

Monica Chaudhari

monicach@crab.org

SUMMARY

Biostatistician with more than 10 years of consulting experience providing methodological, analytical and statistical support in the clinical trial design and execution, epidemiologic research or survival outcomes and analysis. Offer proven ability to work independently and collaborate cross-functionally towards timely delivery of multiple, concurrent projects; to clearly articulate complicated statistical concepts to non-statisticians, assist in manuscript preparation, give oral presentations, review grants, present and chair at professional association meetings and seminars as appropriate.

SKILLS

- Statistical Languages: R, STATA, SAS
- Data Management: SQL
- Bayesian: WINBUGS
- Clinical Design - SMART trials; Survival Analysis; Stochastic Differential Models; Mixed Effect and Longitudinal data models; Missing data; Markov models

ACCOMPLISHMENTS

Academic

- Recipient of non-service NIH Summer Traineeship Award (2016-2017). Lead a team towards completion of Type 1 Diabetes to learn complex dynamics of the system and to predict blood glucose levels in future for better management of Type 1 diabetes. The project involved one-step and multi-step ahead predictions using Nonlinear Autoregressive Network with Exogenous Inputs (NARX) Neural Networks.
- Recipient of the National Non-service NIH T32 BD2K Pre-doctoral Traineeship Award (2016-2017).

Work Related

- Led a cross-organizational project on behalf of WDS in collaboration with a team of investigators at GHRI. The aim of the project was to assess association between diabetes and periodontitis on health outcomes, medical and dental costs using medical and dental claims data with millions of records. This project entailed linking and extracting the right data elements, validating administrative data for the purposes of clinical definition, conducting analyses to test pre-specified hypotheses and developing new statistical techniques to deal with the idiosyncrasies of dental utilization and cost data. The entire project resulted in five published manuscripts, one of which was authored by me.

ACTIVITIES AND HONORS

- Chaired a Contributed Session on Personalized Medicine at ENAR 2017.
- Member of IBS, ASA, AAAS

PUBLICATIONS

- Chaudhari M, Theis MK, Reid RJ, Chaudhari M. 2010. Case Study of Linking Dental and Medical Healthcare Records. *Am J Manag Care*. 16(2):000-000
- Spangler L, Chaudhari M, Barlow WE, Newton KM, Inge R, Hujoel P, Genco R and Reid RJ. 2011. Using Administrative Data for Epidemiologic Research: Case Study to Identify Persons with Periodontitis. *Periodontology* 2000, 58: 143–152. DOI: 10.1111/j.1600-0757.2011.00422.x
- Spangler L, Reid RJ, Inge R, Newton KM, Hujoel P, Chaudhari M, Genco RJ and Barlow WE. 2010. Cross-Sectional Study of Periodontal Care and Glycosylated Hemoglobin in an Insured Population. *Diabetes Care*. 33:1753-1758

- Newton KM, Chaudhari M, Barlow WE, Inge R, Theis MK, Spangler L, Hujoel P, Reid RJ. 2011. A Population-Based Study of Periodontal Care among those with and without Diabetes. *Journal of Periodontology*; 82(12):1650-6. DOI: 10.1902/jop.2011.100609
- Chaudhari M, Hubbard R, Inge R, Reid RJ, Spangler L, Newton KM, Barlow WE. 2012. Evaluating components of dental utilization among adults with diabetes and matched controls via hurdle models. *BMC Oral Health* 2012, 12:20. DOI i: 10.1186/1472-6831-12-20. url: <http://www.biomedcentral.com/1472-6831/12/20>
- Authored a chapter for the book called "Integration of Medical and Dental Care and Patient Data" published by Springer under "Health Informatics" series.
- Hilt R, Chaudhari M, Wolf C, Bell J, Koprowicz K, King B. 2014. Side effects from use of one or more psychiatric medications in a population-based sample of children and adolescents. *J Child Adolesc Psychopharmacol.* Mar;24(2):83-9. DOI: 10.1089/cap.2013.0036. Epub 2014 Feb 7
- Mease P, Heredia E, Saunders K, Shuler C, Zhu B, Chaudhari M, Greenberg JD. 2013. Clinical characteristics of Patients who switch Biologic Therapy within the first two years: Results from a Large US Registry Population. *Arthritis Rheum.* 65 Suppl 10: 328. DOI:10.1002/art.2013.65.issue-S10
- Mease P, Collier D, Saunders KC, Grant S, Bitman B, Chaudhari M, Greenberg J. Biologic Therapy, Time to Low Disease Activity, and Effect of Mono Vs. Background Oral DMARD Therapy Among Psoriatic Arthritis Patients in a US Registry. *Ann Rheum Dis* 2013;72 (Suppl3):671.
- Co-authored a chapter "A Master Pipeline for Discovery and Validation of Biomarkers" for Holzinger, A. (ed.) 2016. *Machine Learning for Health Informatics: State-of-the-Art and Future Challenges*, Springer Lecture Notes in Artificial Intelligence LNAI 9605, doi:10.1007/978-3-319-50478-0
- Chaudhari M, Kim EH, Withana Gamage PW, McMahan CS, Kosorok MR. Study design with staggered sampling times for evaluating sustained unresponsiveness to peanut sublingual immunotherapy. *Statistics in Medicine.* 2018;1–15. <https://doi.org/10.1002/sim.7857>.

WORK HISTORY

CANCER RESEARCH AND BIOSTATISTICS (CRAB) Senior Biostatistician	Seattle, WA 06/2018 - Present
TRANSLATIONAL AND CLINICAL SCIENCES (TraCS) INSTITUTE, UNC Primary Biostatistician on NIAID Funded Study (<i>GRA with full time DrPH</i>)	Chapel Hill, NC 08/2015 – 12/2017
DEPARTMENT OF OBSTETRICS AND GYNECOLOGY, UNC Biostatistics Consultant (<i>with full time DrPH</i>)	Chapel Hill, NC 08/2014 - 04/2015
RHO, INC. Biostatistician (<i>GRA with full time DrPH</i>)	Chapel Hill, NC 08/2014 - 04/2015
AXIO RESEARCH LLC Biostatistician (<i>Full time. Reason for leaving: had an offer from 2012 to join DrPH at the UNC.</i>)	Seattle, WA 02/2012 - 08/2013
GROUP HEALTH RESEARCH INSTITUTE Biostatistics Consultant (<i>with full time at WDS</i>)	Seattle, WA 01/2008 - 07/2011
WASHINGTON DENTAL SERVICE (DELTA DENTAL) Health Systems Analyst (<i>Full time. Reason for leaving: new opportunity and plans to pursue Doctorate</i>)	Seattle, WA 07/2006 - 04/2011

EDUCATION AND TRAINING

DrPH: BIOSTATISTICS Dec., 2017
University of North Carolina, Chapel Hill, NC

MS: BIOSTATISTICS June, 2006
University of Washington, Seattle, WA

MMS (MASTERS OF MANAGEMENT STUDIES): INFORMATION SYSTEMS June, 1999
Malaviya National Institute of Technology, Jaipur, India

BSC: PHYSICS, MATHEMATICS, STATISTICS June, 1997
Maharani's College, Jaipur, India