

VARUNKUMAR THIYAGARAJAN

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CAREER OBJECTIVE

Biostatistician, looking for a position that offers me an opportunity for advancement in my career endeavours, where I can utilize my current technical skills and knowledge under the senior's supervision who can take the best out of me and gives me a chance for my innovative work as well for mutual beneficial results.

SUMMARY

- **Biostatistician** with 4+ years of experience with a strong emphasis in research studies and thorough knowledge of observational studies.
- Proficiency in the understanding of Study Protocols, SAP (Statistical Analysis Plan), and CRF's
- Report results of the statistical analyses in the form of graphs, charts, and tables like
 - ❖ Correlation
 - ❖ Simple linear regression and multiple linear regression
 - ❖ Chi-square test
 - ❖ Logistic regression , Poisson regression
 - ❖ ANOVA , ANACOVA , MANOVA
 - ❖ T-Test (Independent sample T-test , Paired sample T-test)
 - ❖ Manwhitney-U-test , Wilcoxon sign rank test, Kruskal Wallis
 - ❖ Repeated measure ANOVA
 - ❖ Linear mixed effect model
 - ❖ Diagnostic test (Sensitivity , Specificity)
 - ❖ Bar chart , Pie chart , Scatter plot , Box plot , Line graph , stacked bar chart
- Data management skills to handle large datasets from multiple sources. I have used codes like
 - ❖ Importing raw data file into SAS - **Proc import , Infile statement**
 - ❖ Rename the variable - **Rename statement**
 - ❖ Converting numeric to character and vice versa - **Input and Put**
 - ❖ Concatenate the variables - **Cat , Catx, Cats**
 - ❖ Append, merge , transpose the dataset - **Proc Append , Set , Proc Transpose, Merge**
 - ❖ Edit checks to find invalid and missing data - **If , If-else , Where conditions**
 - ❖ Character function - **Trim, Strip, Compress, Compbl, Index , Translate, Tranwrd**
 - ❖ Numeric function - **Arithmetic Operations , Round , Ceil, Floor**
 - ❖ Removing duplicates - **Nodup, Nodupkey**
 - ❖ Date and time formats - **Informat , Format**
- Good knowledge of using Base/SAS, PROC SQL , SAS-STAT

- Quick learner and excellent team player, consistently meet the deadlines and can work under pressure
- Strong knowledge in resolving issues, communication, and interpersonal skills with the ability to interact with individuals at all levels
- Highly motivated individual with excellent organizational and interpersonal skills

PROFESSIONAL EXPERIENCE

Research Assistant –Biostatistician (4.5 Years)

Christian Medical College & Hospital, Vellore

Dec2016 – Present

Responsibilities in Statistical Analysis

- Analyse and interpret the data for scientific communication
- Calculate sample size for research studies
- Create tables and figures for research papers
- Review Statistical Analysis Plans (SAPs) based on the protocol, including the development of well-presented mock-up displays for tables and graphs
- Interim analysis to ensure the study flow
- Ensure team members adhere to the SOPs, guidelines, and local working instructions
- Advise programmer staff on database design and validation checks

Responsibilities in Data Management

- Develop automated SAS programs to identify the invalid data and missing data
- Carry out data cleaning for assigned studies
- As a team member of the central data management team, identify discrepancies, raise queries to sites, and follow until resolution
- Collaborate with team members of project teams to establish project timelines
- Generate study reports for project management
- Train the sites on form filling guidelines including Case Report Forms (CRFs)

PROJECT CONTRIBUTION

Involved in Data management and Statistical Analysis for the following studies

- Rotavirus vaccine impact assessment surveillance in India - **Test negative control Study**
- Intussusception surveillance - **Case-control study**
- Soil transmitted helminth - **Cross-sectional study**
- Burden of asymptomatic dengue infections in hyper-endemic urban setting - **Cohort study**

PROGRAMMING AND SOFTWARE

- Statistical Analysis System (SAS) -Working knowledge
- STATA -Working knowledge
- R programming language - Basic knowledge
- Microsoft Office tools (Word, Excel, PowerPoint)

EDUCATIONAL QUALIFICATION

- Master's degree in statistics, PSG College of Arts and Science, Coimbatore in the year 2016 with an aggregate of 69%.
- Bachelor's degree in statistics, PSG College of Arts and Science, Coimbatore in the year 2014 with an aggregate of 62%.

WORKSHOPS & SHORT COURSES

- SAS (**Statistical Analysis System**) software training GITS Academy, Bangalore.
- Workshop on “**ICH-GCP guidelines and its principles**” organised by department of research, CMC, Vellore.
- A short course in biostatistics “**Fundamentals of Biostatistics, Principles of Epidemiology**” organised by department of biostatistics, CMC, Vellore.
- A Short course in biostatistics “**Multiple Linear Regression, Logistic Regression and Survival Analysis**” organised by department of biostatistics, CMC, Vellore.

CONFERENCES

- Attended conferences for Rotavirus vaccine impact assessment and Intussusception surveillance at Delhi in the years of 2017, 2018 and 2019 which was organized by Bill and Melinda Gates foundation.

PUBLICATIONS

- Samarasimha N Reddy, Nayana P Nair, Jacqueline E Tate, **Varunkumar Thiyagarajan**, Sidhartha Giri, Gagandeep Kang, et al. “**Intussusception after Rotavirus Vaccine Introduction in India**”. *New England Journal of Medicine*. 10.1056/NEJMoa2002276
- Subal Kumar Pradhan, Sumanta Panigrahi, Pooja Sagar Padhi, **Varunkumar Thiyagarajan**, Saroj Kumar Satpathy. “**Genetic Characteristics of Rotavirus Acute Gastroenteritis Among Hospitalized Children of Odisha in Eastern India**”. 10.1007/s12098-020-03610-7
- Prasantajyoti Mohanty, Dilesh Kumar, Asit Mansingh, **Varunkumar Thiyagarajan**, Samarasimha Reddy N, Rajib Kumar Ray. “**Rotavirus Gastroenteritis Hospitalizations Among Under-Five Children in Bhubaneswar, Odisha, India**”. 10.1007/s12098-020-03607-2
- Suraj Chawla, Anil Kumar Goel, **Varunkumar Thiyagarajan**, Nayana P Nair. “**Nutritional Assessment and its Association with Rotavirus Positivity Among Under Five Children Admitted with Diarrhea in a Tertiary Care Hospital of Southern Haryana, India**”. 10.1007/s12098-020-03611-6
- R K Gupta, Shailja Vajpayee, Ruchi Agrawal, Alok Kumar Goyal, Nayana P Nair, **Varunkumar Thiyagarajan**. “**Post Vaccination Epidemiology and Genotyping of Rotavirus Gastroenteritis at a Tertiary Care Centre of North-East Rajasthan**”. 10.1007/s12098-020-03569-5

DECLARATION

- I do hereby declare that the above information is true to the best of my knowledge.