CURRICULUM VITAE FOR
CWRU SCHOOL OF MEDICINE

DATE: MARCH 19, 2024

PERSONAL INFORMATION

Name: **Bar-Shain, David Solomon**

Education

School: **Yale University**
Degree: B.A., Cum Laude
Dates: September 1985 – May 15, 1989

School: **Case Western Reserve University School of Medicine**
Degree: M.D.
Dates: August 1990 – May 14, 1995

School: **Case Western Reserve University School of Medicine, Institute of Pathology**
Degree: Student Fellowship in Pathology (non-degree program)
Dates: July 1992 – June 1993

Post-Graduate Training

Institution: **Rainbow Babies and Children's Hospital, Cleveland, OH**
Position: Intern in Pediatrics
Dates: June 1995 – June 1996

Institution: **Rainbow Babies and Children's Hospital, Cleveland, OH**
Position: Resident in Pediatrics
Dates: July 1996 – June 1998

Contact Information

Office Address: **The MetroHealth System, Department of Pediatrics**
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PROFESSIONAL APPOINTMENTS (recent to oldest)

Position/Rank: **Attending Physician**
Institution/Department: The MetroHealth System, Department of Pediatrics
Dates: July 1998 – present

Position/Rank: **Assistant Program Director**
Institution/Department: Case Western Reserve University, Center for Clinical Informatics Research and Education (MetroHealth), Clinical Informatics Fellowship Program
Dates: July 2016 – present
Roles:
1. Coordinate, facilitate and oversee the scholarly activities of the Clinical Informatics Fellows.
2. Teach (formal and informal) the discipline of Clinical Informatics within the context of the fellowship curriculum.

Position/Rank: **Director of Informatics for Clinical Decision Support**
Institution/Department: The MetroHealth System, Center for Health Informatics and Patient Engagement
Dates: May 2014 – present
Roles: Responsible for directing the building, maintenance, and evaluation of clinical decision support tools used throughout the MetroHealth System.

Position/Rank:	**Physician Operational Lead for Pediatric Immunization Quality**
Institution/Department:	The MetroHealth System
Dates:	October 2021 – present
Roles:	Responsible for building and instantiating innovative tools and programs with the aim of improving immunization rates of children in the MetroHealth System.

Position/Rank:	**Senior Scholar**
Institution/Department:	Center for Health Care Research and Policy (CWRU-MetroHealth) Program in Clinical Informatics
Dates:	July 2017 – present

Position/Rank:	**Chief Medical Informatics Officer**
Institution/Department:	Better Health Partnership
Dates:	April 2018 – November 2021
	Better Health Partnership is a multi-stakeholder Regional Health Care Improvement Collaborative that includes health care providers and systems, insurance plans, employer groups, and community organizations. Its mission is to transform health care to achieve better care, better health, and lower costs in Northeast Ohio. In 2021, I voluntarily resigned my position to free up time for an expanded operational role in the MetroHealth System.

Position/Rank:	**Associate Medical Director, Child Protection Team**
Institution/Department:	The MetroHealth System, Division of Pediatrics
Dates:	1999 – 2010

Position/Rank:	**Attending Physician**
Institution/Department:	Rainbow Babies and Children's Hospital, Cleveland, OH
Dates:	~1999 – May 2003

Position/Rank:	**Attending Physician**
Institution/Department:	Lakewood Hospital, Lakewood, OH
Dates:	July 1998 – May 2000

ACADEMIC APPOINTMENTS (recent to oldest)

Position/Rank:	**Professor** (non-tenure)
Institution/Department:	Case Western Reserve University School of Medicine, Department of Pediatrics
Dates:	January 1, 2023 – present

Position/Rank:	**Associate Professor** (non-tenure)
Institution/Department:	Case Western Reserve University School of Medicine, Department of Pediatrics
Dates:	July 1, 2017 – December 31, 2022

Position/Rank:	**Assistant Professor** (non-tenure)
Institution/Department:	Case Western Reserve University School of Medicine, Department of Pediatrics
Dates:	July 1, 1999 – June 30, 2017

