

Biodata

Name: Dr. Nagaraj J

Designation: Scientist C (Biostatistics)

Email : nagarajicmr@gmail.com / j.nagaraj@icmr.gov.in

Contact number: +91 8124239747 / 7904049905

Academic Qualifications	Subject	University/Institution	Academic Year	Achievements
B. Sc	Statistics	Govt. Art & Science College Udumalpet, Bharathiyar University, Coimbatore, TN	2007	University 3 rd rank (1 st class with distinction)
M. Sc	Statistics	PSG College of Arts & Science, Bharathiyar University, Coimbatore, TN	2009	1 st class with distinction
PGDCA	Computer Application	TCBS Infotech India, Madurai, TN	2012	First class
Ph.D.	Statistics	Annamalai University, Chidambaram, TN	2024	

Research Experience: From 2010 to present

Specialization: Biostatistics, Survival Analysis, Spatial data Analysis, Study design, Bayesian modelling, and Longitudinal Data Analysis

Publications:

- ❖ Chhedi Lal Gupta, **Nagaraj Jaganathasamy** and Manisha Madkaikar. Microbiome in sickle cell disease: Pathophysiology and therapeutic insights. British Journal of Haematology (2024). <https://doi.org/10.1111/bjh.19736>
- ❖ Kripa PK, Thanzeen PS, **Nagaraj Jaganathasamy**, Sangamithra Ravishankaran, Anupkumar R, Anvikar and Alex Eapen. Impact of climate change on temperature variations and extrinsic incubation period of malaria parasites in Chennai, India - Implications on its disease transmission potential. Parasites Vectors 17, 134 (2024). (BMC: Springer Nature). <https://doi.org/10.1186/s13071-024-06165-0>
- ❖ Asokan Dinesh, Mall Anjali, Sankhe Lalit, **Jaganathasamy Nagaraj**; Pardeshi, Geeta. Profile and Geospatial Analysis of Dog Bite Cases Attending the Antirabies Vaccine Outpatient Department at the Tertiary Level Hospital of Mumbai. Indian Journal of Public Health 68(2), 175-179(2024). DOI: 10.4103/ijph.ijph_1234_23

- ❖ **J. Nagaraj**, S. Parthasarathy, and C. Ponnuraja. Comparison of parametric frailty models under Lindley baseline distribution with applications to real-life data. *Journal of Applied Probability and Statistics* (2022), 17(3), 89-100
- ❖ Elangovan Arumugam, Aridoss Santhakumar, **Jaganathasamy Nagaraj**, Mathiyazhakan M, Adhikary RS, Murhekar MV. Why should the men who have sex with men population in India be vigilant for monkeypox infection? *Indian J Public Health* (2023); 67:178-80.
- ❖ Elangovan Arumugam, Santhakumar Aridoss, Malathi Mathiyazhakan, **Nagaraj Jaganathasamy**, et al., Sub-regional trend of HIV infection among antenatal clinic attendees in Andhra Pradesh (2003-2019). *Current HIV Research* (2022), 20(4):327-336
- ❖ Aridoss Santhakumar, Joseph K David, **Jaganathasamy Nagaraj**, Malathi Mathiyazhakan et al., Socio-Demographic and Behavioral Determinants of HIV prevalence among Homosexual and Bisexual Men having sex with men (MSM) in India: Integrated Bio-Behavioral Surveillance (2023). *African Health Sciences* 23(2), 67-80.
- ❖ Aridoss Santhakumar, David JK, **Jaganathasamy Nagaraj**, Mathiyazhakan M, Balasubramanian G, Natesan M, V.M. P, Kumar P, Rajan S, Elangovan Arumugam. Spatial heterogeneity of risk factors associated with HIV prevalence among men who inject drugs in India: An analysis of the data from the integrated Bio-Behavioral surveillance, India. *Medicine* (2022) ;101:48(e31688)
- ❖ Elangovan Arumugam, Santhakumar Aridoss, Joseph K. David, **Nagaraj Jaganathasamy**, Ganesh Balasubramanian et al. Injecting drug use and HIV prevalence among female sex workers: Evidence from the national integrated biological and behavioural surveillance (IBBS), India. *Indian Journal of Medical Research* (2022), 155 (3&4), 413-422
- ❖ **J. Nagaraj**, S. Parthasarathy and C. Ponnuraja, Lindley distribution as frailty models with application to lifetime data. *Advances and Applications in Statistics* 75 (2022), 119-134.
- ❖ Karthikeyan, R., Rupner, R.N., Koti, S.R. **Jaganathasamy Nagaraj** ,et al. Analysis of bluetongue disease epizootics in sheep of Andhra Pradesh, India using spatial and temporal autocorrelation. *Veterinary Research Communications* (2022), 46, 967-978
- ❖ Eapen A, Padmapriya VM, Ravi M, **Nagaraj J**, Kannan R, Mathiyazhakan M, et al. Impact of COVID-19 pandemic restrictions on the lifestyle of people in India and its public health concern: an online survey using mHealth. *Int J Community Med Public Health*, 2022; 9:1774-81
- ❖ Tazerji SS, Shahabinejad F, Tokasi M, Rad MA, Khan MS, Safdar M, Filipiak KJ, Szarpak L, Dzieciatkowski T, Jurgiel J, Duarte PM, Rahman MT, Sobur MA, Islam MS, Ahmed A, Shaheen MNF, Shehata AA, Gharieb R, Fawzy M, Malik YS, **Jaganathasamy Nagaraj**,

