



5S Strategy Practices Kontra Dengue in the Selected Barangays of Santiago City in 2022: Basis in the Dengue Enhancement Program and Public Advocacy

Markhipolito P. Galingana¹(CA), Virgilio D. Ganadin Jr.²(CA), Jaime P. Gabriel Jr.³(CA),

Lyka C. Abitria⁴(CA), Aiko A. Acosta⁵(CA), Christianne May B. Addun⁶(CA),

Apple Madge O. Agnes⁷(CA), Marielle A. Arellano⁸(CA), Tsz Hay Kimberly C. Guarin⁹(CA)

Faculty, Isabela State University-Main Campus, Philippines^{1,2,3}

Students, Isabela State University-Main Campus, Philippines^{4,5,6,7,8,9}

galinganamark@gmail.com, vdgjr051077@gmail.com, jamielaangela@yahoo.com, abitrialyka@gmail.com
aikoacosta10@gmail.com, achristiannemay@gmail.com, madgeagnes@gmail.com, marielleacioarellano@gmail.com

guarintszhaykimberly@gmail.com

Abstract: *Dengue is a rapidly spreading vector-borne disease endemic in 100 countries, with complex factors contributing to its occurrence. In Santiago City, the City Epidemiology and Surveillance Unit (CESU) conducted a survey in 2022, revealing 603 cases of Dengue from 2018 to 2022. Thus, the researchers are determined to know the reasons behind the high incidence of dengue cases in Santiago City. The study aimed to determine the practices affecting respondents from barangays Rizal, Plaridel, and Patul to acquire Dengue disease. The data was collected using a survey questionnaire. The results showed no significant difference between the profile variables of respondents and the 5s practices against Dengue. Additionally, there was no significant relationship between the 5s practices against Dengue and the profile variables of the respondents. Profile variables such as age, sex, educational attainment, occupation, and place of work were found to be unimportant in the 5s practices against Dengue. Moreover, the study revealed that most respondents answered sometimes in 5s1 practices, such as searching and destroying breeding sites, participating in public activities, and being aware of the 5s strategy. They also answered sometimes in using mosquito nets before going to sleep, putting screens on windows and doors, and using electric rackets to kill mosquitoes. In 5s2 practices, respondents often sought early consultations for Dengue symptoms, rarely in fogging conducted by the barangay, and sometimes in contacting the health center for questions about fogging. In 5s5 practices, respondents often and always sustained their hydration by drinking enough water and eating fruits rich in water. The researchers concluded that the 5S practices kontra Dengue was not really practiced, improperly practiced or their neighbors do not practice the 5S strategies as it was reflected on the answer of the respondents and observation of the researchers. Furthermore, the researchers concluded that the local government unit's lack of attention in proper fogging and spraying in each barangay may contribute to the incidence of Dengue in Santiago City. Therefore, by spreading awareness through information dissemination and taking part in the shared responsibilities of the citizens and the government in doing the 5S Strategy Practices Kontra Dengue will lower the incidence of Dengue in Santiago City.*

Keywords: Dengue, City Epidemiology and Surveillance Unit (CESU), Santiago City, 5S practices kontra Dengue.



REFERENCES

- [1]. Abante, L., Dela Cruz, J. M., Evalle, A., Medel, K., Octaviano, E., Ugaddan, C. G., Agawin, M., & Quinto, L. F. (2020). Assessment of the Department of Health's 4S Laban Kontra Dengue Program Practices among selected residents in Laguna. *Philippine EJournals*. <https://ejournals.ph/article.php?id=17347>
- [2]. Agrupis, K. A., Ylade, M., Aldaba, J., Lopez, A. L., & Deen, J. (2019). Trends in Dengue research in the Philippines: A systematic review. *PLOS Neglected Tropical Diseases*. <https://doi.org/10.1371/journal.pntd.0007280>
- [3]. Alera, M. T., Srikiatkachorn, A., Velasco, J. M., Tac-An, I. A., Lago, C. B., Clapham, H. E., Fernandez, S., Levy, J. W., Thaisomboonsuk, B., Klunthong, C., Macareo, L. R., Nisalak, A., Hermann, L., Villa, D., & Yoon, I. K. (2016). Incidence of Dengue Virus Infection in Adults and Children in a Prospective Longitudinal Cohort in the Philippines. *PLOS Neglected Tropical Diseases*. <https://doi.org/10.1371/journal.pntd.0004337>
- [4]. Baccay, G. (2018). Factors Affecting the Incidence of Dengue Cases in Selected Communities of Echague Isabela.
- [5]. Biradar M, Kunte R, Basannar D. (n.d.)Assessment of behavioral risk factors for Dengue: A Case-Control study from Pune. *Med J DY Patil Vidyapeeth* [serial online] 2022 [cited 2023 Feb 16];15:341-5. Available from: <https://www.mjdrdyv.org/text.asp?2022/15/3/341/321281>
- [6]. Cañada, E. A., Caysip, A. B., Collantes, K., Pableo, C. J., Tutaan, K., Agawin, M., & Quinto, L. F. (2020). Assessing the Knowledge, Awareness, and Preventive Measures towards Dengue in a selected Barangay in Laguna. *Philippine EJournals*. <https://ejournals.ph/article.php?id=17349>
- [7]. Cheng, K. J. G., Lam, H. Y., Rivera, A. S., Tumanan-Mendoza, B. A., Alejandria, M. M., & Wu, D. B. C. (2018). Estimating the Burden of Dengue in the Philippines Using a Dynamic Transmission Model. *Original Article*. <https://actamedicaphilippina.upm.edu.ph/index.php/acta/article/download/427/388/>
- [8]. Cheng, K. Lam, L. Rivera, A. Mendoza, B. Alejandria, M. and Wu, B. (2018). Estimating the Burden of Dengue in the Philippines Using a Dynamic Transmission Model. <https://actamedicaphilippina.upm.edu.ph>.
- [9]. De los Reyes, A. A., V, & Escaner, J. M. L., IV (2018).
- [10]. Dengue in the Philippines: Model and analysis of parameters affecting transmission. *Journal of Biological Dynamics*. <https://doi.org/10.1080/17513758.2018.1535096>
- [11]. Department of Health (n.d.). DENGUE PREVENTION AND CONTROL PROGRAM. <https://doh.gov.ph/national-Dengue-prevention-and-control-program>
- [12]. Department of Health (n.d.).Amendment to Administrative Order No. 2018-0021 entit_1_<11 "Guidelines for the Nationwide Implementation of the Enhanced 4S-Strategy against Dengue, Chikungunya and Zika" dated July 25, 2018
- [13]. Department of Health (n.d.).DENGUE CASE CLASSIFICATION AND LEVEL OF SEVERITY <https://doh.gov.ph/Health-Advisory/Dengue>
- [14]. Guad, R. M., Carandang, R. R., Solidum, J. N., Taylor-Robinson, A. W., Wu, Y. S., Aung, Y. N., Low, W. Y., Sim, M. S., Sekaran, S. D., & Azizah, N. (n.d.). *Different domains of Dengue research in the Philippines: A systematic review and meta-analysis of questionnaire-based studies*. *PLOS One*. <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0261412>
- [15]. Herbuena, V. R. D. M., De Guzman, F. S., Sobrepena, G. D., Claudio, A. B. F., Tomas, A. C. V., Arriola-delos Reyes, C. M., Regalado, R. A., Teodoro, M. M., & Watanabe, K. (2019). Knowledge, Attitude, and Practices Regarding Dengue Fever among Pediatric and Adult In-Patients in Metro Manila, Philippines. <https://doi.org/10.3390/ijerph16234705> https://doh.gov.ph/sites/default/files/health_programs/ao2018-0021-a.pdf
- [16]. Iguchi, J. A., Seposo, X. T., & Honda, Y. (2018). Meteorological factors affecting Dengue incidence in Davao, Philippines. *BMC Public Health*. <https://doi.org/10.1186/s12889-018-5532-4>
- [17]. K. Wellekens, A. Betrains, P. De Munter & W. Peetermans (2022). Dengue: current state one year before WHO 2010–2020 goals. <https://www.tandfonline.com/action/showCitFormats?doi=10.1080%2F17843286.2020.1837576>



