

Summary

Extensive experience in healthcare information exchange including interoperability strategy, business and technical analysis, software development management, product management and project leadership.

Enjoy working closely with business and technical stakeholders—within and across organizations—to discover needs, clarify understanding, establish approach and deliver technology that makes a difference.

Key strengths

- Thought leader, innovator, consensus builder and project driver
- Success aligning stakeholder interests, clarifying aims and approaches, establishing action plans, overcoming obstacles and delivering results in multi-stakeholder, multi-organization initiatives
- Comfortable interacting with all roles and levels from staff to senior management
- Quick to ramp up and fulfill expert and leadership functions
- Experience implementing e-prescribing and other healthcare standards: NCPDP, HL7, FHIR, X12
- HL7 FHIR R4 proficiency certification
- Respected voice in health IT standards development. Current NCPDP task group leader and past Board of Trustees member. Member of NCPDP, HL7 and IHE. Past speaker at global SNOMED CT health terminology showcase, US Long Term / Post-Acute Care IT Summit, AHIMA education conference, NCPDP webinars and other industry events
- Use of project management methodologies and tools: Agile software development, Lean development, UML, use case-centered design, Project Management Institute PMP

Health Information Exchange Analyst / Consultant

2009 – Present

Various clients: Exchange networks, payers/PBMs, EHRs, pharmacies, alliances, other

Contract

*Example projects***HL7 FHIR Implementation Guide Technical Author**

April 2020 – Present

Standards Organization and Health Data Exchange Network

Contract

Work with multiple stakeholders to author a FHIR implementation guide to provide patient clinical data to those that fulfill specialty medication prescriptions. Author all FHIR profile resources, facilitate collaboration with HL7 and NCPDP workgroups and refine with partner organizations

- Focus areas: HL7 FHIR implementation guide, NCPDP SCRIPT
- Exchange standards: HL7 FHIR R4, NCPDP

HL7 FHIR Implementation Guide Technical Author

October 2019 – Present

FHIR Accelerator Organization

Contract

Author a FHIR implementation guide for a consumer-facing, pharmacy benefit check API. Responsible for authoring all FHIR profile resources, facilitating collaboration with HL7 workgroups and refining/testing with partner organizations. Shepherd the implementation guide through HL7 balloting and publishing

- Focus areas: HL7 FHIR implementation guide, Realtime Prescription Benefit Check (RTPBC)
- Exchange standards: HL7 FHIR R4, NCPDP

Electronic Prior Authorization Subject Matter Expert

April 2019 – Present

Startup company

Contract

Provide expertise to a technology company offering innovative prior authorization services to providers

- Focus areas: Electronic prior authorization (ePA) XML and REST APIs
- Exchange standards: NCPDP SCRIPT

Business / Product Analyst—New Offerings

October 2018 – September 2019

National e-prescribing and healthcare information network

Contract

Provide analysis and product management assistance to the definition and development of new offerings

- Business / systems analysis of specialty medication prescribing and fulfillment processes, supported by FHIR clinical data retrieval. Develop user stories and facilitate Agile planning
- In-depth ePA message data analysis (SQL, stored procedures) to discover product opportunities
- *Exchange standards:* HL7 FHIR, NCPDP SCRIPT

E-Prescribing Standards Expert

October 2010 – August 2018

National Institute of Standards and Technology (NIST)

Contract

Provide subject matter expertise, system / data analysis and standards group facilitation to support NIST's e-prescribing testing role for the federal Meaningful Use and EHR Certification programs and development of other validation tools and documentation for e-prescribing implementers

- Principal subject matter expert and analyst for federal EHR Certification (MU2 and MU3) e-prescribing validation tooling
- Generated systematic validation profiles and Schematron for EDI and XML versions of SCRIPT 10.6 and 2017071 using SQL and .NET code
- Led joint NIST / NCPDP working group to provide guidance and review for NIST efforts
- Assessed standards interoperability in medication reconciliation (SCRIPT, HL7 CDA)
- *Exchange standards:* NCPDP SCRIPT (versions 10.6 and 2017071), HL7 CDA

Electronic PA / Benefits Project Champion and Analyst

June 2015 – July 2018

Large pharmacy benefit manager

Contract

Led effort to define and deliver an automated process (API) for determination of member/drug-specific PA criteria to support electronic prior authorization