- et al., Global data analysis and risk factors associated with morbidity and mortality of COVID-19. *Gene Reports (2022) Mar; 26:101505. doi: 10.1016/j.genrep.2022.101505. PMID: 35071820,*
- ❖ P. Philip Samuel, Velayutham Thenmozhi, Sunil Kumar Mishra, **Jaganathasamy Nagaraj** and Rajaiiah Paramasivan. Seasonal abundance and infection of Japanese encephalitis vectors from Gorakhpur district, Uttar Pradesh, India. *J Vector Borne Dis* 58, September 2021, pp. 265-272
 - ❖ P Philip Samuel, R Govindarajan, R Krishnamoorthi, S Victor Jerald Leo, V Rajamannar and **Nagaraj J.** Dengue infection among tribal population in the Nilgiris District, Tamil Nadu, India. *J Vector Borne Dis* 58, June 2021, pp. 154-158
 - ❖ Arumugam E, David JK, Aridoss S, **Jaganathasamy Nagaraj**, Mathiyazhakan M, Balasubramanian G, Natesan M, Padmapriya VM, Kirubakaran BK, Patel S, Kumar P, Rajan S. An Analysis of Levels and Trends in HIV Prevalence Among Pregnant Women Attending Antenatal Clinics in Karnataka, South India, 2003-2019. *Int J MCH AIDS*. 2021;10(2):198-209. doi: 10.21106/ijma.520 PMID: 34804638; PMCID: PMC8590091.
 - ❖ Arumugam E, Rajkumar P, Dhanaraj B, Govindasamy E, **Jaganathasamy Nagaraj**, Mathiyazhakan M, et al. Determining pulmonary function and the associated risk factors among stone quarry workers in a suburban area of Chennai, Tamil Nadu, India. *Lung India* 2021; 38:558-63.
 - ❖ Malik, Y. S., Obli Rajendran, V., Ma, I., Pande, T., Ravichandran, K., **Jaganathasamy, Nagaraj**, Ganesh, B., Santhakumar, A., Tazerji, S. S., Rahman, M. T., Safdar, M., Dubal, Z. B., & Dhama, K.. Responses to COVID-19 in South Asian Association for Regional Cooperation (SAARC) countries in 2020, a data analysis during a world of crises. *Chaos, solitons, and fractals*, (2021),152, 111311. <https://doi.org/10.1016/j.chaos.2021.111311>
 - ❖ Elangovan, A., Eapen, A., Padmapriya, V.M., **Nagaraj, J.**, Kannan, R., Ravi, M., Santhakumar, A., Malathi, M., Elavarasu, G., & Merciline, D.A. Impact of Lockdown due to Covid-19 on the Lifestyle Changes of Employees in India: A Cross-sectional Analysis of Personnel Who Work at Office Versus Work from Home. *Asian Journal of Pharmaceutical Research and Health Care*. Volume 13, Issue 2, 2021 | <https://doi.org/10.18311/ajprhc/2021/27687>
 - ❖ Govindarajan R., Rajamannar V., Krishnamoorthi R., **Nagaraj J.** Ashwani K. and Philip Samuel P. Species composition of mites on pest rodents and shrews in Madurai, India. *HALTERES*, Volume 12, 61-68, 2021
 - ❖ Aridoss Santhakumar, Balasubramanian Ganesh, Mathiyazhakan Malathi, **Jaganathasamy Nagaraj**, Natesan Manikandan, V.M. Padmapriya, B.K. Kirubakaran, Chinnasamy Govindasamy, V. Ramachandran, Rajendran Sridhar, Pradeep Kumar,

