

MICHELLE HAND

Senior Healthcare Data Analyst | Clinical Strategy | Population Health Management

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SUMMARY

Clinical and healthcare data analyst with 13+ years of experience transforming complex claims, EMR, and pharmacy data into actionable population health and performance insights. Proven expertise in SQL, Python, and Power BI to support quality measurement, care coordination, and operational decision-making. Adept at collaborating with clinical, actuarial, and operational teams to develop dashboards and tools that align with HEDIS, CMS, and NCQA standards.

EXPERIENCE

Senior Data Analyst, Lead 04/2021 - Present
Marsh & McLennan Agency Remote

- Led an 8-person cross-functional team—including population health consultants, clinical consultants, and data analysts—to design internal and client-facing dashboards, ensuring data logic adhered to healthcare standards and industry coding systems (ICD-10, HCPCS, CPT).
- Developed complex SQL queries and Python pipelines to analyze medical, pharmacy, and EMR-derived engagement data across 1M+ members; findings informed care coordination and risk mitigation strategies for 65+ employer groups.
- Partnered with actuaries and product leads to build predictive models (logistic regression) identifying high-cost claimants, supporting proactive care initiatives.
- Identified care leakage under hospital client groups to move domestic utilization upwards of 50% and shift \$750k-\$1 million in-house per plan year.
- Conducted population health studies on diabetes, behavioral health, gene therapy, and musculoskeletal conditions using ICD-10- and NDC-coded claims; presented clinical and financial ROI impacts to clients.
- Delivered cohort analysis on GLP-1 medication adherence, uncovering a 41% medical cost reduction among adherent members; findings guided benefit coverage decisions.
- Modeled utilization scenarios (e.g., IVF access post-legislation) and translated results into actionable recommendations for mid-sized clients.

Senior Business Analyst 01/2016 - 03/2021
Centene Raleigh, NC

- Developed SQL-driven reporting pipelines to analyze Medicaid claims, provider risk, and CMS regulatory compliance across multiple state markets.
- Aligned data reporting and operational workflows to evolving CMS policy during new market launches (NE, NC), ensuring regulatory success.
- Conducted claims audits that identified systemic issues and drove \$250K-\$500K in annual savings for provider groups via grievance and appeals corrections.
- Mentored 5 junior analysts on researching Centers of Medicare & Medicaid Services policies for operational improvement.
- Reviewed 500+ provider inquiries annually through root-cause analysis on healthcare claims data-related system problems to recommend or execute corrective action.

Support Specialist 11/2013 - 03/2015
Pulse Technology Elk Grove Village, IL

- Developed and implemented 15 electronic workflows processed through a back-end SQL database that replaced paper workflows.
- Led software training webinars for 20 users at a time when a new e-workflow was implemented.
- Managed 10,000+ leads and accounts in CRM database and created customized reports from software to match the sales team's needs.
- Analyzed client business workflows against data and document management product to improve client operational efficiency.

EDUCATION

Associates of Applied Science, Business Analytics 01/2023 - Present
Wake Technical Community College Raleigh, NC



PROJECTS

GLP-1 Weight Loss Cohort Study

This project models the impact of adherence to weight-loss GLP-1 medications—Wegovy, Saxenda, and Zepbound—on healthcare costs. The goal is to evaluate how consistent usage of these drugs affects medical and pharmacy spending over a multi-year period.
github.com/michellehand/GLP-1_Study

California Senate Bill 729

Project in response to California SB 729, requiring IVF benefits for self-funded employers by 2025. Assessed financial impact and average cost of IVF using claims data, and member utilization rates in health plans. github.com/michellehand/IVF

KEY ACHIEVEMENTS

Appalachian Trail Thru-Hike

Backpacked 2,200 miles in 2015 from Georgia to Maine. Envisioned a dream into reality.

HERO Forum 2023 - Speaker

Presented findings on a cohort analysis for client that implemented wellness program initiatives. Participants in program revealed an 18% decrease in medical costs year-over-year.

NCHA Conference 2022 - Speaker

Presented pre- and post-pandemic mental health trends in book of business data to develop a story about family mental health. Uncovered 52% of adolescent inpatient admits were for mental health diagnoses.

Engineered ETE Data Pipeline

Developed and implemented data pipeline from actuarial team's SQL Server database -> Jupyter Notebooks -> Power BI. Streamlined book of business case studies to process massive 500+ million claim datasets.

EDUCATION

Bachelor's Degree, Journalism

University of Iowa

08/2009 - 05/2013

Iowa City, IA

CERTIFICATION

IT Specialist Python - Pearson
(2024)

Earners of this badge demonstrate that they can recognize, write, and debug Python code that will logically solve a problem.

SAS Programming Specialization - SAS (2023)

In these courses students used SAS programming language to import data, transform and process data, evaluate logs to troubleshoot errors, produce output and analyze output to gain business insights.

Business Intelligence - Wake Tech (2024)

Completed 4-course certificate at Wake Tech that proved skills in data analytics and visualization.

SKILLS

Languages & Tools

SQL, Python (pandas, statsmodels, seaborn), Jupyter, Power BI, Tableau, Excel, SAS

Healthcare Informatics

ICD-10, HCPCS, CPT, DRG, NDC

Statistical Methods

Propensity score matching, linear regression, logistic regression, forecasting, hypothesis testing