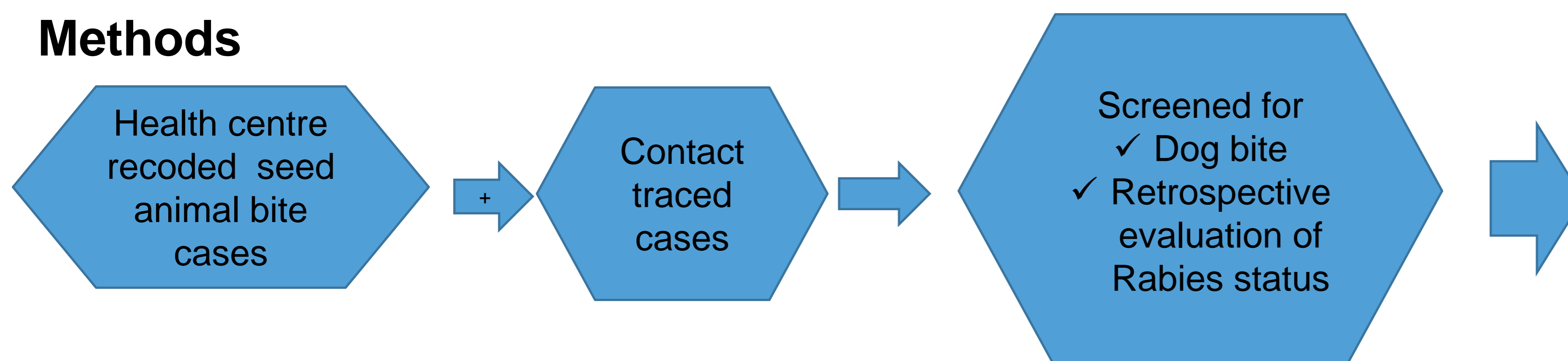
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Background

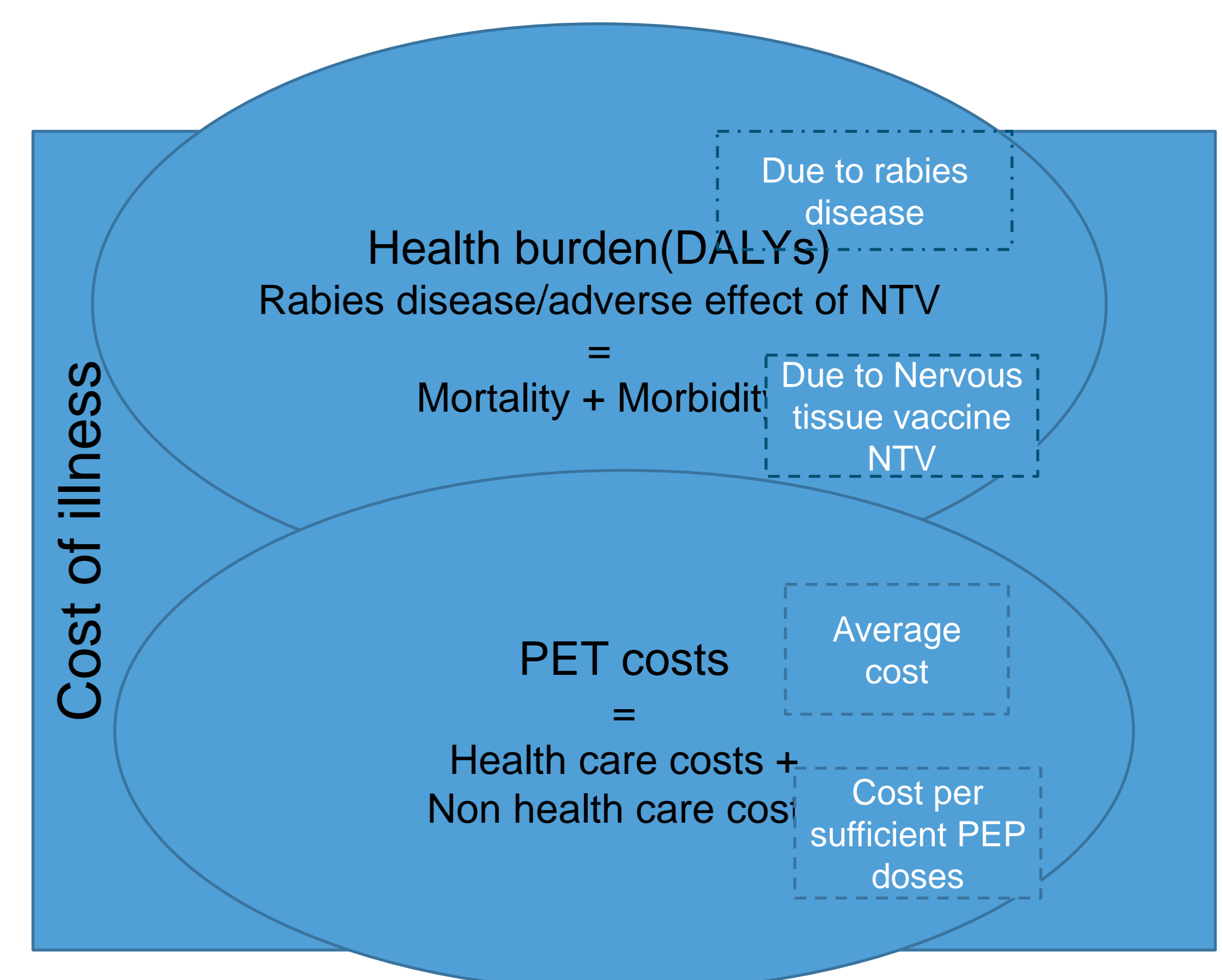
- ✓ About 30,000 human deaths annually in Africa due to canine rabies
- ✓ Ethiopia is supposed to be one of the worst affected countries
- ✓ Domestic dog as the major transmitter of the disease to humans
- ✓ Official reports generally underestimate the true number of human rabies cases and hence the true burden