Position/Rank:	**Instructor** (non-tenure)
Institution/Department:	Case Western Reserve University School of Medicine, Department of Pediatrics
Dates:	January 1, 1999 – June 30, 1999

CERTIFICATIONS AND LICENSURE

Name of Board:	**American Board of Pediatrics**
Certification:	**Board Certified in General Pediatrics**
Date Issued:	October 28, 1998
MOC Cycle:	November 17, 2017 through December 31, 2022

Name of Board:	**State of Ohio Medical Board**
License:	**Doctor of Medicine**
State/Number:	OH/35-07-1789
Date Issued:	December 16, 1996 – present

Name of Board:	**Epic Systems Corp. (Verona, WI)**
Date Initially Certified:	EpicCare Ambulatory Certification (July 29, 2010)
	Chronicles Install Utilities Certification (December 16, 2013)
	HyperSpace Configuration Certification (December 20, 2013)
	Chronicles Non-Programmer Certification (January 2, 2014)
	Chronicles Database Programmer Certification (February 1, 2016)
Name of Board:	**American Board of Preventative Medicine**
Certification:	**Board Certified in Clinical Informatics**
Date Issued:	January 1, 2017– January 31, 2027
Name of Board:	**MetroHealth TeamSTEPPS**
Certification:	**TeamSTEPPS Master Trainer**
Date Issued:	April 12, 2019

HONORS AND AWARDS

Personal – National:

- **PACademy Award.** Physician's Advisory Council of the Epic Systems Corp. (May 1, 2017)
  "In recognition of outstanding contributions to the Epic community." This honor is presented every year to a physician who has made a major impact on the Epic physician community. Approximately 600 physicians from around the world select the recipient of this award.
- **Fellow of the American Informatics Association.** Applied Informatics Recognition Program (2021)
- **The Byron Oberst Award.** American Academy of Pediatrics (2021)
  Given annually to a fellow of the American Academy of Pediatrics who has made "significant contributions to the field in one or more of the following areas: Improving pediatric clinical information systems, educating child health professionals in the use of clinical information technology, and creating health policies that promote better use of pediatric clinical information systems."

Personal – Local/Regional:

- **Cum Laude.** Yale University (May 15, 1989). Undergraduate honors.
- **Award of Distinction.** Department of Family Medicine, Case Western Reserve University (May 14, 1995). Presented by the faculty to a graduating medical student who excels in the Family Medicine Concentration.
- **NICU Award.** Department of Neonatology, Rainbow Babies and Children's Hospital (June 1996). Given to an intern who excels in the care of critically ill, premature infants.
- **Excellence in Teaching Award.** Department of Pediatrics, The MetroHealth System (June 2000, 2002, 2003, 2005, and 2007). Selected by the residents. "In recognition of outstanding effort and achievement in resident education."
- **The Mark Richards Humanism in Medicine Award.** Department of Pediatrics, The MetroHealth System (June 2007). Presented by the residents of the Pediatrics, and Internal Medicine-Pediatrics Residency Program to a "faculty member who embodies the finest qualities of a healer and a teacher. This individual is a caring, compassionate, and inspiring mentor for residents as well as a practitioner of patient-centered care, who teaches ethics, empathy, and service by example."
- **Community Advocacy Program - Provider of the Year Award.** The MetroHealth System (June 2011)
  "In recognition of outstanding collaboration with the Legal Aid Society of Cleveland and selfless advocacy on behalf of patients of the MetroHealth System."
- **Best Poster Award.** Council on Clinical Information Technology (COCIT), American Academy of Pediatrics (2012)
- **Top Patient Communicator Award.** Office of Patient Experience, The MetroHealth System (April 28, 2015)
  Given to providers who are rated in the top 5% of all providers by patients on post-visit surveys.
- **Excellence in Interprofessional Teaching Award.** Department of Psychiatry, The MetroHealth System. (June 2, 2018). Annual award presented by the residents and fellows of the American Psychological Association accredited Doctoral Residency Program in Pediatric and Clinical Psychology at The MetroHealth System. In recognition of the faculty member who demonstrates excellent teaching and commitment to integrated interprofessional care.
- **The Chairman's Award for Excellence.** Department of Pediatrics, The MetroHealth System (June 15, 2019). Annual award by the Department Chair in recognition of extensive contributions in pediatric informatics that directly benefit patients and providers throughout the health system.
- **3rd Place Poster Award.** The MetroHealth System: 2nd Annual Patient Safety Awareness Week Poster Competition. (March 10, 2020).

