

# Canine Parvovirus in 2026: Prevalence, New Treatments, and Acknowledging Vaccine Hesitancy

Researched by Kyra Glowczak


# Introduction

## 4 Main Factors to Consider When Evaluating CPV

1. What is canine parvovirus?
2. What are the symptoms?
3. Affected groups?
4. Concerning strains?



# Why is the Significance to an Incoming Veterinary Student?

- To learn the ways to care for canines, and all animals, in the best manner
    - Practically and ethically
  - To practice effective protocols and be mindful of possible diagnosis
  - To understand the development of the veterinary vaccine industry
- 

# Use of Biomarkers

**Figure 1:** Representation of Parvovirus Biomarkers Li, H., Li, S., Pan, Y., & Shi, Q. (2025)

- Early diagnosis
- Mortality susceptibility

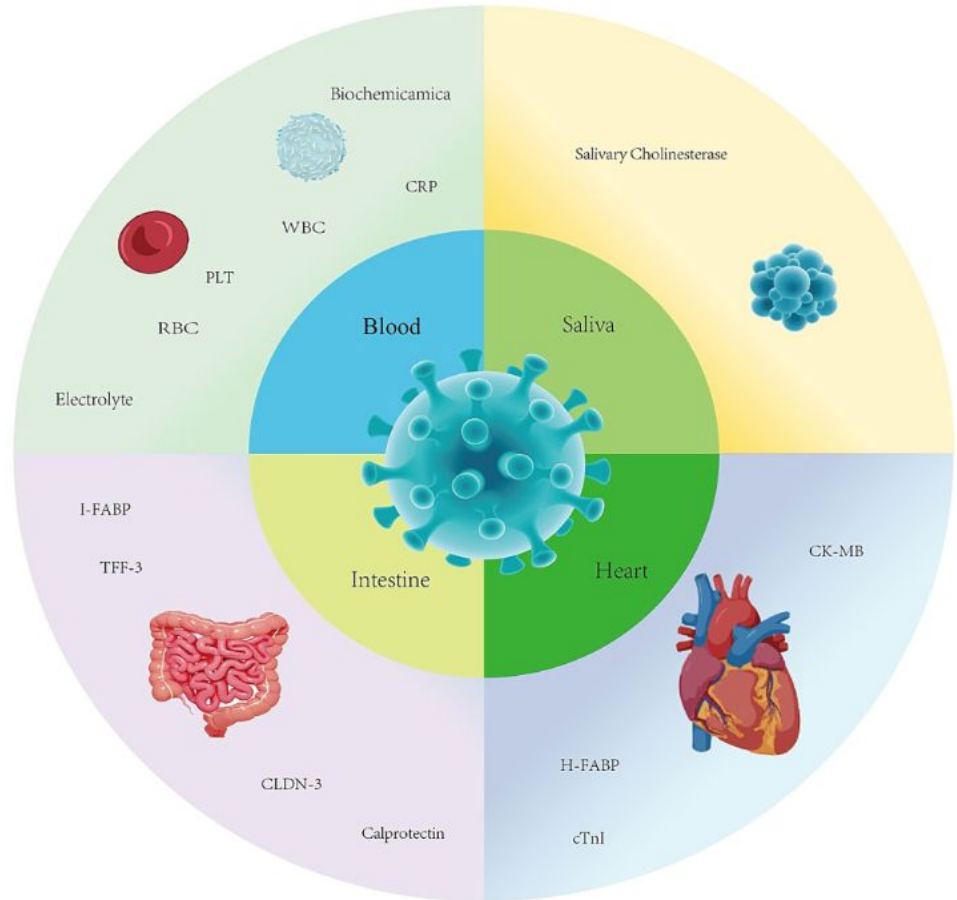


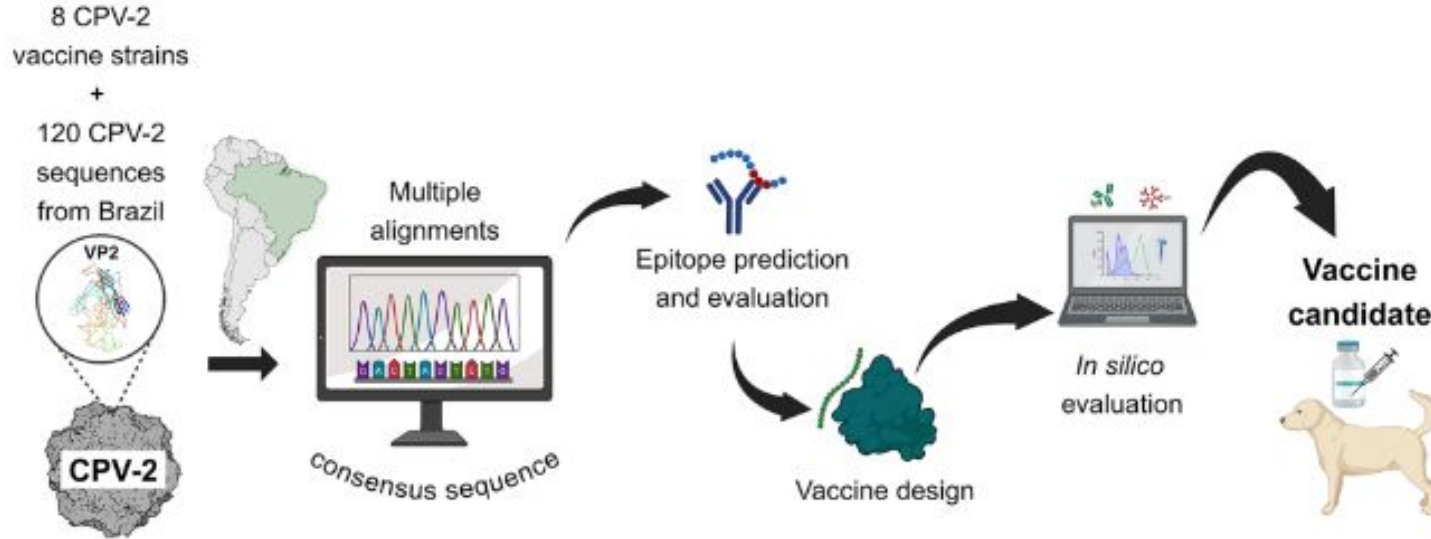
FIGURE 1

# CPV-2c Dominance

- Where is this strain most commonly found?
- What age groups see persistence in this strain?
- Inpatient vs outpatient therapy treatments



# Vaccine Advances



**Figure 2:** Use of recombinant CPV-2c strain to combat parvovirus

# Vaccine Hesitancy

**Table 4:** Additional p values of vaccine hesitancy for canines specifically

- How does client status effect their belief system?
