5628 Guthrie Place, Davis, CA 95618 - (510) 368-4319 (M) eliederman@gmail.com, linkedin.com/in/ericliederman

Privacy & Security	Medical Informatics	IT Resilience	IT Investment
Program Oversight	Change Management	Regulatory Response	Data Analysis

CYBERSOLUTIONSMD, LLC

2024-Present

Independent consultant in digital health, cybersecurity and privacy protection, and IT resilience

KAISER PERMANENTE

2005-2024

One of the largest integrated healthcare organizations in the United States: >240,000 staff, including >23,000 MDs serving 12.5M Kaiser members with \$93B annual revenue

National Leader, Privacy, Security and IT Infrastructure, The Permanente Federation Director of Medical Informatics, Accountable Exec for Privacy & Security

2017-2024 2005-2024

Report to TPMG Associate Executive Director and Permanente Federation CIO

Accomplishments:

- Support allocation of \$2B annual national and regional IT investment budget
- Developed collaborative security governance which has prevented substantive cyber attacks
- Led successful "Information Blocking" program in compliance with 21st Century Cures Act
- Oversaw successful implementation of new claims system integrated with EHR
- Designed and implemented forensic audit privacy monitoring program which has reduced violations >99%
- Oversaw successful national health plan claims system implementation
- Led Meaningful Use to success for >95% of physicians & 100% of hospitals in Stages 1, 2 & 3
- Oversaw successful \$5B program to improve network, install VOIP, and implement disaster recovery
- Developed and implemented duplicate EHR infrastructure at a 2nd data center, reducing outage time 84%
- Increased EHR availability to 99.996% through process improvement & elimination of single points of failure
- Enhanced wireless mobile computing reliability by 400%, to support bedside paperless care 24/7
- Oversaw successful implementation of a new laboratory information system
- Cut \$250M from successful multi-year EHR deployment, with resulting HIMSS Analytics Level 7 designation

UNIVERSITY OF CALIFORNIA DAVIS HEALTH SYSTEM

2000-2005

500-bed academic medical center & Level 1 Trauma Center with an \$800 million annual operating budget.

Medical Director, Clinical Information Systems

2000-2005

Reported to Executive Director of Clinical Information Systems

Accomplishments:

- Led 100% of community MDs to use ambulatory CPOE and clinical documentation
- Reduced paper generation by 95% in community clinics
- Led the development of standard, evidence-based order sets & decision support
- · Innovated an accountability-based privacy process which protected information without impairing care
- Implemented a web-distributed PACS system, saving \$2.1 million & 22 physician-years annually
- Instituted patient e-messaging, creating new revenue, raising MD productivity 11% & reducing calls 18%
- Installed hospital WiFi and wireless mobile workstations, VOIP & patient web access
- Selected and implemented an Electronic Medical Record in all venues of care
- Designed and built a clinician results portal to improve clinical decision-making and security
- Deployed a digital dictation-transcription and e-signature system, for use by all clinicians
- Raised verbal order signing within 48 hours from 8% to 95% with e-signature, policy & process change

CATHOLIC HEALTHCARE WEST NorCal & MEDCLINIC MEDICAL GROUP

1997-2000

5 of the 41 CHW hospitals plus MedClinic, a 130-physician multi-specialty medical group.

Medical Director, Clinical Information Systems, CHW Northern CA Medical Director, Information Systems, MedClinic Medical Group

1997-2000

Reported to CHW CIO and to the MedClinic Medical Director and Board of Directors.

Accomplishments:

- Contributed to financial turnaround (from a \$1.1M monthly loss to near profitability) by:
- o Analyzing clinical and administrative data mining to improve provider utilization and quality
- Developing disease management programs for diabetes, asthma, anticoagulation, CHF & CAD
- Implemented vendor ambulatory clinical data repository and clinical messaging systems
- Designed a data warehouse & disease management program for diabetes, asthma, anticoagulation, CHF & CAD

Lead Physician Advisor, Utilization Management, CHW Northern California Reported to CHW CMO

1998-2000

Accomplishments:

- Decreased bed days per 1000 by 18%, and average LOS by 21%
- Reduced CHF & Coumadin hospitalizations by 60-80% with disease management programs
- · Lowered cardiac LOS through reorganization of catheterization lab staffing and hours
- Streamlined ER patient flow and reduced "social" admissions through resident ER case managers

Chief, Internal Medicine Department, MedClinic Medical Group Reported to MedClinic Medical Director.