Personal – Other:
- **Best Doctors in Cleveland: General Pediatrics.** Cleveland Magazine (2013, 2014, 2018 and 2019)
- **Best Doctors in America.** Best Doctor's, Inc. (2017 and 2019). Peer-Selected as one of the 4% of physicians that colleagues would trust to care for themselves or their loved ones.
- **America's Best Doctors.** (2020)
- **Top Pediatrician.** Ohio Magazine (2021)
- **Top Doctor in Pediatric Medicine.** Marquis Who's Who in America (2021)
- **Top Doctors.** (2022)
- **Reviewer Award: AMIA Informatics Summit (2024).** Given by the American Informatics Association to reviewers who provide insightful and constructive feedback and make significant contributions which help maintain high standards and rigor in the peer-review process.

System – National:
- **HIMSS Stage 7 EMRAM (Electronic Medical Record Adoption Model) Hospital and Ambulatory Award (initial 2014, recertified 2023).** Healthcare Information and Management Systems Society (HIMSS). Stage 7 systems, "[D]emonstrate superior implementation and utilization of health IT systems. Their achievement has resulted in the true sharing, information exchange and immediate delivery of patient data to improve process performance, quality of care and safety." NOTE: in 2023, I authored and presented a Case Study, "Self-Scheduled Vaccinations via MyChart: Empowering Patients and Improving Access."
- **Davies Enterprise Award (2015).** Healthcare Information and Management Systems Society (HIMSS)**.** Awarded to health systems for "outstanding achievement in the implementation and value from health information technology, specifically EHR's." NOTE: The MetroHealth System's application highlighted my work on vaccine adverse event reporting, automated patient clinical messaging regarding adult and pediatric immunizations, and blood pressure diagnosis research and improvement.
- **Epic Safety-Net Award (2018).** Epic Systems Corp. Awarded to safety-net health systems that have made significant contributions to the larger Epic community. The award cites several areas that I have contributed to including leadership of councils, conference presentations, developer immersion trips, and participation in the physician listserv.
- **Gold Status in the Target BP Recognition Program (2019).** American Heart Association and American Medical Association. The MetroHealth System is one of just 542 physician practices and health systems to be recognized for achieving blood pressure control rates of 70 percent or more in their adult patient population with high blood pressure.

System – Regional:
- **Immunization Coverage Improvement Award (2014)**. Ohio Department of Health. Awarded to MetroHealth Main Campus Pediatrics, "For achieving significant improvement in immunization coverage rates as indicated by results of the 2014 Assessment, Feedback, Incentives and Exchange (AFIX) continuous quality improvement process." NOTE: My work on immunization workflows, decision support, clinical advisories, and order sets was integral to the health system's winning of this award.

MEMBERSHIP IN PROFESSIONAL SOCIETIES

American Academy of Pediatrics	Resident/Candidate Fellow (1998-2000)
American Prof. Society on the Abuse of Children	Member (1999-2003)
Northern Ohio Pediatrics Society	Member (2000-2003)
American Academy of Pediatrics	Fellow (2000-2010, 2019-present)
	• Section on Child Abuse and Neglect (2000-2010)
	• Council on Clinical Information Technology (COCIT) (2019-present)
American Medical Informatics Association	Fellow (2020-present), Member (2014, 2016-present)

PROFESSIONAL SERVICES

Invited reviewer (selected)
1. *American Academy of Pediatrics*
    - Council on Clinical Information Technology (COCIT) scientific program *(2021-23)*
2. *American Committee on Immunization Practices (2001)*
3. *American Medical Informatics Association*
    - Scientific program *(2016-present)*
    - Question writer for the Clinical Informatics Fellowship In-Service Exam *(2017,2021)*
4. *Case Western Reserve University School of Medicine, Primary Care Track*
    - Pre-publication review of website for students doing community preceptorships *(2002)*
5. *Centers for Disease Control (2003-4)*
6. *Clinical Pediatrics (2000)*
7. *Epic Systems Corporation*
    - Physicians Advisory Council (PAC) scientific program *(2016-2022)*
8. *Journal of Adolescent Health (2018-2020, 2022)*
9. *Journal of Hospital Medicine (2005)*