- Drove a cross-functional effort to model utilization management, plan benefit setup and clinical review data and processes
- Led definition of solution methodology and validated it through simulation analysis using a large volume of historical PA case data (coding SQL and stored procedures)
- Worked closely with utilization management, clinical review, architecture and development teams to perform system analysis, data design, prototyping and iterative development, evaluation and design refinement
- Provided direction to technical and QA teams during Agile development and testing
- *Exchange standards:* NCPDP SCRIPT ePA, proprietary API

NCPDP SCRIPT E-Prescribing Standards Expert

June - August 2016

National e-prescribing and healthcare information network

Contract

Performed foundational analysis supporting the network's transition from the currently implemented prescribing standard (SCRIPT 10.6) to the standard taking affect January 2020 (SCRIPT 2017071)

- Performed detailed old-to-new data element mapping for all implemented message types
- Identified translation challenges and potential translation rules where necessitated by message content changes or newly added content
- *Exchange standards:* NCPDP SCRIPT (versions 10.6 and SCRIPT 2016071)

Information Exchange Conformance Analyst

November 2015 – June 2016

National Council for Prescription Drug Programs (NCPDP)

Contract

Provided standards expertise and technical assistance to NCPDP, helping assess opportunities to establish conformance testing capabilities for the range of NCPDP standards

- Developed conformance test tooling gap analysis for NCPDP Telecom standard
- *Exchange standards:* NCPDP SCRIPT, NCPDP Telecom D.0

Health Information Exchange Expert

December 2014 – December 2015

Pharmaceutical Manufacturer

Contract

Researched and applied exchange standards to support tracking of manufacturer and lot information throughout the medication ordering and administration process and reporting of adverse drug events to registries

- Documented applicable standards for ambulatory, hospital and long-term care settings
- Identified gaps and needed enhancements to exchange standards. Assisted in creation of SCRIPT standard enhancement proposals, which were ultimately approved by NCPDP
- Authored implementation guidance to electronic health record and prescribing system vendors for tracking medication manufacturer and lot information during medication ordering, dispensing and administration processes
- *Exchange standards:* NCPDP SCRIPT, NCPDP Telecom D.0, HL7 v2.x, ICH E2B Individual Case Safety Report (ICSR: adverse drug event reporting)

E-Prescribing Product Owner

April 2014 – June 2015

Large healthcare data exchange network

Contract

Act as Agile product owner and product management participant. Provide e-prescribing and prescriber-PBM information exchange expertise. Work closely with Agile development team, senior mgmt., sales

- Informed client of industry standards and considerations for electronic prior authorization (ePA)
- Supported development of pharmacy eligibility and medication history data exchange
- *Exchange standards:* NCPDP SCRIPT, X12

E-Prescribing Analyst

May 2014 – June 2015

National long-term care pharmacy chain

Contract

Supported the client's effort to enhance and expand its e-prescribing and patient census interfaces

- Authored SCRIPT 10.6 implementation guide to support medication order and resident census interfaces between PharMerica and its facility EHR vendor partners
- Facilitated enhancements to the client's patient census interface through close collaboration with key facility vendor partners and internal business and technical staff
- Provided subject matter expertise related to e-prescribing standards and regulation
- *Exchange standards:* NCPDP SCRIPT, HL7

Health Information Exchange Analyst

June 2009 – June 2014

National e-prescribing and healthcare information network

Contract

Various projects: business/systems analysis, project leadership and healthcare standards expertise

- Facilitated internal and external stakeholder discussion to reach consensus on data exchange approaches and conventions
- Led definition of new pharmacy benefit-driven messaging to EHRs. Facilitated working sessions with PBM, EHR and network stakeholders. Defined XML schema and authored implementation guide and related materials. Assisted in stakeholder implementation and testing

- Led HL7 message integration with every US state immunization registry. Standards strategy, negotiation with registries and providers on information requirements, detailed HL7 integration analysis
- Performed FHIR resource mapping for medication adherence offering based in part on PBM data
- Developed formulary data test tooling based on the NCPDP Formulary & Benefit standard
- *Exchange standards:* NCPDP SCRIPT, ePA and Formulary & Benefit, HL7 2.3.1-2.5.1, HL7 CDA

E-Prescribing Analyst

August 2013 – January 2014

EHR system vendor

Contract

Provided SCRIPT e-prescribing standards expertise to support the development of interfaces with pharmacy partners of this long-term care facility EHR vendor

- Analyzed existing HL7 medication order interface and document requirements to transition to NCPDP SCRIPT 10.6 standard. Developed implementation guide content and data mappings
- Worked closely with development team and pharmacy partner to provide subject matter expertise and to facilitate interface definition
- Assisted with ongoing questions related to electronic prescribing standards and regulation
- *Exchange standards:* NCPDP SCRIPT, HL7

Electronic Prior Authorization Analyst

April – June 2013

State Department of Health

Contract

Provided training and advice on electronic prior authorization (ePA) approaches and details on the current NCPDP SCRIPT ePA standard. Facilitated a state and national stakeholder group to agreement on Minnesota guidance for ePA.