IJARSCT

International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

IJARSCT

ISSN (Online) 2581-9429

International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal

Impact Factor: 7.53

Volume 4, Issue 2, February 2024

- [17]. Magal, P., Seydi, O., Webb, G., & Wu, Y. (2021). A Model of Vaccination for Dengue in the Philippines 2016–2018. <https://www.frontiersin.org/articles/10.3389/fams.2021.760259/full>
- [18]. Magtibay, K. J., Sindao, C. J., Java, H. M., Saludo, M. T., Lat, L. J., Agawin, M., & Quinto, L. (2021). Analysis of Climatic Factors and Recorded Clinical Cases of Dengue in Region IV-A CALABARZON.
- [19]. Masrizal, Wiratni, I., Putra, O. Behavioral and Living Environmental Factors Associated with Dengue Haemorrhagic Fever Prevalence in Air Dingin Public Health Center, Padang City (2019). <https://knepublishing.com/index.php/KnELife/article/view/3800/7865#info>
- [20]. Ong, E. P., Obeles, A. J. T., Ong, B. A. G., & Tantengco, O. A. G. (2022). Perspectives and lessons from the Philippines' decades-long battle with Dengue. <https://doi.org/10.1016/j.lanwpc.2022.100505>
- [21]. Onuh, W., & Cabanacan-Salibay, C. (2021). Analysis of Dengue cases and severity classifications in Cavite Province, Philippines. *Journal of Vector Borne Diseases*. <https://doi.org/10.4103/0972-9062.321742>
- [22]. Rakhmani, A.N., Limpanont, Y., Kaewkungwal, J. et al. Factors associated with Dengue prevention behaviour in Lowokwaru, Malang, Indonesia: a crosssectional study. *BMC Public Health* 18, 619 (2018). <https://doi.org/10.1186/s12889-018-5553-z>
- [23]. Undurraga, E.A., Edillo, F.E., Erasmo, J.V., Alera, M.P., Yoon, I., Largo, F.M., Shepard, D.S. (2017). Disease Burden of Dengue in the Philippines: Adjusting for Underreporting by Comparing Active and Passive Dengue Surveillance in Punta Princesa, Cebu City. <https://pubmed.ncbi.nlm.nih.gov/28093542/>.
- [24]. Xu, Z., Bambrick, H., Yakob, L., Devine, G., Frentiu, F. D., Salazar, F. V., Bonsato, R., & Hu, W. (2019). High relative humidity might trigger the occurrence of the second seasonal peak of Dengue in the Philippines. [https://doi.org/https://doi.org/10.1016/j.scitotenv.2019.13484](https://doi.org/10.1016/j.scitotenv.2019.13484)
- [25]. Yu, A. K. D., Ytienza, S. I. E., Yu, A. M. D., Yu, V. C. S., Wangkay, K. A. K., Wong, M. A. R., Zamudio , M. A. B., Zhang, E. M. T., Yumul , W. D., Zipagan, Z. M. R., Yaranon , A. K. R., Zapanta, J. B. C., Ysip , G. B., & Duque-Lee, C. D. (2020). Correlation between incidence of Dengue and climatic factors in the Philippines: An ecological study. *Health Sciences Journal*.