- What can be done to combat this?

*M. Motta et al.*

**Table 4**

The effects of CVH on vaccine policy attitudes and vaccination status.

Outcome Variable: CVH Indicator:	Policy Opposition		Non-Vaccination	
	Dichotomous	Averaged	Dichotomous	Averaged
CVH	0.75 <sup>*</sup> (0.18)	1.60 <sup>*</sup> (0.29)	0.49 <sup>*</sup> (0.25)	1.14 <sup>*</sup> (0.35)
Human Vax. Misinfo. Endorsement	0.79 <sup>*</sup> (0.20)	0.66 <sup>*</sup> (0.21)	0.51 <sup>*</sup> (0.25)	0.37 (0.27)
PID = Democrat	-0.75 <sup>*</sup> (0.26)	-0.69 <sup>*</sup> (0.27)	-0.60 <sup>+</sup> (0.31)	-0.53 <sup>+</sup> (0.32)
PID = Republican	-0.16 (0.25)	-0.10 (0.25)	-0.87 <sup>*</sup> (0.30)	-0.83 <sup>*</sup> (0.30)
Gender ID = Woman	0.06 (0.18)	0.04 (0.18)	0.32 (0.24)	0.31 (0.25)
College Educated	-0.30 <sup>+</sup> (0.17)	-0.30 <sup>+</sup> (0.18)	-0.52 <sup>*</sup> (0.25)	-0.53 <sup>*</sup> (0.25)
Racial ID = Black	-0.34 (0.35)	-0.30 (0.35)	0.37 (0.43)	0.42 (0.43)
Ethnicity ID = Hispanic	0.11 (0.32)	0.13 (0.33)	0.46 (0.36)	0.50 (0.37)
S\beta_05	-0.32 (0.28)	-0.38 (0.27)	-1.80 <sup>*</sup> (0.37)	-1.89 <sup>*</sup> (0.36)
N	895	895	896	896