- Led collaborative development of a MN statute-required ePA companion guide
- Produced background and training materials and authored an ePA background document

E-Prescribing Analyst and Technical Writer

April 2013

Leading US drug knowledgebase vendor

Contract

Restructured and enhanced guidance for use of this vendor's knowledgebase product in NCPDP SCRIPT 10.6 e-prescribing messages

Health Information Exchange Analyst / Project Manager

May 2009 – April 2011

State-based Health Information Exchange

Contract

Provided health information exchange standards expertise and project management to this statewide health information organization (HIO)

- Requirements development, testing, implementation, and project management responsibilities
- *Exchange standards:* HL7 lab, immunization, CCD; NCPDP medication history, X12 eligibility

E-Prescribing Analyst

January 2009 – May 2009

Large pharmacy benefit manager

Contract

Performed in-depth analysis of upcoming e-prescribing standards changes for this leading pharmacy benefit manager (PBM)

- Performed detailed gap analysis between e-prescribing standards, identifying transition work and requirements to meet Medicare Part D e-prescribing standards for PBM operations
- *Exchange standards:* NCPDP SCRIPT (e-prescribing), NCPDP Formulary & Benefit, X12 Eligibility

E-Prescribing Analyst

November 2008 – March 2010

SRS Software, Ltd.

Contract

Provide e-prescribing technical background and performed research on e-prescribing incentive programs, standards, federal and state requirements to this electronic medical record system vendor

- Supported the addition of e-prescribing functionality to an existing EMR system by providing background on industry conventions, technical standards and regulations
 - Support ongoing information needs related to e-prescribing standards and environment
 - *Exchange standards:* NCPDP SCRIPT (e-prescribing), NCPDP Formulary & Benefit, X12 Eligibility
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Prior healthcare information exchange experience**E-Prescribing Product Strategist**

July 2006 – April 2009

MDI Achieve, Eden Prairie, MN (Industry: Electronic Health Record vendor for long-term care settings)

Led e-prescribing product development and standards strategy for this long-term care software provider

- *Exchange standards:* NCPDP SCRIPT, NCPDP Formulary & Benefit, X12, HL7

Product Development Manager

November 2001 – July 2006

RxHub, LLC, St. Paul, MN (later Surescripts) (Industry: Healthcare information exchange network)

Exchange standards: NCPDP SCRIPT (e-prescribing), NCPDP Formulary & Benefit, X12 Eligibility

Healthcare industry involvement**NCPDP (National Council for Prescription Drug Programs)**

Past member of NCPDP Board of Trustees. Co-leader of Patient Consent task group. Webinar presenter

HL7 (Health Level Seven). Member. Participant in Pharmacy and Financial Management workgroups

IHE (Integrating the Healthcare Enterprise). Member

SNOMED International. Presenter at 2014 SNOMED CT Implementation Showcase, Amsterdam

AHIMA (American Health Information Management Association)

Speaker: National LTC practice meeting (April 2010): E-Prescribing & E-MARs in LTC

NASL (National Association for the Support of Long-Term Care)

Past Chair: Medication Management Workgroup. Speaker: 2012 *Introduction to NCPDP and E-Prescribing Standards* webinar; 2008 LTC HIT Summit: *Incorporating Physician Input to Improve LTC E-Prescribing*

ASCP (American Society of Consultant Pharmacists)

Speaker (2007): *An Industry Perspective of Electronic Prescribing in Long-Term Care*

HHS / Assistant Secretary for Planning and Evaluation Expert Panel

Participant: 2009 Expert panel refining design and content for the National Nursing Home Survey

Education and Certifications

Bachelor of Business Administration – Finance. University of Wisconsin, Eau Claire, Eau Claire, WI

Project Management Institute (PMI) - PMP certification

HL7 - FHIR R4 Proficiency Certification