Advisory Groups (i.e., foundation services, etc.)
National:
1. **Physician's Advisory Council (Epic Systems Corp.)**
    - 2011 – present (member)
    - 2017 – 2019 (member of the Steering Board)

    NOTE: The Council comprises hundreds of physicians from around the world who use the Epic EHR. It hosts semi-annual conferences with peer-to-peer and vendor-to-customer sessions about innovative approaches to solving healthcare problems, to introduce new functionality, and to discuss development priorities. The Steering Board comprises 12 physicians nationally and it sets the priorities of the larger Council and serves as the scientific committee that evaluates submitted presentations and abstracts.
2. **Immunization Scheduling Experts Discussion Group (Epic Systems Corp., Member)**
    - 2016 – 2023 (member)

    NOTE: This invitation-only group comprises customer and vendor experts in immunizing adults and children and serves as a forum to discuss workflows and software development priorities with regards to immunization forecasting, ordering, documentation, data exchange, and data storage. The group stopped meeting in 2023.
3. **Epic Primary Care Pediatrics Steering Board (Epic Systems Corp.)**
    - 2016 – present (member, re-elected for a fourth consecutive 2-year term commencing July 2022)
    - 2017 – 2018 (Chairperson)

    NOTE: The Epic Primary Care Pediatrics Steering Board comprises 12 physicians who are peer-selected in a national election for a 2-year term. The mandate of the Board is to, "Lead the pediatrics community and advise Epic to create the best of the best content and provide recommendations for optimal pediatric care." At the beginning of my second year on the board, I was elected Board Chair by my peers.
4. **Epic Physician's Advisory Council Mentorship Program**
    - 2019 – present (Director and founder)

    NOTE: This program is customer initiated and administered, and is designed as a cross-institutional, cross-generational, physician-to-physician mentorship program. Participation is voluntary and open to any provider worldwide who is employed by an Epic customer or affiliate.

Year	Mentorship Pairings	Total Participants
2019-20	61	124
2020-21	73	123
2021-22	77	124
2022-23	95	134
2023-24	114	183

5. **Health Maintenance Brain Trust (Epic Systems Corp.)**
    - 2019 – present (member)

    NOTE: This invitation-only group comprises customer and vendor experts in the care of adults and children and serves as a forum to discuss Epic's periodicity forecasting engine and to help work through problems and set development priorities.

5. **Epic Children's Health Leadership Council (Epic Systems Corp.)**
   - 2019 – 2023 (member)
   - 2019 – 2021 (Chairperson of the Quality Subcommittee)

   NOTE: The Epic Children's Health Leadership Council comprises 17 physicians nationally who are experts in child-health and are tasked with defining the gold standard for the use of the Epic EHR across the care of children. The Council reviews existing configurations and builds on them to improve the quality of care for children. The standards identified by the Council serve as best practices for all organizations.
6. **CDC Table-Top Pilot, "Advancing Immunization-Related Capabilities Within Electronic Health Records and Other Clinical Software" (CNI Advantage, Panel Member)** (September 10, 2014)

   NOTE: This invitation-only group aimed to develop technical specifications for a proposed CDC-sponsored certification of electronic health records systems with regards to immunization functionality (forecasting, data storage, data exchange, etc.)