1998-1999

Accomplishments:

- Recruited internists and mid-level providers to expand department by 50% in six months
- Reduced staff FTEs 18% through cross training and job-sharing without productivity loss

ACADEMIC POSITIONS

Lecturer, UC Davis Graduate School of Management
 Clinical Assoc. Professor of Internal Medicine, UC Davis Health System, Sacramento, CA
 Instructor, UC Davis Medical Informatics Masters Program, Sacramento, CA
 2000-2010
 2000-2004

CLINICAL POSITIONS

•	General Internist, The Permanente Medical Group, Sacramento, CA	2005-Present
•	General Internist, Mediclinic (now Mercy) Medical Group, Sacramento, CA	1996-2000
•	US Navy Flight Surgeon, Marine Corps Air Station New River, Jacksonville, NC	1990-1993

FELLOWSHIPS & MEMBERSHIPS

- Fellow, Health Information and Management Systems Society (HIMSS)
- Member, HIMSS Cybersecurity, Privacy, and Security Committee
- Fellow, American College of Physicians
- Member, EHealth Exchange Coordinating Committee
- Member, Association of Medical Directors of Information Systems (AMDIS)
- Member, American Medical Informatics Association (AMIA)
- Member, Sequoia Project Information Blocking Workgroup

EDUCATION

- M.P.H. in Health Policy and Management, University of Massachusetts, Amherst, MA
- Internal Medicine Resident, Baystate Medical Center, Springfield, MA
- Otolaryngology Resident, Eye and Ear Institute, University of Pittsburgh, PA
- M.D., Tufts University School of Medicine, Boston, MA
- B.A. Classical Archaeology, Dartmouth College, Hanover, NH (Magna Cum Laude)

CERTIFICATIONS

- Diplomate in Clinical Informatics, American Board of Preventive Medicine
- **Diplomate**, American Board of Internal Medicine
- Diplomate/Certified Physician Executive, American Association. for Physician Leadership

MEDICAL LICENSURE

• California – active (G70728)

PUBLICATIONS

Liederman EM. The CMIO and Privacy and Security. Chapter in: Rydell RL and Landa HM, editors. The CMIO Survival Guide, Boca Raton: CRC Press; 2018. p. 123-130

Liederman, EM. Capitation and Cognitive Dissonance: The Economics of Models of Care. Clinical Informatics News. http://www.clinicalinformaticsnews.com/cln/2015/3/20/capitation-cognititve-dissonance-economics-models-of-care.html. March 20, 2015.

Liederman EM. Protecting Privacy Without Harming Patients. Clinical Innovation+Technology. February 25, 2014

Liederman EM. *Organizational Readiness for the CMIO*. Chapter in: Bria WF, Rydell RL, editors. The CMIO Survival Guide, Chicago: HIMSS; 2011. p. 27-33

Bold RJ and Liederman EM. Web Relationships Between Physicians and Individuals Seeking Information on Hepatopancreatobiliary Diseases – Invited Critique. Arch Surg; 141(12):1182. Dec 1, 2006

Liederman EM. Protecting Privacy Without Harming Patients. Most Wired Online. June 6, 2006

Srinivasan M, Liederman EM, Baluyot N & Jacoby R. Saving time, improving satisfaction: the impact of a digital radiology system on physician workflow and system efficiency. J Healthcare Info Mgmt 2006; 20(2):123-131

Kimmel Z, Greenes R & Liederman EM. Personal health records. J Med Prac Mgmt. 2005;Nov/Dec:147-152

