

JOSHUA MORRISON

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EXPERIENCE

National Committee for Quality Assurance (NCQA)

Data Scientist II

Washington, DC

Jul 2024 – Present

- Compared performance of commercial, Medicare, and Medicaid health plans with statistical analyses of Healthcare Effectiveness Data and Information Set (HEDIS) submissions and prepared summaries of HEDIS performance for federal agencies such as CMS
- Developed phenotyping algorithms to determine the disease state of patients from diagnoses (*e.g.*, ICD-10), medications (*e.g.*, RxNorm), and procedures (*e.g.*, HCPCS) in electronic medical records and medical claims
- Evaluated proposed changes to HEDIS measure specifications (in **R**) with data queried from Optum commercial and Medicare medical claims databases and provided publication-ready summaries of results to knowledge centers
- Provided subject matter expertise to interdisciplinary teams of clinicians, data scientists, and researchers to support the development of innovative healthcare quality measures (*e.g.*, HEDIS) that improved healthcare delivery for patients with chronic conditions such as end-stage renal disease
- Reduced dozens of hours hands-on coding—annually—by using AI tools to generate synthetic datasets (in **Python**) requested by IT to test yearly updates to online application used by health plans to submit their performance results

DaVita Kidney Care

Data Scientist I

Sr. Clinical Data Analyst

Clinical Data Analyst

Denver, CO

Aug 2023 – Jul 2024

Jun 2021 – Aug 2023

Jun 2019 – Jun 2021

- Collaborated with disparate teams across the company (*e.g.*, Human Resources and Payroll) to identify novel data sources—including unstructured data sources—to inform clinical decision support tools
- Coordinated Scientific Review Board, composed of an interdisciplinary team of clinicians, data scientists, and researchers, that collaborated with corporate leadership to ensure scientifically accurate reporting of results from clinical studies
- Developed classification model (in **R**) to identify clinics most in-need of additional teammate resources (*i.e.*, staffing), generated model diagnostics, and presented results to corporate leadership including the CMO
- Saved over 100 hours of manual data movement (annually) by translating legacy **SAS** code used by the national infection surveillance program into efficient **SQL** queries embedded directly into stakeholder-facing **Tableau** dashboards
- Evaluated the effectiveness of innovative treatment modalities with retrospective analyses of healthcare quality measures (*e.g.*, hospital admissions) using data from Medicare claims and electronic medical records

Colorado School of Public Health

Teaching Assistant (Biostatistics II)

Aurora, CO

Jan 2019 – May 2019

- Demonstrated Base **SAS** software to Biostatistics II students and guided students in generating (and interpreting) **SAS** output (*e.g.*, ANOVA tables) for their assignments
- Offered individual instruction to over 100 graduate-level biostatistics and epidemiology students and ensured timely grading of assignments and midterm examinations
- Reviewed statistical topics including hypothesis testing, multiple and logistic regression, model diagnostics, and survival methods including cumulative survival (Kaplan-Meier) and Cox proportional hazards regression

Colorado School of Public Health

Graduate Student Assistant

Aurora, CO

Jun 2018

- Advanced health equity for over 80,000 CO residents affected by per- and polyfluoroalkyls in water supply
- Ensured that over 200 participants met (and adhered to) eligibility criteria for year-long research study
- Surveyed residents in El Paso Co. to assess their exposure to per- and polyfluoroalkyls in water supply

MDGuidelines

Jr. Informatics Analyst

Westminster, CO

May 2018 – May 2019

- Developed longitudinal models (in **R**) with propensity score weighting (IPTW) to measure association between clinical depression and employee absence and presented results at AMIA Informatics Summit (2019)

- Supported outcomes research by writing **SQL** queries to pull disability claims from IBM's MarketScan CCAE disability claims database, then prepared (*i.e.*, cleaned) and filtered records according to cohort definitions provided by lead epidemiologist

EDUCATION

University of Colorado <i>Bachelor of Science (BS), Computer Science, Data Science concentration</i>	Boulder, CO <i>May 2026</i>
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Colorado School of Public Health <i>Master of Public Health (MPH), Biostatistics concentration</i>	Aurora, CO <i>May 2019</i>
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University of Colorado Denver <i>Bachelor of Science (BS), Mathematics minor</i>	Denver, CO <i>May 2015</i>
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CERTIFICATIONS

Tableau Desktop Certified Associate	<i>Aug 2023</i>
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Biotechnology Certificate <i>University of Colorado Denver</i>	Denver, CO <i>May 2019</i>
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PRESENTATIONS & PUBLICATIONS

- Morrison, Joshua W.**, MPH; Liu, Daniel; Mahoney, David, MD, FASN, FASDIN; Giullian, Jeffrey A., MD, MBA (2020). *Inpatient Dialysis Provider Type & Duration of Hospital Admissions of Dialysis Patients*. Presented to the American Society of Nephrology's Kidney Week 2020.
- Gaspar, Fraser F., MPH, PhD; Wizner, Kerri, MPH; **Morrison, Joshua W.**, MPH; Dewa, Carolyn S., MPH, PhD (2020). *Influence of Antidepressant & Psychotherapy Treatment Adherence on Future Work Leaves for Patients with Major Depressive Disorder*. BMC Psychiatry.
- Morrison, Joshua W.**, MPH; Gaspar, Fraser F., MPH, PhD; & Dewa, Carolyn S., MPH, PhD (2019). *Using Medical Claims to Find Disability Risk Factors in Newly Diagnosed Depression Disorder Patients*. Presented to the American Medical Informatics Association Informatics Summit 2019.