Daniel Casillas, MPH

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Portfolio · GitHub · LinkedIn · Google Scholar

PROFILE

Healthcare quality analyst and applied biostatistics professional with an MPH and strong proficiency in R and SAS, complemented by Python programming skills. Experienced in statistical modeling, propensity score matching, and reproducible analysis of clinical research data. Combines statistical expertise with SQL and Epic Clarity knowledge to support cohort development, data validation, and interpretation of orthopedic outcomes.

TECHNICAL SKILLS

- Statistical programming: R, SAS, Python, additional software: STATA
- Statistical methods: Regression modeling, propensity score matching, survival analysis, longitudinal data analysis
- Clinical data and querying: SQL, Epic Clarity, Caboodle, cohort development, data validation
- Research reporting: Effect estimates, confidence intervals, research tables, reproducible statistical reports
- Supporting tools: Excel, Tableau, ggplot2, REDCap, clinical research: IRB compliance, Good Clinical Practice

EPIC CREDENTIALS

- Epic Cogito Fundamentals, Certified
- Epic Clarity Data Model Fundamentals, Certified
- Epic Caboodle Data Model Fundamentals, Certified
- Epic Clinical Data Model, Certified

EDUCATION

University of Colorado Anschutz Medical Campus

Master of Public Health, Applied Biostatistics

- Transforming Health Systems and Policy Scholarship Recipient ($5,000/year, 2023–2025)
- Student Representative, Department of Biostatistics & Informatics

University of Colorado Denver

Bachelor of Science, Public Health

- Student Body President, CU Denver Student Government Association (2020–2021)
- Chair, Student Fee Review Committee (2019–2020)
- Colorado Summer Institute in Biostatistics Participant (2020)

EXPERIENCE

Denver Health Medical Center **Mar 2026 – Present**

Data Analyst I – Orthopedic Surgery

- Conduct statistical programming and analysis in R and SAS for orthopedic research, including data preparation, comparative analyses, regression modeling, and propensity score matching.
- Develop SQL queries in Epic Clarity to extract clinical cohorts and link patient, encounter, diagnosis, and procedure data for research and quality reporting.
- Validate analytic datasets by reviewing inclusion criteria, duplicate records, missing values, and outcome definitions, resolve discrepancies with clinical investigators.
- Produce research tables, effect estimates, confidence intervals, and reproducible reports to support manuscript development and interpretation of findings.
- Analyze surgical complications, readmissions, and patient-reported outcomes to support CMS TEAM and orthopedic quality improvement initiatives.
- Serve as primary statistician and co-author on three orthopedic manuscript submissions to Injury and The Journal of Foot and Ankle Surgery, supporting analyses of diagnostic performance and fracture nonunion outcomes.

University of Colorado Anschutz Medical Campus **Jul 2023 – Dec 2025**

Professional Research Assistant – Pediatric Endocrinology

- Supported multi-site diabetic kidney disease research through study coordination, biospecimen management, and preparation of study data for investigator and sponsor review.
- Presented study data to principal investigators and industry sponsors, communicating study findings and operational updates.
- Maintained biospecimen integrity and supported regulatory compliance across clinical research activities.

Pueblo City Schools District 60 **Aug 2022 – Jun 2023**

Science Teacher

- Designed project-based science curricula that developed students' ability to investigate questions, interpret evidence, and communicate conclusions.
- Taught scientific reasoning and collaborative problem-solving through structured classroom investigations.

Colorado Commission on Higher Education **Jun 2021 – Jun 2022**

Student Advisor

- Combined individualized advising with available student information to identify barriers to persistence and connect students with appropriate resources.
- Supported student retention through accessible advising, mentorship, and guidance tailored to individual needs.

SELECTED ANALYTICS PROJECTS

Orthopedic Outcomes Analysis | R and SAS

- Prepare and validate orthopedic research cohorts, apply comparative analyses, regression modeling, and propensity score matching, produce effect estimates, confidence intervals, and research tables.

Clinical Cohort Development | SQL and Epic Clarity

- Translate clinical eligibility criteria into SQL queries linking patient, encounter, diagnosis, and procedure data, review duplicate records, date windows, and cohort counts before reporting.

RESEARCH EXPERIENCE

University of Colorado Anschutz **Dec 2025**

Master of Public Health Capstone

Assessing the Role of Copeptin in Type 1 and Type 2 Diabetes: Links to HbA1c, BP, Insulin Sensitivity, Free Fatty Acids, eGFR, and mGFR

Preceptor: Dr. Petter Bjornstad, University of Washington School of Medicine

Colorado School of Public Health **2019–2020**

Undergraduate Research Project

Racial and Ethnic Differences in Metabolism and Neonatal Growth in Women with Gestational Diabetes

Funded by EUReCA Program & NIH/NIDDK R01 DK101659

TEACHING AND LEARNING ASSISTANT EXPERIENCE

Learning Assistant – University of Colorado Denver

- *General Biology II* with Dr. Laurel Hartley (Fall 2019, Spring 2020)
- *General Chemistry I* with Dr. Priscilla Burrow (Fall 2020)
- *Organic Chemistry II* with Dr. Michael Kimbrough (Spring 2021)
- *Organic Chemistry II* with Dr. Jungjae Lee (Spring 2022)

PUBLICATIONS AND MANUSCRIPTS

Published articles

- Bjornstad P, Choi YJ, Platnick C, et al., Bjornstad Lab. Insulin Secretion, Sensitivity, and Kidney Function in Young Individuals With Type 2 Diabetes. Diabetes Care. 2024,47(3):409–417. doi:10.2337/dc23-1818. Group collaborator: **Casillas D**.
- Beernink JM, Jongs N, Mosterd CM, Scholtes RA, Caldwell-McGee A, **Casillas D**, et al. Effects of dapagliflozin on sodium excretion, blood pressure and volume status in patients with type 2 diabetes and/or chronic kidney disease: The DAPASALT trial. Diabetes Obes Metab. 2025,27(8):4415–4426. doi:10.1111/dom.16478.