- Shobini Rajan, Arumugam Elangovan . Confined vulnerability of HIV infection among pregnant women attending antenatal care clinics in Karnataka, India: Analysis of data from the HIV sentinel surveillance 2017. *Clinical Epidemiology and Global Health* (2020), 8, 1127–1133. <https://doi.org/10.1016/j.cegh.2020.04.003>
- ❖ Arumugam Elangovan, Vasna Joshua, Aridoss Santhakumar, Balasubramanian Ganesh, **Nagaraj Jaganathasamy**, Joseph K. David, Malathi Mathiyazhakan, Manikandan Natesan, VM Padmapriya, Pradeep Kumar. Identifying Risk Factors and Spatial Clustering of HIV Infection among Female Sex Workers in India: Evidence from Integrated Biological and Behavioural Surveillance (IBBS) 2014-2015. *International Journal of Translational Medical Research and Public Health* (2020), Volume 4, Issue 2, 133-145
 - ❖ Aridoss S, Mathiyazhakan M, **Jaganathasamy N**, Balsubramanian G, Natesan M, Padmapriya VM, *et al.* Heterogeneity and confinement of HIV prevalence among pregnant women calls for decentralized HIV interventions: Analysis of data from three rounds of HIV sentinel surveillance in Karnataka: 2013–2017. *Indian J Community Med* 2021;46:121-5
 - ❖ Paulraj Philip Samuel, Renu Govindarajan, Ranganathan Krishnamoorthi & **Jaganathasamy Nagaraj**. Ectoparasites of some wild rodents /shrews captured from Scrub typhus reported areas in Tamil Nadu, India, *International Journal of Acarology*, (2021), 47:3, 218-221, DOI: 10.1080/01647954.2021.1887932
 - ❖ Karthikeyan R, Rupner RN, Koti SR, **Jaganathasamy Nagaraj**, Malik YS, Sinha DK, Singh BR, Vinodh Kumar OR. Spatio-temporal and time series analysis of bluetongue outbreaks with environmental factors extracted from Google Earth Engine (GEE) in Andhra Pradesh, India. *Transboundary and Emerging Diseases* (2021), Nov;68(6):3631-3642. doi: 10.1111/tbed.13972. PMID: 33393214.
 - ❖ Balasubramanian Ganesh, Thangarasu Rajakumar, Mathiyazhakan Malathi, Natesan Manikandan, **Jaganathasamy Nagaraj**, Aridoss Santhakumar, Arumugam Elangovan, Yashpal Singh Malik, Epidemiology and pathobiology of SARS-CoV-2 (COVID-19) in comparison with SARS, MERS: An updated overview of current knowledge and future perspectives, *Clinical Epidemiology and Global Health*, 10, 2021,100694, <https://doi.org/10.1016/j.cegh.2020.100694>.
 - ❖ A. Santhakumar, **J. Nagaraj**, Joseph K David, Malathi Mathiyazhakan, B. Ganesh, N. Manikandan, VM Padmapriya, Kanagasabai, Elavarsu, Ravi, Bathyalan Nagaraju, Pradeep Kumar, Shobini Rajan, Arumugam Elangovan. Levels and trend of HIV prevalence among pregnant women in Tamil Nadu: Analysis of data from HIV sentinel surveillance (2003 – 2019). *Clinical Epidemiology and Global Health* 9 (2021). 280-288
 - ❖ Santhakumar Aridoss, **Nagaraj Jaganathasamy**, Arvind Kumar, Manikandan Natesan, Rajatashuvra Adhikary, Elangovan Arumugam. Socio-demographic Factors Associated

with HIV Prevalence among Pregnant Women Attending Antenatal Clinics in Six Southern States of India: Evidences from the Latest Round of HIV Sentinel Surveillance. *Indian J Public Health; (2020), 64: S26-31*