Liederman EM, Sands DZ & Handley M. *Patient portals*. Chapter in: Miller J, editor. Implementing the Electronic Health Record: Case Studies and Strategies for Success. Chicago: HIMSS; 2005. p.85-94

Liederman EM, Lee JC, Baquero VH & Seites PG. *The impact of patient-physician web messaging on provider productivity*. J Healthcare Info Mgmt 2005;19(2):81-86

Liederman EM, Lee JC, Baquero VH & Seites PG. Secure web messaging: the impact on providers & patients. J Gen Intern Med 2005;20(1):52-57

Liederman EM, Zimmerman EM, Athanasoulis MA, Young MAC. System-wide rollout of doctor-patient secure web messaging: the UC Davis "virtual care" experience. Chapter in: Whitten P, Cook D, editors. Understanding Health Communication Technologies. San Francisco: Jossey-Bass; 2004. p.244-250

Curry MP, Trask L, Liederman EM, Zeboski A & Hutchinson D. *Verbal order compliance – how we achieved it.* J AHIMA 2004;75(7):38-41

Liederman EM, Zimmerman E. Secure web messaging: independent study shows it's a win for physicians, patients and payers. In: Proceedings of AHIMA National Convention; 2003 Oct 18-23; Minneapolis, MN

Liederman EM and Morefield CS. *Web messaging: a new tool for patient-physician communication*. J Am Med Inform Assoc 2003:10:263-274

Liederman EM. Clinical practice guidelines face legal tests. Click Medical Management Journal, July 2000.

Liederman EM. Reflections on the role of pharmaceutical companies' disease management programs. Disease Management 1(3):163-170, May 1998

Liederman EM, Post JC, Aul JJ et al. *Analysis of adult otitis media: PCR vs culture of bacteria, viruses and HIV.* Annals of Otology, Rhinology & Laryngology 107(1):10-16, January 1998

Buchman, C, Liederman E, Aul J, Post JC, Ehrlich GD: *Molecular microbiologic analysis of otitis media in adults*. Sixth International Symposium on Recent Advances in Otitis Media, Fort Lauderdale, Florida, June 4-8, 1995

SPEAKING ENGAGEMENTS

Collaborative Cybersecurity Decision-Making and Governance | Panel: Workforce Vigilance: Fostering a Security Mindset. HIMSS Healthcare Cybersecurity Forum. Boston, MA October 2024

Cybersecurity: How to Work Together to Defend the Organization. National Association of Long-Term Hospitals Leadership Conference. National Harbor, MD October 2024

The Risks and Challenges of AI. Stanford Center for Biomedical Informatics Research. Palo Alto, CA October 2024

How to protect privacy without harming patients. Epic Users Group Meeting, Verona, WI August 2024

Cybersecurity for the CMIO. AMDIS Annual Meeting. Ojai, CA June 2024

Organizational Governance of Al. AMDIS Annual Meeting. Ojai, CA June 2024

Reducing Aggregated Risk in Healthcare: How to Defend the Organization without Impairing Care Delivery. HIMSS Webinar April 2024

Al and Cybersecurity: Navigating Innovation and Managing Risks. HIMSS Global Conference. Orlando, FL March 2024

Artificial Intelligence: Risks and Challenges. HIMSS Global Conference. Orlando, FL March 2024

Responsible AI. aiMPACT conference. UC Davis, Davis, CA February 2024

Al Risks and Challenges. Healthcare Compliance Association. Lafayette, CA December 2023

Panels: Generative AI in Healthcare And Impact of EHRs. AAPL Annual Meeting. Scottsdale, AZ October 2023

Panel: Artificial Intelligence: Cybersecurity's Friend or Foe? And Personal Safety: How Cybersecurity and Privacy Protection Generate Trust in the Healthcare System. HIMSS Cybersecurity Forum. Boston, MA September 2023

How to protect privacy without harming patients. Epic Users Group Meeting, Verona, WI August 2023