Regional/Local:
1. **Children's Health Initiative Committee** (Member, 2015 – present)
   Better Health Partnership
2. **Child Passenger Restraint Use Committee (**MetroHealth Liaison, 2001 – 2003**)**
   The Cleveland Foundation and Cuyahoga County Board of Health

COMMITTEE SERVICE

Hospital Affiliate
1. **Palm Library User's Group** (Member, 2001 – 2006)
   The MetroHealth System, Department of Information Services
2. **Physician's Advisory Committee** (Member, 2008 – 2010)
   The MetroHealth System, Department of Information Services
3. **Inpatient Order Sets Committee** (Member, Department of Pediatrics Representative, 2008 – 2014)
   The MetroHealth System, Department of Information Services
4. **Biomedical Informatics Committee** (Member, 2014 – present)
   The MetroHealth System, Department of Information Services
5. **Clinical Informatics Leadership Committee** (Member, 2014 – present)
   The MetroHealth System, Department of Information Services
6. **MyChart Steering Committee** (Member, 2014 – 2017)
   The MetroHealth System, Department of Information Services
7. **Data-Driven Decision-Making Team Committee** (Member, 2014 – 2017)
   The MetroHealth System, Department of Information Services
8. **ACO Quality Dashboard Committee** (Member, 2014 – 2019)
   The MetroHealth System, Department of Information Services
9. **Appointments, Promotions and Tenure Committee** (Member, 2019 – 2021)
   The MetroHealth System

Educational Committees
1. **Residency Advisory Committee** (Member, 1996 – 1998)
   Department of Pediatrics, Rainbow Babies and Children's Hospital
2. **Family Clinic Executive Committee** (Member, 1998 – 2006)
   Case Western Reserve University School of Medicine
3. **Clinical Competency Committee** (Member, 2016 – present)
   Clinical Informatics Fellowship, Case Western Reserve University School of Medicine (MetroHealth)
4. **Program Evaluation Committee** (Member, 2016 – present)
   Clinical Informatics Fellowship, Case Western Reserve University School of Medicine (MetroHealth)

TEACHING ACTIVITIES

Invited Presentations (including post-graduate and continuing medical education)

National:

NOTE: The Epic Systems Corp. is in Verona, WI. It hosts semi-annual, refereed, technical and scientific meetings during which I have been invited to speak. Audiences range from 40 to 300 people and include physicians, nurses, database administrators, programmers, and representatives from all informatics disciplines. Attendees come from almost every state in the United States, and several international locations, as well (e.g., The Netherlands, Germany, and United Arab Emirates). Some sessions awarded CME. The slides remain available on-line to the company's customer base. Co-presenters marked by an asterisk (*) were trainees or mentees at the time of the presentation.

