

Populational coverage of mass vaccination against rabies in São Paulo

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Rabies is an important zoonosis that affects almost all mammals and has wide geographical distribution, with a lethality of 100% in humans with clinical signs. Despite of its reservoir in Brazil being bats, the occurrence of human cases was more related to the contact with rabid dogs and cats. The authorities implemented in 1968 a prophylactic program and with capture of strays and public vaccination campaigns for companion animals, since 1983 the city of São Paulo did not register an autochthon case of animal rabies. In 2010 the mass vaccination was suspended due to technical difficulties and was not resumed since. In this work, we aimed to determine the vaccination coverage in the year of 2007, prior to the sudden interruption of campaigns. We used data of population size and distribution and proportion of that population that looked for vaccination in private clinics and compared with the vaccination points location given by the authorities. We assumed homogeneous distribution of the population in each study area (districts), after excluding water bodies and forest, and assumed the range of vaccination points to be similar to those of Guarulhos, observed in the 2000 campaign. With the median range of coverage, the mass vaccination campaign would reach 1,329,230 dogs and 329,166 cats, which added to the 698,947 dogs and 128,802 cats vaccinated in private clinics makes estimated vaccination coverage of 84% of dogs and 83% in cats. It is important to notice that 66% of vaccinated dogs and 72% of vaccinated cats would have received the vaccine in the public campaign. That data shows clearly the impact on vaccination coverage of the interruption of the campaign. Considering that immunity may last around 3 years and that we still have positive isolation in the city bat population, the lack of effective public vaccination since 2009 is the a possible cause of a new rabies case.