

## Pre and Post COVID-19 Pet Vaccination Trend at Teaching Veterinary Hospital, Namakkal

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### Abstract

The dogs brought for vaccination from the year 2018 to 2023 to the teaching Veterinary Hospital, Namakkal were analyzed in this study. The data pertaining to ARV (Anti-Rabies Vaccine) and DHLPPi (Distemper, Hepatitis, Leptospirosis, Parvo and Parainfluenza) vaccination were collected and classified into Year – wise, Breed – wise, District – wise and Age-wise categories for analysis. The results revealed that during the pre COVID and COVID periods (2018, 2019 and 2020) there was less difference in the number of vaccinations in dogs. But in post COVID-19 era (2021, 2022 and 2023) there was an increase in the vaccination trend. Hence, the data clearly indicates that the awareness on vaccination of pet animals is hiked during post COVID period.

**Keywords:** COVID-19, Dog Vaccination, DHLPPi, Anti-Rabies vaccine.

Vaccination is the most important preventive measure for protection against infectious diseases in humans and companion animals (Eschle *et al.*, 2020). Vaccination guidelines for dogs indicate that core vaccines (Rabies, Distemper, Adenovirus, Parvovirus) are essential to maintain health, and that non-core vaccines be administered according to a clinician's assessment of a pet's risk of exposure and susceptibility to infection (Malter *et al.*, 2022). Vaccination coverage of 75% is generally recommended for all core vaccines (Dayet *et al.*, 2016). Owner compliance with vaccination recommendations is crucial to achieve this level

of vaccination coverage (Eschle *et al.*, 2020). COVID-19 has affected everyday life of humans and has hindered the worldwide economy. This pandemic also impacted a social life of people all over the world (Mishra *et al.*, 2020). Hence this study explores the pre and post COVID-19 vaccination trends in dogs at Teaching Veterinary Hospital, Veterinary College and Research Institute, Namakkal.

### Materials and Methods

The study was carried out in the Veterinary Clinical Complex, Veterinary College and Research Institute, Namakkal. From the case sheets the data on the number of vaccinations of DHLPPi and ARV were collected from the year 2018 to 2023 using the case sheets. The breed-wise data, the region based data (Namakkal, Trichy, Salem, Karur and Erode districts) and age-wise vaccination data (0-6 months, 7-12 months and > 1 Year) of DHLPPi and ARV were collected. The data on type of vaccination was drawn as figure and the data on breed – wise, district – wise and age-wise categories were presented as table to identify the trend of vaccination at Teaching Veterinary Hospital, VCRI, Namakkal.

### Results and Discussion

The data on year-wise vaccination of DHLPPi and ARV in dogs are depicted in figure 1. From the data it is evident that during the pre COVID and COVID periods (2018, 2019 and 2020) there was no much difference in the number of vaccinations in dogs. But in the post COVID-19 era (2021, 2022 and 2023) there was an increase in

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**Table I.** Breed-Wise, District-Wise And Age-Wise DHLPPi Vaccination In Dogs From The Year 2018 To 2023 At Teaching Veterinary Hospital, Namakkal

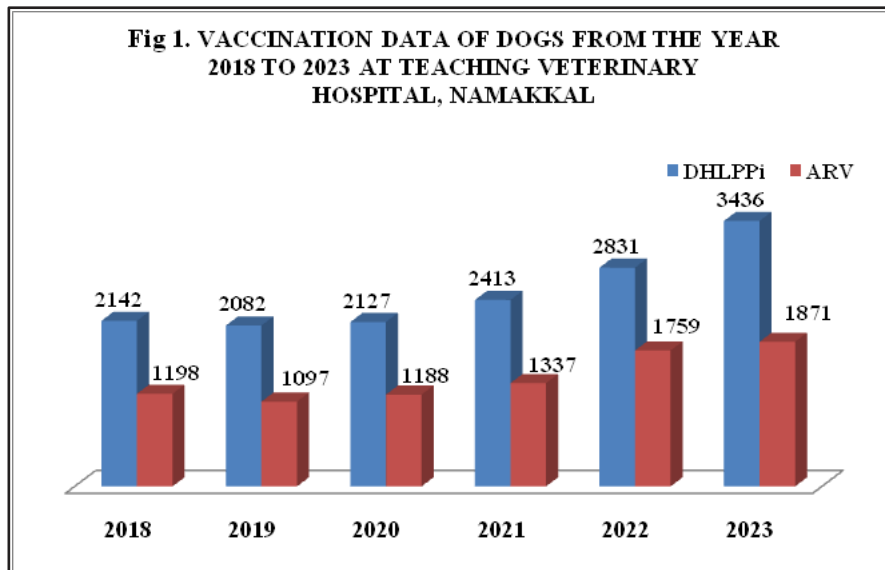
Year	Breed-wise		District-wise		Age-wise		
	Non-Descript	Descript Breeds	Namakkal	Other Districts	0-6 Months	6-12 Months	> 1 Year
2018	996	1146	2121	21	1587	181	374
2019	981	1111	2084	19	1535	179	368
2020	859	1258	2090	7	1575	172	370
2021	1085	1328	2103	23	1864	174	303
2022	1270	1561	2799	32	2321	104	406
2023	1457	1979	3414	22	2759	145	532