Generative AI: Panacea or End of Civilization. AMDIS Annual Meeting, Ojai, CA June 2023

Establishing Effective Cybersecurity Governance in Healthcare. HIMSS Global Conference, Chicago, IL April 2023

Clinical Perspectives in Cybersecurity Panel. HIMSS Cybersecurity Forum, Boston, MA December 2022

Cybersecurity Risk Management. Boğaziçi Universitesi, Istanbul, Turkey October 2022

How to protect privacy without harming patients. Epic Users Group Meeting, Verona, WI August 2022

Information Sharing Challenges. ONC EHI Sharing Workshop. Virtual, August 2022

Panel: Information Sharing. AMDIS annual conference, Ojai, CA June 2022

Panel: Experts Discuss the Net Effects of the Information Blocking Rule. AHIMA webinar July 2021

How to protect privacy without harming patients. Epic Users Group Meeting, Verona, WI August 2019

Collaborative Decision Making: Delivering MFA That Works for Patient Care. Epic Information Security Advisory Council. Verona, WI May 2019

Patient care and privacy laws: The current state of (im)balance. Global Clinical + Care Coordination Forum, Hamburg, Germany November 2018

How to protect privacy without harming patients. Epic Users Group Meeting, Verona, WI September 2018

Collaborating on Cybersecurity (Panel Moderator). AMDIS annual conference, Ojai, CA June 2018

Collaborative cybersecurity protection. Epic Information Security Advisory Council. Verona, WI April 2018

Protecting our patients: What physicians need to know about cybersecurity. AMA meeting, Honolulu November 2017

How to protect privacy without harming patients. Epic Users Group Meeting, Verona, WI September 2017

Preventing cybercrime without impairing care delivery. National Health ISAC, Orlando, FL May 2017

Preventing cybercrime without impairing care delivery. Epic Experts Group Meeting, Verona, WI April 2017

How to protect privacy without harming patients. Epic Users Group Meeting, Verona, WI September 2016

Panel Moderator: Cybersecurity. AMDIS annual conference, Ojai, CA June 2016

How to protect privacy without harming patients. Epic Users Group Meeting, Verona, WI August 2015

Protecting Privacy without Harming Patients AND Panel on Authorized Sharing of PHI and Ensuring Privacy and Security. Medical Informatics World Conference. Boston, MA April 2015

How to protect privacy without harming patients. Epic Users Group Meeting, Verona, WI September 2014

How to protect privacy without harming patients. Epic Users Group Meeting, Verona, WI September 2013

How to protect privacy without harming patients. Epic Users Group Meeting, Verona, WI September 2012

Who owns the data? Panel at the Northern California HIMSS Clinical Informatics Forum, San Francisco, CA. May 2012

Panel: Securing electronic personal health information (ePHI): From the data warehouse to the point of care. Institute for Health Technology Transformation Conference, San Francisco, CA. March 2012

Protecting privacy without harming patients. HIMSS Global Conference, Las Vegas, NV. February 2012

Balancing privacy protection with patient care. Keynote at Global E-Health Forum, Hamburg, Germany. October 2011

How to protect privacy without harming patients. Epic Users Group Meeting, Verona, WI September 2011

How to meaningfully protect privacy without harming patients. HIMSS Gobal Conference, Orlando, FL. February 2011

Protecting privacy without harming patients. Epic Users Group Meeting, Verona, WI September 2010

Transactional patient portals - what, why and how | How to "meaningfully" protect privacy without harming patients. HIMSS Annual Conference, Atlanta, GA. March 2010

Protecting privacy without harming patients. Epic Users Group Meeting, Verona, WI September 2009

Trust ... but monitor. Safeguarding patient privacy and system integrity. Epic Security Forum, Verona, WI April 2009

Balancing privacy protection with patient care | Business-IT Integration: Secret Sauce for Success | Security Governance for a Diverse Enterprise. Epic Users Group Meeting, Verona, WI September 2008

Freeing the data: data extraction challenges and opportunities to support complex clinical care goals. Epic Physician/Nurse/Pharmacist Advisory Council, Madison WI April 2008

