

Hayden Spence

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Experience

Senior Associate *Aptive HTG — Department of Veterans' Affairs* *Dec. 2021 – Mar. 2025*

- Implemented and maintained OMOP Common Data Model standards for observational research, ensuring data quality and regulatory compliance across multiple disease domains including oncology
- Developed standardized ETL processes for transforming VA Corporate Data Warehouse (CDW) clinical data into research-ready datasets compliant with healthcare interoperability standards
- Created and maintained clinical concept sets and phenotype definitions through cohort definition interfaces
- Managed clinical terminology mapping processes using standard ontologies (ICD-10, CPT, HCPCS, LOINC, RxNorm, SNOMED)
- Incorporated semi-structured behavioral health and social determinants of health data from EHRs into structured research databases
- Established and executed frameworks for assessing clinical validity of healthcare data throughout the analytics pipeline
- Developed and maintained data dictionaries, entity relationship diagrams (ERDs), and documentation for healthcare data models
- Leveraged SQL, Python and R for healthcare data transformation, cleaning, and structuring
- Applied Natural Language Processing techniques to extract meaningful data from unstructured clinical notes
- Led business development initiatives resulting in \$1.2M in new project funding through technical proposals and prototype demonstrations

Healthcare Policy Analyst *The Bowen Group — Department of Defense* *Sep. 2020 – Jun. 2021*

- Orchestrated development of comprehensive annual reports incorporating complex healthcare surveillance data, ensuring standardized reporting of mental health metrics across military branches
- Transformed raw mental health data into actionable policy recommendations and visual analytics for executive leadership, including the White House and Congressional stakeholders
- Monitored and analyzed legislative trends in military healthcare, mental health services, and veteran transition programs, producing data-driven briefs aligned with federal healthcare priorities
- Supported revision of DoD Instruction 6490.16, ensuring alignment with current clinical best practices, standardized health data collection methods, and evidence-based prevention strategies
- Maintained structured databases of stakeholder information to facilitate coordinated healthcare initiatives across government agencies
- Created data visualizations, infographics, and reports that effectively communicated complex healthcare metrics to diverse audiences
- Tracked implementation of standardized assessment tools and protocols across military healthcare settings
- Drafted responses to Congressional inquiries and prepared materials for testimonies related to military mental health initiatives

Program Coordinator *Riverview Center for Growth* *Sep. 2017 – Mar. 2020*

- Designed and implemented interoperable Electronic Health Record (EHR) system that standardized clinical documentation and reporting across crisis services
- Built integrated reporting solution that harmonized data between State Measures and Outcomes Tracking System (MOTS), County reporting requirements, and Coordinated Care Organization specifications
- Developed standardized data collection protocols for behavioral health assessments, improving data quality and compliance with healthcare reporting standards
- Maintained clinical data dictionary and documentation standards for crisis assessment tools including Columbia Suicide Severity Rating Scale (CSSR-S)
- Implemented structured data capture methods for qualitative aftercare information, transforming unstruc-

tured clinical feedback into actionable improvement metrics

- Created automated monthly, quarterly and annual clinical data reporting pipelines that reduced manual processing by 65% and improved data integrity
- Established and monitored clinical data quality metrics for crisis intervention services
- Collaborated with University of Oregon research labs to develop evidence-based data collection methodologies for crisis intervention outcomes
- Managed mental health crisis response program for children and adolescents, overseeing staff training, scheduling, and quality assurance
- Ensured compliance with Oregon Administrative Rules, HIPAA regulations, and RFP requirements across all program operations

Education

University of Oregon

Master of Science in Prevention Science

Sept. 2018 – Jun. 2020

University of Oregon

Bachelor of Science in Psychology

Sept. 2012 – Aug. 2016

Publications

The Impact of a Metformin Recall on Patient Hemoglobin A1c Levels

Federal Practitioner

Nov. 2024

Effects of a patient-centered digital health intervention in patients referred to cardiac rehabilitation: the Smart HEART clinical trial *BMC Cardiovascular Disorders*

Sep. 2023