**Table II.** Breed-Wise, District-Wise And Age-Wise Arv Vaccination In Dogs From The Year 2018 To 2023 At Teaching Veterinary Hospital, Namakkal

Year	Breed-wise		District-wise		Age-wise		
	Non-Descript	Descript Breeds	Namakkal	Other Districts	0-6 Months	6-12 Months	> 1 Year
2018	510	688	1192	6	643	110	445
2019	480	617	1062	12	539	104	431
2020	488	700	1177	10	692	100	395
2021	669	668	1325	12	803	112	422
2022	860	899	1695	64	934	179	578
2023	911	959	1853	6	910	130	817

the vaccination trend. Cunniff *et al.*(2023) stated that due to the impact of COVID-19 there was a significant reduction in vaccination rates across all age groups in human in United States. Due to the impact of COVID vaccination in humans, the pet vaccinations showed an increasing trend to protect them from the infectious diseases. The DHLPPi vaccinations in dogs were higher when compared to ARV vaccination, since free ARV vaccination camps were regularly conducted by the Veterinary Hospital, VCRI, Namakkal and also by the Department of Animal Husbandry, Namakkal district during every year. The data on breed-wise, district-wise and age-wise DHLPPi and ARV vaccination in dogs at Teaching Veterinary Hospital, VCRI, Namakkal are presented in the Table I and Table II respectively. In the Breed-wise data of both DHLPPi and ARV vaccination, the number of descript breeds vaccinated was higher than the non-descript breeds. It reflects that the owners are interested in rearing a peculiar breed as their pets and the people of Tamil Nadu are more obsessed with

possessing the foreign/ exotic breeds (McConnell and Rani., 2022). From the district -wise vaccination of dogs it is evident that the higher number of dogs of the Namakkal district were vaccinated at VCC, VCRI, Namakkal when compared to the other districts of Tamil Nadu. Among the age-wise vaccination data, the dogs in the age group of 0-6 months were highly vaccinated followed by > 1 year age group and 6-12 months. Since the vaccination age of the dogs starts from 6<sup>th</sup> week of age and ends by 18<sup>th</sup> week for both DHLPPi and ARV vaccination, more number of dogs got vaccinated during the age of 0-6 months. Moreover a considerable increase in the pet vaccination in the 0-6 months age group from the year 2021 to 2023 indicates that the awareness to have a dog/ cat as a companion for the family during the post COVID period considering the impact of loneliness during the COVID period as well as the interest of pet rearing among the children in the family. Since the yearly vaccination of both DHLPPi and ARV are mandate, the next



highly vaccinated age-group is more than 1 year category. The data on age-wise vaccination has strong association with the vaccination recommendations made by the veterinarian (Eschle *et al.*, 2020).

### Summary

The immunization data of ARV and DHLPPi vaccination were collected from the case sheets of dogs which were brought to the Veterinary Clinical Complex, Veterinary College and Research Institute, Namakkal during the year 2018 to 2023. It was found that there was much less difference in number of dogs vaccinated by both ARV and DHLPPi during the pre COVID-19 and COVID-19 period. During the post COVID-19 period there was an increase in vaccination trend in dogs which may be due to the impact of COVID vaccinations in humans. More number of young aged (0-6 months), descriptive breed dogs of Namakkal district were vaccinated when compared to other age grouped, non-descript breeds and other district dogs.

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