1. **DS Bar-Shain**. *Obesity and Hypertension Tools for Pediatric Providers*. Physician's Advisory Committee, Epic Systems Corp., Verona, WI (April 7, 2011)
2. **DS Bar-Shain.** *ADHD Daisy Chain SmartSet.* Physician's Advisory Committee, Epic Systems Corp., Verona, WI (April 7, 2011)
3. **DS Bar-Shain**, *K Palcisco, and DC Kaelber. *Stepping-Stone Best Practice Advisories for Pediatric Hypertension.* Physician's Advisory Council, Epic Systems Corp., Verona, WI (Spring, 2012)
4. **DS Bar-Shain,** PJ Greco and C Longhurst. *Integrating BiliTool into Epic via a Custom Print Group***.** Physician's Advisory Council, Epic Systems Corp., Verona, WI (Spring, 2012)
   NOTE: Per Epic Systems Corp. data, since July 2013, the slides for this lecture have been downloaded more than 850 times. In addition, as a direct result of this presentation, this functionality was adopted by at least 40 other hospital systems.
5. **DS Bar-Shain**. *Flattening Related Data from Reporting Workbench*. Physician's Advisory Council, Epic Systems Corp., Verona, WI (Spring, 2012)
6. **DS Bar-Shain,** C Williams, and DC Kaelber. *We Will, We Will, Vaccinate You: Using Texting to Increase Immunization Rates.* Safety Net Forum, User Group Meeting, Epic Systems Corp., Verona, WI (September 13, 2012)
7. **DS Bar-Shain**. *Decision Support Deep Dive: Health Maintenance for Pediatric Immunizations*. Decision Support Forum, User Group Meeting, Epic Systems Corp., Verona, WI (September 10, 2012)
8. **DS Bar-Shain**, *K Palcisco and DC Kaelber. *A Suite of Pediatric Hypertension BPAs.* User Group Meeting, Epic Systems Corp., Verona, WI (September 11, 2012) (CME)
9. **DS Bar-Shain** and PJ Greco. *The Asynchronous Alert Train Improves Billing.* Physician's Advisory Council, Epic Systems Corp., Verona, WI (Spring, 2013) (CME)
10. **DS Bar-Shain**. *ADHD: Improving Daisy Chain Order Panels and SmartSet***.** Physician's Advisory Council, Epic Systems Corp., Verona, WI (Spring, 2013) (CME)
    NOTE: Per Epic Systems Corp. data, this lecture has been downloaded by more than 240 unique users.
11. **DS Bar-Shain**. <u>*EPIC CLASSIC*</u> - *Health Maintenance for Pediatric Immunizations: Better Usability Through Smarter Packaging*. User Group Meeting, Epic Systems Corp., Verona, WI (September 18, 2013) (CME)
    NOTE: Epic Classics is an e-learning curriculum for Epic customer and employee newcomers and veterans and consists of the best User Group Meeting and Advisory Council presentations. The courses in the Epic Classics curriculum are chosen by a group of physicians because they are the most highly rated and concern the most currently relevant topics. Per Epic Systems Corp. data, this lecture has been downloaded/viewed by more than 400 unique users.
12. **DS Bar-Shain** and DC Kaelber. *Communicating with Patients Outside of Visits.* User Group Meeting, Epic Systems Corp., Verona, WI (September 17, 2013)
13. **DS Bar-Shain**. *A New Research Tool: MyChart Questionnaires.* Physician's Advisory Council, Epic Systems Corp., Verona, WI (March 31, 2014) (CME)
    NOTE: Per Epic Systems Corp. data, this lecture has been downloaded by more than 350 unique users.
14. **DS Bar-Shain**. *Enhancing Build Using Physician Builders: Custom Schedule Column – Fluoride eligible (Pediatric)?* Physician's Advisory Council, Epic Systems Corp., Verona, WI (April 1, 2014)
15. **DS Bar-Shain** and PJ Greco. *Tracking the Young'uns: Pediatric Wellness Registry.* User Group Meeting, Epic Systems Corp., Verona, WI (September 18, 2014) (CME)
    NOTE: Per Epic Systems Corp. data, this lecture has been downloaded by more than 200 unique users.
16. **DS Bar-Shain** and PJ Greco. *P230 Success: Medical Messaging – MyChart Post-Visit Questionnaires.* Expert Group Meeting, Epic Systems Corp., Verona, WI (March 16, 2015)
17. **DS Bar-Shain** and PJ Greco. *Patient Entered Immunizations for Population Health.* User Group Meeting, Epic Systems Corp., Verona, WI (September 1, 2015) (CME)
    NOTE: This was selected by the organizers as one of a few "Success at [HIMSS Stage] Seven" sessions designed to highlight the work of health systems that have achieved HIMSS Stage 7 EMRAM (EHR

Adoption Model). Per Epic Systems Corp. data, this lecture has been downloaded by more than 800 unique users. In addition, as a direct result of this lecture and our subsequent sharing of the build, Kaiser Mid-Atlantic Region adopted the technology and, in the first season after deployment, garnered more than 6000 responses about influenza vaccine from their adult patients.

18. **DS Bar-Shain** and PJ Greco. *Patient Entered Immunizations for Population Health: Build Details.* Webinar hosted by Epic Systems Corp., Verona, WI (October 27, 2015)
NOTE: The audience included technical staff from more than 75 other Epic customers who were interested in implementing our custom development.

19. **DS Bar-Shain** and PJ Greco. *Health Maintenance for Adult Pneumococcal Immunizations.* Expert Group Meeting, Epic Systems Corp., Verona, WI (April 11, 2016) (CME)

20. **DS Bar-Shain**. *Health Maintenance for HIV Depression Screening.* Expert Group Meeting, Epic Systems Corp., Verona, WI (April 11, 2016) (CME)

21. **DS Bar-Shain** and J Siff. *Down the Opioid Rabbit Hole: Helping Patients Stay Out.* Physician's Advisory Council, Epic Systems Corp., Verona, WI (September 19, 2016) (CME)

22. **DS Bar-Shain** and PJ Greco. *Health Maintenance Using the Medicare Wellness Tracker Registry*. User Group Meeting, Epic Systems Corp., Verona, WI (September 21, 2016) (CME)
NOTE: Per Epic Systems Corp. data, 220 people registered to attend this lecture.