Methods



Objective

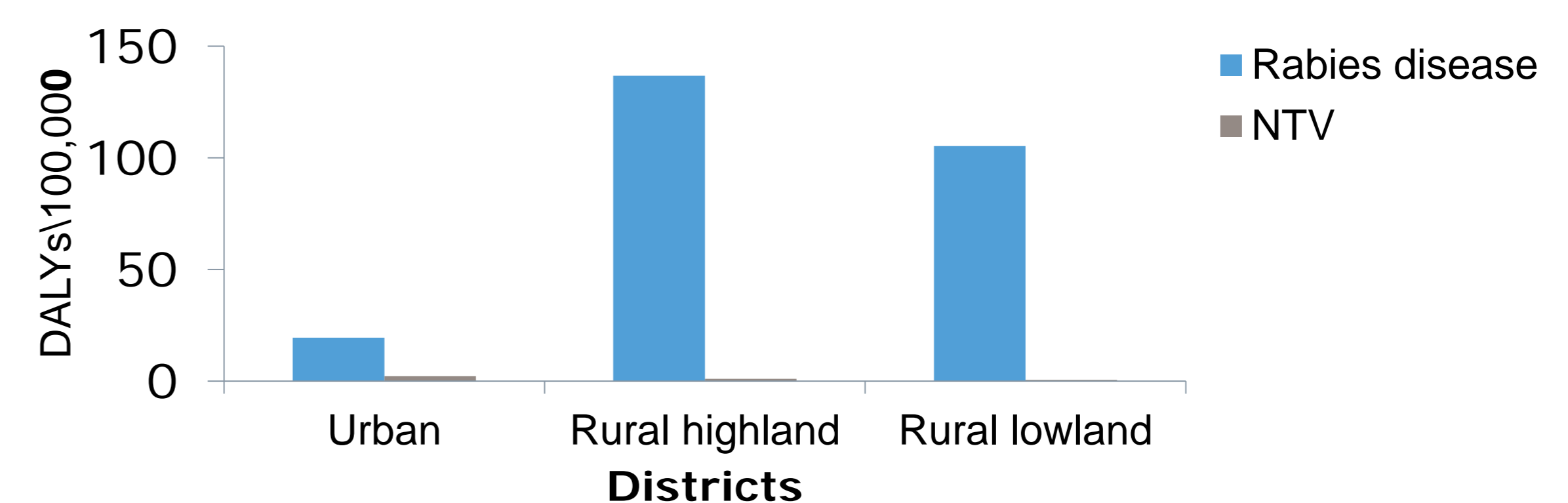
- ✓ To estimate the burden of rabies in Ethiopia to devise safe, cost-effective and sustainable control programme



