MICHAEL ROYCE TAN, MPH, BSN, RN

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PROFESSIONAL SUMMARY

Healthcare professional with seven years of nursing experience and developing expertise in clinical research and health data analytics, combining direct patient care background in care coordination, clinical assessment, and multidisciplinary collaboration with MPH training in epidemiology, biostatistics, and health data science.

What drives me: Bringing structure to complex healthcare challenges while ensuring patient-centered care remains central to data-driven decisions. Developing strong ability to translate complex health data into actionable insights by bridging clinical knowledge with analytical methods. Focused on contributing to evidence-based healthcare improvement through clinical research, data analytics, and population health insights.

CLINICAL RESEARCH & DATA ANALYSIS PROJECTS

Research Analysis | California Teachers Study, City of Hope *(2025)*

Longitudinal Cohort Analysis using SAS. | Project Portfolio | CTS Blog

- Analyzed 130,000-participant dataset spanning 20+ years (2000-2022) using advanced SAS statistical methods
- Discovered significant longevity patterns among study participants with implications for healthy aging research
- Collaborated with senior researchers on methodology refinement and comprehensive research report production

Healthcare Operations Analysis | MPH Coursework *(2025)*

Data Analysis using R | Project Portfolio

- Evaluated patient encounters to identify operational inefficiencies and clinical outcome patterns
- Revealed critical profitability gaps through advanced ggplot2 visualizations
- Delivered strategic recommendations for healthcare operations improvement based on statistical analysis

Implementation Science Project: AI Healthcare Integration | MPH Coursework *(2025)*

CFIR Framework Application | Project Portfolio

- Developed implementation strategy for AI preoperative care companion using CFIR framework
- Designed multi-level evaluation framework across implementation, service, and patient outcomes
- Applied ERIC strategies to create actionable implementation proposal for knee replacement surgery patients

Public Health Data Analysis | Alaska Department of Health *(2024)*

GIS-Based Health Dashboard Development | Project Portfolio

- Built interactive ArcGIS dashboard integrating public health datasets for oral health program
- Conducted spatial analysis correlating demographic factors with healthcare access patterns
- Delivered stakeholder visualization tools that streamlined regional health information access

Professional Experience

Student Coordinator | University of Michigan School of Public Health *(2024 – Present)*

- Optimize learning systems for students using data-driven approaches to improve academic outcomes
- Collaborate with faculty on evidence-based instructional design and academic operations
- Support program administration while completing MPH coursework

Graduate Studies & Research Development *(2022 – 2024)*

- Completed Master of Public Health with focus on applied epidemiology and health data science
- Building technical skills in R, SAS, and statistical programming

Clinical Device Training & Operations Specialist | Inovio Pharmaceuticals *(2021 – 2022)*

- Conducted protocol training sessions to support consistent implementation and GCP adherence
- Developed comprehensive training programs and SOPs that enhanced clinician competency and patient safety across pharmaceutical trials
- Collaborated with executive teams including clinical operations, regulatory affairs, and data management to optimize EDC systems for DNA medicine development
- Led clinical trial optimization across multiple sites, analyzing device performance data to ensure protocol compliance and operational excellence
- Monitored adverse events and applied clinical judgment to flag safety concerns and recommend protocol refinements

Career Exploration & Professional Development *(2019 – 2021)*

- Strategic career pivot from direct patient care to clinical research through targeted skill development
- Built professional network and industry knowledge that facilitated successful transition to specialized pharmaceutical role at Inovio

Registered Nurse | Orlando Health *(2012 – 2019)*

RN–Cardiac Stress Lab *(2017 – 2019)*

- Managed care for 15–20 high-risk cardiac patients daily, performing clinical assessments, ECG interpretation, and continuous monitoring
- Assisted cardiologists with nuclear, exercise, and pharmacological stress testing procedures
- Educated patients and families on cardiac conditions and post-procedure care while ensuring accurate documentation and safety protocol adherence

RN–Cardiac Evaluation *(2013 – 2017)*

- Managed complex cardiac cases, performing comprehensive assessments and monitoring
- Coordinated care across cardiology, radiology, and primary teams, ensuring smooth transitions between emergency, inpatient, and outpatient settings
- Mentored new nurses and students in cardiac care, supporting clinical skill development and team integration

RN–Neuroscience *(2012 – 2013)*

- Performed comprehensive neurological assessments for stroke and traumatic brain injury patients, monitoring for clinical changes and implementing evidence-based protocols
- Collaborated with multidisciplinary teams—including PT, OT, and speech therapy—to coordinate holistic, patient-centered care
- Educated patients and families on neurological conditions, treatment plans, and recovery expectations

CORE COMPETENCIES

Clinical Research: Protocol implementation, GCP compliance, clinical trial coordination, regulatory documentation, adverse event monitoring, multi-site operations, cross-functional team collaboration

Statistical & Data Analysis: R programming, SAS programming, epidemiological methods, regression modeling, survival analysis, data visualization (ggplot2, SAS Viya), longitudinal data analysis

Healthcare Operations: Patient care coordination, clinical assessment protocols, medication administration, medical documentation systems (Epic, Allscripts), EDC platforms, quality assurance, evidence-based practice, Cardiac monitoring, ECG interpretation, stress testing procedures, arrhythmia recognition, stroke protocols, emergency response, quality improvement, discharge planning, infection prevention

Leadership & Communication: Team mentoring, stakeholder collaboration, training program development, clinical protocol education, patient/family education, multidisciplinary care coordination

EDUCATION

Master of Public Health (MPH) | Population & Health Science
University of Michigan–Ann Arbor, MI | 2025

Focus: Applied Epidemiology, Health Policy, Biostatistics, Population Health Management, Healthcare Systems

Bachelor of Science in Nursing (BSN)
University of Central Florida | Orlando, FL

SPECIALIZED TRAINING

- SAS Programming & SAS Viya Visual Statistic | SAS, 2025 (in-progress)
- Data Science Professional | Harvard University, 2023
- Statistical Analysis with R for Public Health | Imperial College London, 2024

LICENSES

- Registered Nurse, BSN, Nurse Licensure Compact
- Advanced Cardiac Life Support, American Heart Association
- Basic Life Support, American Heart Association

ASSOCIATIONS

American Nurses Association, American Public Health Association