- ❖ Padmapriya VM, Kavitha B, Sivapathasundram B, **Nagaraj J**. Comparison of cytokeratin expressions among orthokeratinized odontogenic cysts, epidermoid cysts and odontogenic keratocysts: An immunohistochemical study. *J Oral Maxillofac Pathol (2020); 24:472-8.*
- ❖ Santhakumar A, Mathiyazhakan M, **Nagaraj J**, Ganesh B, Manikandan N, Padmapriya VM, Monika A, David JK, Kumar A, Arumugam E. Prevalence and Risk Factors Associated with HIV Infection among Pregnant Women in Odisha State, India. *Int J MCH AIDS. 2020; 9(3):411-420.*
- ❖ Kumar Pradeep, Aridoss Santhakumar, Mathiyazhakan Malathi, Balasubramanian, Ganesh, **Jaganathasamy Nagaraj**; Natesan Manikandan, V.M., Padmapriya, David, Joseph K, Rajan, Shobini, Adhikary, Rajatashuvra, Arumugam Elangovan . Substance use and risk of HIV infection among Men who have Sex with Men in India: Analysis of National IBBS data, India. *Medicine 2020; 99:35 (e21360).*
- ❖ Dhivya Ashok Kumar, Amar Agarwal, and **Nagaraj Jaganathasamy** Densitometry Analysis of Corneal Backscatter after Pre-Descemet Endothelial Keratoplasty for Pseudophakic Bullous Keratopathy. *Cornea; (2020). 39(1): 30-38*
- ❖ Priya Narang, Jack Holladay, Amar Agarwal, **Nagaraj Jaganathasamy**, Dhivya Ashok Kumar and Soundari Sivagnanam (2019). Application of Purkinje images for Pinhole Pupilloplasty (PPP) and relevance with Chord Length mu. *Journal of Cataract and Refractive Surgery (2019). Volume 45 Issue 6*
- ❖ Dhivya Ashok Kumar, Amar Agarwal, Radhika Chandrasekar, **Nagaraj Jaganathasamy**. Iris and knot Configuration after single pass four throw (SFT) pupilloplasty as imaged by the spectral-domain optical coherence tomography. *Indian Journal of Ophthalmology, 67(2); February 1, 2019, PP 209-212. DOI:10.4103/ijo.IJO_885_18*
- ❖ **Nagaraj J**, Vijayapushpam T, Gayathri K, Balusamy, Mahesh Rajan H and R Vijayaprabha (2018). A historical comparative research on vector-borne disease: An Indian scenario. *International Journal of Mosquito Research. 2018; 5(6): 15-21*
- ❖ Manoj Murhekar, Ashish Bavdekar, Asha Benakappa,, **Naga Raj**, Jagat Ram, R K Ratho, C.G. Raut, Manoj Kumar Rohit, R. Sabarinathan, Sanjay Shah, PratibhaSingh, Mini P Singh, Ashish Tiwari, NeelamVaid . Sentinel Surveillance for Congenital Rubella Syndrome - India, 2016–2017. *Morbidity and Mortality Weekly Report (2018). September 14, Vol-67 :No:36*