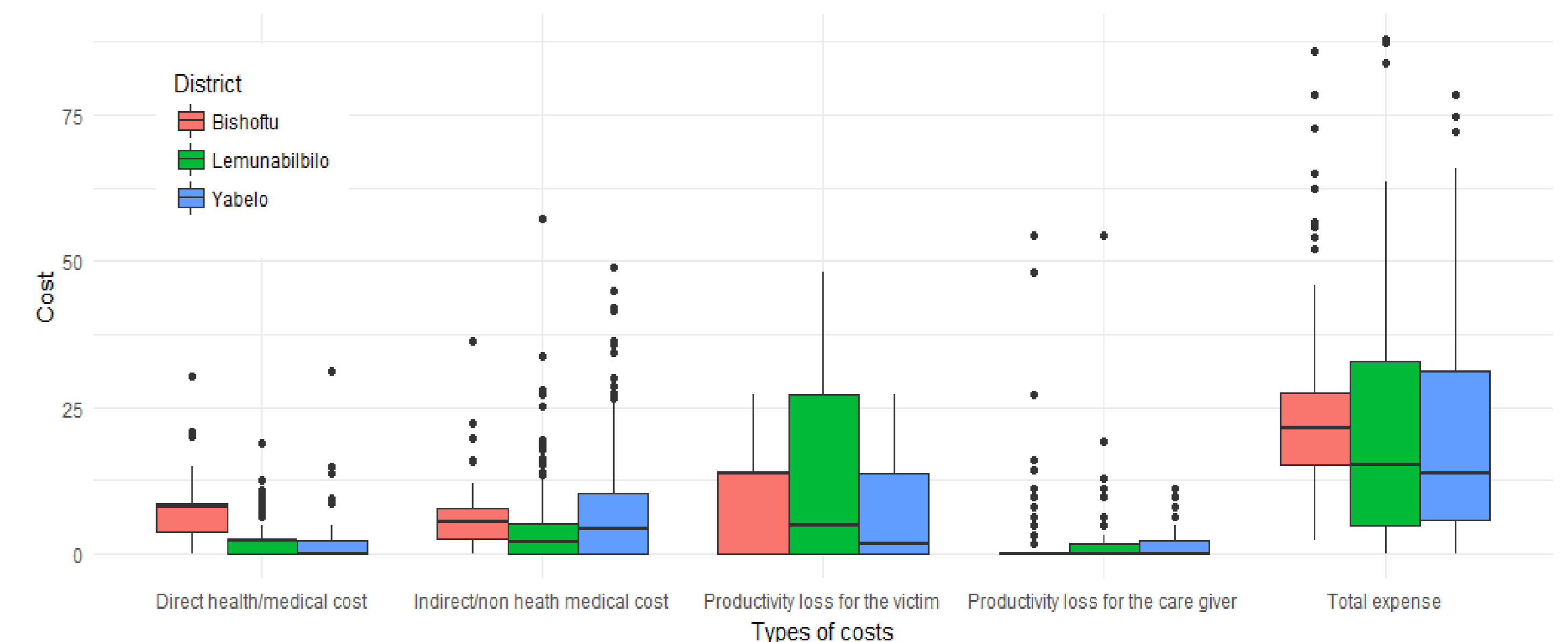
Results

Summary on bite cases, health and financial burden

	Total	Urban	Rural highland	Rural lowland
Dog bite cases	632	208	250	174
Rabid suspected dog bite cases/RSDB	465	189	189	87
Visiting a health centre	360 77%	183 97%	120 63%	57 65%
Receiving sufficient PEP	267 57%	147 78%	95 50%	25 29%
Deaths	12	1	8	3
Health burden in DALYs lost/100,000				
Due to rabies	19.4	137	105.2	
Due to adverse effect of NTV	2.2	1.05	0.5	
Post exposure treatment cost/RSDB				
Average/		22	20	21
Per sufficient NTV treatment		23.2	30.4	36.7
Per sufficient WHO recommended treatment		71.4	71.6	73.8



Average disability adjusted life years lost



Average cost per Rabid suspected dog bite cases

Conclusions

- Exposure rates are higher in urban district but health impacts and PET costs are higher in rural districts
- Non health care costs are the major contributor of PET costs
- Extrapolation to the national/Ethiopian level
 - ✓ 97,000 exposed persons (101 exposure cases/100,000), 3,000 human deaths (i.e. 3 deaths/100,000) and health loss of about 97,300 DALYs
 - ✓ 2 million USD economic loss/year
- Such information is crucial for devising safe, cost-effective and sustainable control programme

Acknowledgments

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