# Key Takeaways

- Implement vaccination standards
  - Client education by clinics is necessary
  - *Promising new vaccine efforts*
- ★ There may always be a gap to bridge in terms of vaccine efficacy



The background is a solid pink color. In the top right corner, there is a decorative graphic consisting of several overlapping geometric shapes, including triangles and squares, in various shades of pink and magenta.

Questions?

# References

## References-

Altman KD, Kelman M, Ward MP. Are vaccine strain, type or administration protocol risk factors for canine parvovirus vaccine failure? *Vet Microbiol.* 2017 Oct;210:8-16. doi: 10.1016/j.vetmic.2017.08.019. Epub 2017 Aug 30. PMID: 29103701.

Decaro N, Buonavoglia C, Barrs VR. Canine parvovirus vaccination and immunisation failures: Are we far from disease eradication? *Vet Microbiol.* 2020 Aug;247:108760. doi: 10.1016/j.vetmic.2020.108760. Epub 2020 Jun 15. PMID: 32768213; PMCID: PMC7295477.

DiGangi BA, Craver C, Dolan ED. Incidence and Predictors of Canine Parvovirus Diagnoses in Puppies Relocated for Adoption. *Animals (Basel).* 2021 Apr 9;11(4):1064. doi: 10.3390/ani11041064. PMID: 33918569; PMCID: PMC8070465.

Haeder, S. F. (2023). Assessing vaccine hesitancy and support for vaccination requirements for pets and potential spillovers from humans. *Vaccine, 41(49)*, 7322-7332.

Li H, Li S, Pan Y, Shi Q. Decoding canine parvovirus: biomarkers for diagnosis and advances in vaccine development to address emerging challenges. *Front Vet Sci.* 2025 Aug 6;12:1624275. doi: 10.3389/fvets.2025.1624275. Erratum in: *Front Vet Sci.* 2025 Sep 01;12:1684220. doi: 10.3389/fvets.2025.1684220. PMID: 40843250; PMCID: PMC12364679.

Lopes TS, Gheno BP, Miranda LDS, Detofano J, Khan MAA, Streck AF. In silico designing of multi-epitope vaccine against canine parvovirus using reverse vaccinology. *Braz J Microbiol.*

Mazzaferro EM. Update on Canine Parvoviral Enteritis. *Vet Clin North Am Small Anim Pract.* 2020 Nov;50(6):1307-1325. doi: 10.1016/j.cvsm.2020.07.008. Epub 2020 Sep 2. PMID: 32891439; PMCID: PMC7467068.

Motta, M., Motta, G., & Stecula, D. (2023). Sick as a dog? The prevalence, politicization, and health policy consequences of canine vaccine hesitancy (CVH). *Vaccine, 41(41)*, 5946-5950.

Pearce J, Spibey N, Sutton D, Tarpey I. Development of a Novel Canine Parvovirus Vaccine Capable of Stimulating Protective Immunity in Four-Week-Old Puppies in the Face of High Levels of Maternal Antibodies. *Vaccines (Basel).* 2023 Sep 18;11(9):1499. doi: 10.3390/vaccines11091499. PMID: 37766175; PMCID: PMC10534519.

Yip HYE, Peaston A, Woolford L, Khoo SJ, Wallace G, Kumar RS, Patel K, Ahani Azari A, Akbarzadeh M, Sharifian M, Amanollahi R, Jafari Jozani R, Khabiri A, Hemmatzadeh F. Diagnostic Challenges in Canine Parvovirus 2c in Vaccine Failure Cases. *Viruses.* 2020 Sep 3;12(9):980. doi: 10.3390/v12090980. PMID: 32899378; PMCID: PMC755202