Submitted manuscripts

- Heerspink HJL, **Casillas D**, et al. Effects of zibotentan, dapagliflozin, and their combination on kidney and fluid parameters in individuals with chronic kidney disease: a randomized double-blind placebo-controlled crossover trial. Submitted to Kidney International. Manuscript ID: KI-06-26-1105. Submitted June 2, 2026.
- Diagnostic Performance of the LRINEC Score and Parsimonious Clinical Models for Lower-Extremity Necrotizing Soft-Tissue Infections. The Journal of Foot and Ankle Surgery. Submitted. Co-authors: Melia K, Frey CP, Saeidi S, Dietlein CB, Higinbotham SE, **Casillas D**, Gorski MA, Jerabek MR, Hoffman KM. Corresponding author: Osorio A.
- Factors for Predicting Nonunion in Operatively Managed Sacral Fractures. Injury. Submitted. Manuscript ID: JINJ-D-26-03024. Co-authors: Duldner JE, van Jaarsveld JL, **Casillas D**, Hellwinkel JE, Schaffer NE, Mauffrey C. Corresponding author: Schlauch AM.
- Does the time from definitive surgery to nonunion repair affect the rate of recalcitrant nonunion? A retrospective clinical cohort of aseptic femoral and tibial shaft nonunions. Injury. Submitted. Co-authors: Duldner JE, van Jaarsveld JL, **Casillas D**, Hellwinkel JE, Schaffer NE, Mauffrey C. Corresponding author: Schlauch AM.

ABSTRACTS AND PRESENTATIONS

- *Effects of Dapagliflozin on Sodium Excretion and Blood Pressure in Patients with T2D and CKD.* ASN Kidney Week, San Diego, CA, 2024. Abstract ID: SA-PO351.
- *Effects of Zibotentan and Dapagliflozin Combination Therapy on Albuminuria and Fluid Parameters in CKD (ZODIAC Trial).* ASN Kidney Week, San Diego, CA, 2025.
- *ZODIAC Study Findings on Albuminuria and Fluid Parameters in CKD.* Poster Presentation, University of Colorado Research Exchange Day, Aurora, CO, Oct 2025.
- **Casillas D**, Caldwell-McGee A, Persson F, Birznieks C, Rydin A, Dobbs T, Browne L, Nadeau K, Barker AJ, Bjornstad P. Obesity Drives Cardiac Hypertrophy while Diabetic Kidney Disease Links to Diastolic Dysfunction and Vascular Stiffness in Young Adults with Type 2 Diabetes. Poster presentation.

LEADERSHIP AND SERVICE

- Student Body President, CU Denver Student Government Association (2020–2021)
- Led initiative to integrate a mental health syllabus statement across all CU Denver courses, ensuring students had access to crisis lines and counseling resources. The policy remains in effect and supports ongoing student well-being.
- Chair, Student Fee Review Committee, University of Colorado Denver (2019–2020)
- Student Representative, Department of Biostatistics & Informatics, ColoradoSPH (2024–2025)
- Founder & Captain, Men's Volleyball Team, University of Colorado Denver (2019–Present) – Established the first competitive men's volleyball team on campus, continue to mentor and support the team.
- Coach, Rocky Mountain Quiz Kids, Pueblo Centennial High School (2022–2023) – Led and coached students in statewide academic competitions in Colorado Springs.
- Featured in *"My Voice, My CU – Meet Daniel"* video series, University of Colorado System (2022). Profile highlighted student leadership, resilience, and contributions to the CU Denver community.
- Participant, LA Leadership Council, Learning Assistant Alliance – CU Denver representative spotlighted among national members

AWARDS AND SCHOLARSHIPS

- Transforming Health Systems and Policy Scholarship ($5,000/year, 2023–2025)
- EUReCA Program Research Funding, ColoradoSPH (2019–2020)
- Pueblo Hispanic Education Foundation Scholarship (2018–2022, annual recipient)
- Joe Shoemaker Fellowship, The Greenway Foundation (2021–2022), Recognized for leadership and public health advocacy, with policy exposure at the Colorado State Capitol
- CIDA Student Assistant, CU Anschutz, First CU Denver undergraduate hired by the Center for Innovative Design & Analysis through a DEI initiative, featured in a ColoradoSPH article highlighting efforts to expand biostatistics opportunities for underrepresented students

PRACTICUM EXPERIENCE

Young Invincibles, Denver, CO **Aug 2025 – Dec 2025**

Policy & Advocacy Practicum

- Contributed to health policy and advocacy initiatives focused on young adults in Colorado.
- Supported campaigns including the Earned Income Tax Credit (EITC) and Healthy Minds Checklist.
- Collaborated with cross-sector teams to advance equitable health and education policy.

PROFESSIONAL DEVELOPMENT AND TRAINING

Colorado Summer Institute in Biostatistics (2020)

CITI Program Trainings

- Human Subjects Research (HIPS)
- Group 1 Biomedical Investigator
- ICH/GCP – Good Clinical Practice (current)
- Regulatory Compliance & IRB Training (current)
- Additional skills: Healthcare data warehousing, clinical reporting, population health analytics, dashboard development.

PROFESSIONAL MEMBERSHIPS

- American Society of Nephrology (ASN), 2024–Present
- American Public Health Association (APHA), 2023–Present