- ❖ Divya E Muliylil; Pratibha Singh; Srinivas K Jois., **Naga Raj**, R. Sabarinathan, Ravinder Kaur Sachdeva; Suji George; Shyama Chaudhary; Valsan P Verghese Vishal Jagtap, Manoj Murhekar. Sero-prevalence of rubella among pregnant women in India. *Vaccine* (2018), 36 (52). 7909-7912 <https://doi.org/10.1016/j.vaccine.2018.11.013>
- ❖ Philip Samuel P, Thenmozhi V, Muniyaraj M, Ramesh D, Victor Jerald Leo S, Balaji T, Venkatasubramani K, **Nagaraj J** and Paramasivan R (2018). Changing paradigm in the epidemiology of Japanese encephalitis in a non-endemic region. *J Vector Borne Diseases* (2018) : 55; 203-207.
- ❖ P. Philip Samuel, D. Ramesh, V. Thenmozhi, **J Nagaraj**, M. Muniaraj, N. Arunachalam (2016). Japanese Encephalitis vector abundance and infection frequency in Cuddalore District, Tamil Nadu, India: a five-year longitudinal study. *Journal of Entomological and Acarological Research* (2016); volume 48:5630
- ❖ P. Philip Samuel, V. Thenmozhi, **J Nagaraj**, D. Ramesh, M. Muniaraj and N. Arunachalam. Determination of critical density in *Culex tritaeniorhynchus* Giles, 1901 (Diptera: Culicidae) as a deciding factor influencing the transmission of Japanese encephalitis virus in southern India. *Entomon* 41(2): 125-138 (2016). Article No. ent. 41208.
- ❖ I. P. Sunish, M. Kalimuthu, V. Ashok Kumar, A. Munirathinam, **J Nagaraj**, B. K. Tyagi, Graham B. White and N. Arunachalam. Can community-based integrated vector control hasten the process of LF elimination? *Parasitology Research*. 2016, Volume 115, Issue 6, pp 2353-2362. DOI 10.1007/s00436-016-4985-6.
- ❖ P. Philip Samuel, S. Victor Jerald Leo, R. Govindarajan, R. Sathish Babh, **J Nagaraj**, Dilip Kumar and N. Arunachalam. Anthropophilic Behavior of *Aedes albopictus*: A Predominant Vector of Dengue/Chikungunya in Thiruvananthapuram district, Kerala, South India. *Journal of Communicable Diseases, March 2016, 48 (1), 1-11*.
- ❖ D. Ramesh, M. Muniaraj P. Philip Samuel, V. Thenmozhi, A. Venkatesh, **J Nagaraj** and B. K. Tyagi (2015). Seasonal abundance and the role of JE vectors *Cx. tritaeniorhynchus* and *Cx. gelidus* in Cuddalore district, Tamil Nadu. *Indian Journal of Medical Research* (2015). 142 (S), 23-29. DOI:10.4103/0971-5916.176607
- ❖ Sunish IP, Rajendran R, Munirathnam A, Kalimuthu M, Ashok Kumar V, **Nagaraj J** and Tyagi Bk (2015). Impact on prevalence of intestinal helminth infection in school children administered with seven annual rounds of diethyl carbamazepine (DEC) with albendazole. *Indian Journal of Medical Research* (2015), 141, 330-339
- ❖ IP Sunish, M Kalimuthu, R Rajendran, A Munirathinam, V Ashokkumar, **J Nagaraj** and BK Tyagi (2015). Decline in lymphatic filariasis transmission with annual mass drug

administration using DEC with and without albendazole over a 10 year period in south India. *Parasitology International* (2015), Feb. 64 (1); 1–4.

- ❖ M. Kalimuthu, IP Sunish, J **Nagaraj**, A.Munirathinam, V. Ashok Kumar, N.Arunachalam, G.B. White,BK. Tyagi. Residual microfilaraemia in rural pockets of south India after five rounds of DEC plus albendazole administered as part of the LF elimination campaign. *J Vector Borne Diseases* (2015), 52, 182–184.
- ❖ P. Philip Samuel, V. Thenmozhi, J **Nagaraj**, T. Dilip Kumar and B. K. Tyagi. Dengue vectors prevalence and the related risk factors involved in the transmission of dengue in Thiruvananthapuram district, Kerela, South India. *Journal of vector-borne diseases* (2014), 51(4), Dec, 313-319.

