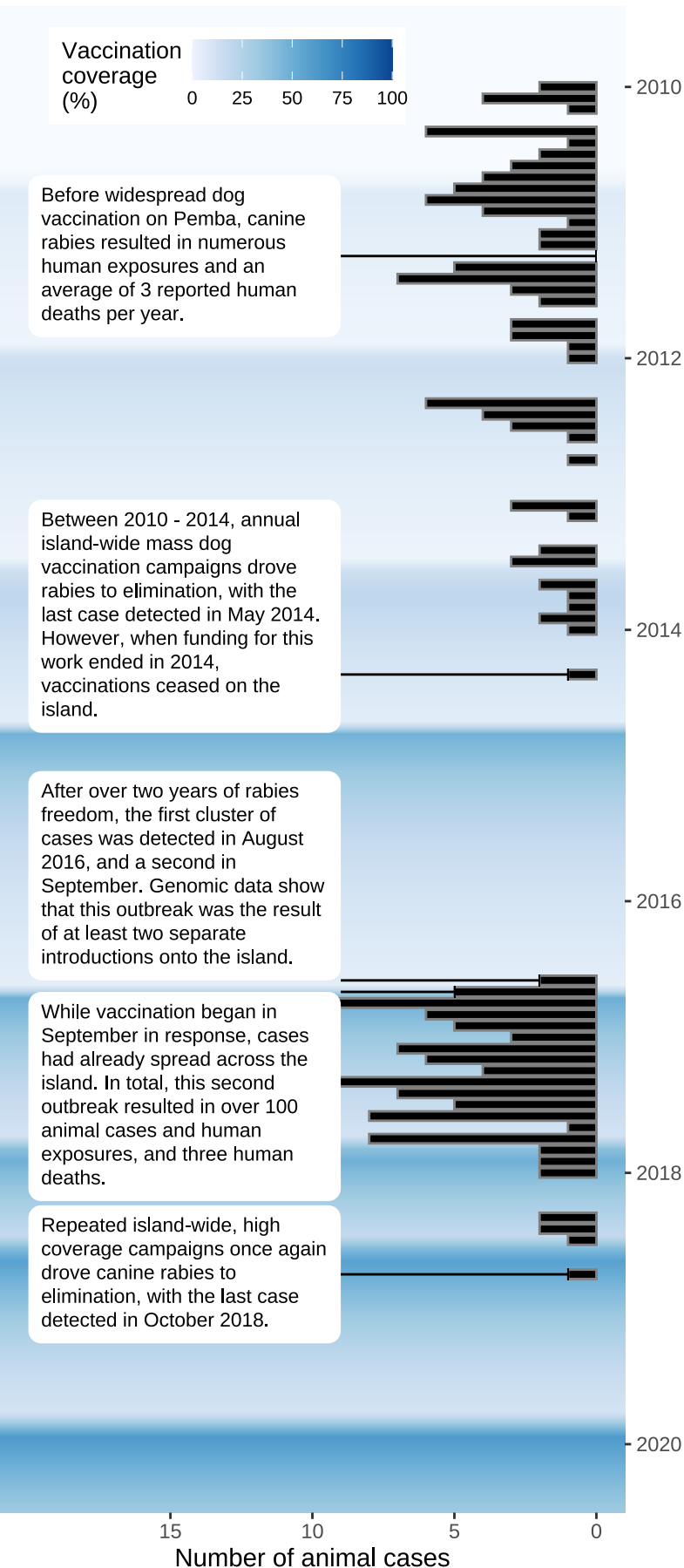


The path to canine rabies elimination on Pemba Island.

*Canine rabies is a deadly zoonotic disease that kills thousands of people every year in East Africa and has a devastating impact on communities across the world. Our work using contact tracing and enhanced surveillance to track rabies transmission shows how mass dog vaccinations on Pemba Island, Tanzania controlled this disease and resulted in its elimination, **twice**.*



Policy Recommendations

- 1. Implement regular mass dog vaccinations to eliminate rabies at the source.** Our work shows that island-wide, annual dog vaccinations that achieve high coverage (> 70% of the dog population) can eliminate canine rabies.
- 2. Expect and prepare for reintroductions.** Although re-introductions are a setback to rabies elimination programmes, they are likely if other areas are not undertaking rabies control. Improved border control can reduce introductions, but scaled up dog vaccination and enhanced surveillance are even more effective at preventing outbreaks.
- 3. Connect human and animal health workers to establish a One Health approach to rabies control.** Coordination between animal and human health workers on Pemba resulted in quick detection of rabies cases, appropriate referral of bite victims, and vaccination of domestic dogs.
- 4. Use rapid diagnostic tests and enhanced surveillance to improve rabies response and monitor the impacts of control efforts.** On Pemba, animal health workers were trained to conduct investigations of suspected animal rabies cases and to collect samples for rapid diagnostic confirmation and sequencing. This allowed us to monitor elimination and reintroduction events and help keep Pemba rabies free.
- 5. Train and equip livestock-field officers and veterinarians to vaccinate, assess coverage, and adapt.** During the second outbreak, vaccinators routinely assessed coverage by marking dogs and doing post-vaccination coverage surveys. Where they found coverage gaps, they conducted supplemental door-to-door vaccination to achieve sufficient coverage.
- 6. Sustain engagement between stakeholders to encourage adoption and awareness of best practices.** Joint discussions about surveillance findings amongst stakeholders and practitioners, including engagement with the regional and council health management teams, can promote better implementation of rabies control and prevention activities.
- 7. Continue outreach to communities impacted by rabies to reduce burden and maintain buy-in for control efforts.** Wide-scale awareness raising is important so that people know what to do if they are bitten by a dog or encounter any suspected animal, and know the importance of dog vaccination and rabies control efforts.

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