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## A Centralized Mobile App for Dog Rabies Vaccination Reporting by Private and City Veterinarians in Davao City

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### Abstract

Rabies is a fatal viral disease spread through animal bites, primarily from dogs. Despite vaccination efforts, it remains a public health issue, especially in the Philippines. Utilizing mobile technology for real-time data collection could enhance rabies surveillance, improving disease management and targeting resources more effectively for eradication. The mobile app streamlines rabies data collection by private veterinarians and the City Veterinarian's Office (CVO) in Davao City, using the Scrum Agile development lifecycle. Features include user management, data tracking, and real-time reporting. The system undergoes alpha and beta testing, with usability assessed via the System Usability Scale to ensure effectiveness. The RabDash mobile application was developed to centralize rabies data collection for Davao City's CVO, RabDash DC, and private veterinarians. The app features a landing page, user authentication, a main menu, input forms, data tables, downloadable forms, and a user profile. It simplifies data transition from manual to digital formats, enabling efficient rabies tracking. The app's frontend focuses on user accessibility, while the backend ensures secure data management via MySQL and API integration. Hosted on Hostinger, the mobile app received positive feedback, with an above-average usability score of 80.63. However, challenges like poor internet access in remote areas and usability issues were noted. Despite this, the app is a significant step toward improving rabies management in Davao City. The study highlights the development of a mobile application to digitize rabies data collection for Davao City's CVO and private veterinarians. While the app improved data management and usability, survey feedback identified areas for improvement. Recommendations include enhancing the user interface, adding offline functionality for areas with limited internet access, integrating RabDash DC's charts and forecasting modules, and providing user training to facilitate a smooth transition to the new system. Expanding the app to allow public participation in animal data gathering was also suggested to increase its impact in controlling and eliminating rabies.