Books/Book Chapters

- ❖ I. P. Sunish, M. Kalimuthu, Ashok Kumar, R. Rajendran, A. Munirathinam, **Nagaraj**, N. Arunachalam, B. K. Tyagi. Integrated Vector Control for the Elimination of Bancroftian Filariasis in the Villages of Tirukoilur, South India. In: Tyagi B.K (eds) *Lymphatic Filariasis (2018)*. pp 185-192 DOI: 10.1007/978-981-13-1391-2_14.Springer, Singapore (Book Chapter)
- ❖ Tyagi BK, Sunish IP, Arunachalam N, Kalimuthu M, Munirathinam A, Ashokkumar V, **Nagaraj J**. The Tirukoilur project. A report of the “Assessment of the added impact of vector control for argumentation of MDA to eliminate Lymphatic Filariasis in South India & associated studies. Centre for Research in Medical Entomology (ICMR), Edi: 2014; PP 1-297.
- ❖ Elangovan A, Ganesh B, Santhakumar A, Manikandan N, **Nagaraj J**, V.M. Padmapriya, Malathi Mathiyazhakan, P. Richard Rajkumar, HIV Sentinel Surveillance (ANC): Andhra Pradesh, Tamil Nadu, Telangana, Odisha Karnataka, Kerala State Reports. *ICMR-National Institute of Epidemiology* (2019). ISSN nos.: 2583-3618; 2583-3634; 2583-2336; 2583-3650; 2583-3642 & 2583-3685

Awards & Achievements

- ❖ Best oral presentation Award for the paper entitled " A comparative study of frailty models using Power-Lindley distribution as a baseline with application to time-to-event data", Workshop on “2nd National Conference of Tamil Nadu Statistical Association (TNSA)” organized by Dept. of Statistics, ICMR-National Institute for Research in Tuberculosis, Chennai (17-18 March 2023)
- ❖ Best Student Award (2007): Govt. Arts and Science College, Udumalpet, TN

Conferences/workshops

International

- ❖ Shajitha Parveen H, **Nagaraj Jaganathasamy** et al., Correlation of OCTA Macula Microcirculation with Visual Field Changes in Primary Open Angle Glaucoma. *AIOC 2022 (80th Annual Conference of All India Ophthalmological Society)*
- ❖ VinodhKumar O. R, **J. Nagaraj**, Ganesh Balasubramanian, et al., Gravity model, Epidemiology and Real-time reproduction number (Rt) estimation of Covid-19 pandemic in South Asian Association for Regional Cooperation (SAARC). *International e-Conference on Immunology in 21st Century for Improvising One-Health At: 2020 (Society of Immunology and Immunopathology, India) (ISBN: 9789354086649)*
- ❖ Elangovan Ramya, Joseph C. Daniel, P.V.Geetha, R.Usha Natesan Manikandan, P.Kamaraj, **J Nagaraj**, C.P.Venil. A study on the distribution of Human Immunodeficiency Virus (HIV) and Syphilis infection and associated risk factors among the Irula Tribal Community of Tamil Nadu State, India. (Abstract 52) *BMC Infectious Diseases, (2020). 20(Suppl 1):324 (ISBN : 1471-2334)*

National

- ❖ Presented (2023) in the 2nd **National Conference of Tamil Nadu Statistical Association (TNSA) workshop** organized by the Dept. of Statistics, ICMR-National Institute for Research in Tuberculosis, Chennai.
- ❖ Presented (2022) in the workshop on **Capacity building training workshop on the use of Geographical Information System (GIS) in Public Health** with a focus on HIV/AIDS organised by WHO and ICMR- ICMR-National Institute of Epidemiology, Chennai
- ❖ Presented (2022) in the Workshop on **National Conference on Advancements in Interdisciplinary Research (NCAIR)** Organized by Amiruddaula Islamia Degree College, Lucknow, UP & Science-Tech Institute, Lucknow.
- ❖ Participated (2021) in the workshop on conference **Survival Analysis** organized by Dept. of Statistics, ICMR-National Institute for Research in Tuberculosis, Chennai (2021)
- ❖ Participated (2021) in the workshop on the Introductory Course on **Systematic Reviews** and Meta-Analysis at ICMR-National Institute of Epidemiology, Chennai.
- ❖ Participated (2017) in the “**GIS for public health practitioners and researchers**” workshop on 6th-8th December at ICMR-National Institute of Epidemiology, Chennai.
- ❖ Participated (in series 2011,2012,2013 & 2014) in the **Conference of Medical Arthropodology**. Centre for Research in Medical Entomology at Madurai.