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EPIDEMIOLOGICAL SURVEILLANCE OF CANINE RABIES : RISK ANALYSIS

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Urban canine rabies has not been eradicated in Argentine Republic. In Buenos Aires city and its suburbs, with a population of eleven million, no cases of this disease have been reported since 1984 and 1987, respectively. A qualitative risk analysis of canine rabies allowed us to characterise a suburban municipal jurisdiction in which certain conditions would lead to the presence of this disease should viral activity spread.

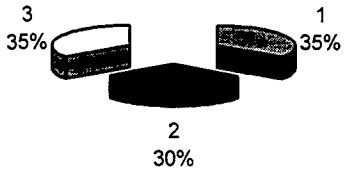
MATERIALS AND METHODS

Risk factors taken into account were : viral activity, vaccination administrative and serological coverage, animal health, the canine : dwelling and canine : person relationship, animal aggression toward people, and the rate of animals let out into the streets with varying degree of control. A qualitative risk analysis integrates the results of the risk factor identification and the release into a risk statement which includes a probability rating and a consequence rating. Each probability and consequence rating was qualified by a degree of certainty rating to justify the risk rating presented.

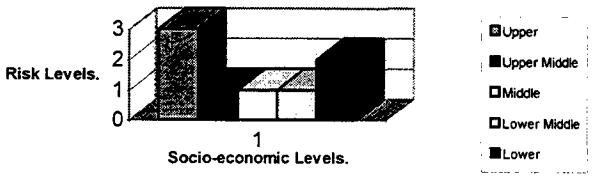
RESULTS

Risk probability was expressed in values ranging from 1 (low risk) to 5 (high risk). Over a total of 23 areas, it was observed that three of them (13.0%) presented a 5 risk level ; four areas (17.4%) showed a risk 4 level ; eight areas (34.8%) had a 3 risk level ; another four areas (17.4%) showed a 2 risk level ; and the last four areas (17.4%) studied presented a risk level. Taking this information and the consequence rating into account, risk ratings were set. Risk ratings were expressed in values ranging between 1 and 3, where 1 represents the lowest risk level, and 3 the highest one. Eight of the areas under study (34.8%) showed a 1 risk level ; seven areas (30.4%) presented a 2 risk level ; and the last eight areas (34.8%), a 3 risk level. In terms of the socio-economic level of the population, we found the following predominant risk levels : risk level 3 corresponded to the upper class ; 1, to the upper middle class ; 1, to the middle class ; 1, to the lower middle class ; and 2, to the lowest class.

Proportion of areas with different risk rating.



Predominant risk levels in terms of the socio-economic level of the population.



CONCLUSIONS

This analysis of risks will allow for the proper selection of epidemiological management actions through an efficient use of existing resources. It is proposed that the government sector participate in control activities in areas with a 3 risk level, while the private sector might take care of 2 and 1 risk level areas.

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