Balancing privacy protection with patient care | Cutting the cord: going wireless at Kaiser hospitals. Epic Users Group Meeting, Verona, WI September 2007

Best of breed vs. single vendor | Structured documentation vs. free text. AMDIS Annual Meeting, Ojai, CA July 2007

Managing clinical content across the enterprise. Epic "Venti" Large Customer Conference. St. Louis, MO May 2007

Balancing privacy protection with patient care. Epic Physician Advisory Council, Madison, WI March 2007

Clinical decision support roundtable. HIMSS Global Conference, New Orleans, LA February 2007

Measuring effectiveness. Epic "Venti" Large Customer Conference, Napa, CA November 2006

Protecting privacy in RHIOs. CalRHIO Privacy Summit, San Francisco, CA October 2006

Safeguarding patient privacy without compromising care. HIMSS Webinar, October 2006

Safeguarding patient privacy without compromising care. Epic Users Group Meeting, Madison, WI September 2006

Developing a Content Management System | Designing Functionality for Clinic-Administered Medication. Epic Physician Advisory Council, Madison, WI March 2006

Protecting patient privacy with personal accountability | Doctor-patient e-messaging: vendor-provider collaboration. HIMSS Global Conference, San Diego, CA February 2006

An innovative collaboration in online doctor-patient communication: lessons learned, results achieved and future directions. AMIA Annual Symposium, Washington, DC October 2005

The patient's role in the EHR evolution. McKesson EHR Readiness Symposia, San Francisco, New York City & Chicago, October 2005.

Safeguarding patient privacy without compromising care | The case of the missing film: UC Davis goes digital Epic Users Group Meeting, Madison, WI September 2005

Protecting patient privacy with personal accountability. AMDIS Annual Conference, San Diego, CA July 2005

Protecting patient privacy with personal accountability | Connecting patients and providers electronically. TEPR Annual Conference, Salt Lake City, UT May 2005

Physician-patient online communications. Healthcare Intelligence Network Web Conference April 2005

E-visits: data, disease and practice management. HIMSS Global Conference, Dallas, TX February 2005

Online physician-patient communication. CMA Leadership Academy, La Quinta, CA November 2004

Creative ideas in managing privacy and security in the EMR. Epic Users Group Meeting, Madison, WI September 2004

Doctor-patient electronic communication in the U.S. & Europe. Intl Med Informatics Assoc, San Francisco, Sept 2004

Personal health records. AMDIS Annual Conference, San Diego, CA July 2004

Changing clinician workflow using digital imaging technology. TEPR Annual Meeting, Fort Lauderdale, FL May 2004

Electronic messaging. Blue Cross Blue Shield National Council of Physician Executives, Chicago, IL May 2004

Focus on patient safety. Epic Physician Advisory Council, Madison, WI April 2004

The personal health record. HIMSS Annual Conference, Orlando, FL February 2004

Doctor-patient electronic communication in the US and Europe. TEHRE Annual Meeting, London, UK December 2003

Doctor-patient webVisits: who pays...who wins? Consumer Directed Healthcare Conference, Nashville, TN Nov. 2003

What happens when doctors & patients communicate securely online? The UC Davis experience. AHIMA National Convention, Minneapolis, MN October 2003

Protecting patient privacy | Patient web messaging. Epic Users Group Meeting, Madison, WI September 2003

Virtual care at UC Davis. AMDIS Annual Conference, San Diego, CA July 2003

What happens when patients communicate with doctors online? TEPR Annual Meeting, San Antonio, TX May 2003

Patient-provider electronic messaging: 2 health systems' experience. HIMSS Global Conference, San Diego Feb 2003

Virtual care at UC Davis Health System. AMDIS Annual Conference, Ojai, CA July 2002

Analysis of adult otitis media: PCR vs. culture of bacteria, viruses and HIV. Sixth International Symposium on Recent Advances in Otitis Media, Fort Lauderdale, FL September 1996