23. **DS Bar-Shain** and DC Kaelber. *Hypertension: Improvements in Diagnosis and Treatment*. User Group Meeting, Epic Systems Corp., Verona, WI (September 21, 2016)

24. **DS Bar-Shain**. *Updates to Health Maintenance for HPV Vaccines.* Webinar hosted by Epic Systems Corp., Verona, WI (November 11, 2016)
NOTE: The audience included clinical users and technical staff who are part of the vendor/customer Epic Immunizations Expert Group. The presentation detailed first-in-platform, custom functionality which provided immunization forecasting for HPV Vaccines in accordance with new Advisory Committee on Immunization Practice (ACIP) Guidelines. The detailed blueprints were made available to other Epic customers who wanted to customize their systems.

25. **DS Bar-Shain**, L Garber, PJ Greco, J Hoffman, and D Lemkin. *Eureka! Physician Programmers Reflect on Success.* Physician's Advisory Council: Expert Group Meeting, Epic Systems Corp., Verona, WI (May 1, 2017) (CME)
NOTE: Per Epic Systems Corp. data, this lecture has been viewed more than 40 times since February 2021.

26. **DS Bar-Shain** and U Vegallam. *Improving the Forecast: Clinical Decision Support for Immunizations (CDSi).* Clinical Advisory Council: Expert Group Meeting, Epic Systems Corp., Verona, WI (May 1, 2017) (CME)
NOTE: Per Epic System Corp. data, 247 people registered to attend this lecture.

27. **DS Bar-Shain** and PJ Greco. *Automated Immunization Reconciliation.* Physician's Advisory Council: Expert Group Meeting, Epic Systems Corp., Verona, WI (April 30, 2018) (CME)
NOTE: Per Epic Systems Corp. data, this lecture has been viewed more than 115 times since February 2021. It was subsequently designated as an <u>EPIC CLASSIC</u>.

28. **DS Bar-Shain.** *Decision Support for Elevated Pediatric Blood Pressures.* Physician's Advisory Council: User Group Meeting, Epic Systems Corp., Verona, WI (August 27, 2018) (CME)

29. **DS Bar-Shain** and J Siff. <u>*EPIC CLASSIC*</u> *- Down the Opioid Rabbit Hole: Helping Patients Stay Out.* User Group Meeting, Epic Systems Corp., Verona, WI (August 28, 2018) (CME)

30. **DS Bar-Shain** and M Tien. *Innovative Approaches to Pediatric Developmental Screening.* User Group Meeting, Epic Systems Corp., Verona, WI (August 29, 2018) (CME)
NOTE: Per Epic Systems Corp. data, this lecture has been viewed more than 30 times since February 2021.

31. **DS Bar-Shain**, L Garber, PJ Greco, J Hoffman, D Lemkin, and J Trudel. *Byte-Sized Pieces: Physician Programmers Explain Their Code.* Physician's Advisory Council: Expert Group Meeting, Epic Systems Corp., Verona, WI (May 6, 2019) (CME)
NOTE: Per Epic Systems Corp. data, 146 people registered to attend this lecture, and it has been viewed at least 75 times since February 2021.

32. **DS Bar-Shain**, B Moran, M Rizer and M Tien. *Mentoring for Career & Promotion: Leveraging Your Work in Epic.* Physician's Advisory Council: Expert Group Meeting, Epic Systems Corp., Verona, WI (May 6, 2019)
NOTE: Per Epic Systems Corp. data, 99 people registered to attend this lecture, and it has been viewed more than 95 times since February 2021.

33. **DS Bar-Shain** and J Siff. <u>*EPIC CLASSIC*</u> *- Down the Opioid Rabbit Hole: Helping Patients Stay Out.* User Group Meeting, Epic Systems Corp., Verona, WI (August 27, 2019) (CME).
NOTE: This was a reprise of a very popular talk. Per Epic Systems Corp. data, 289 people registered to attend this lecture.

34. **DS Bar-Shain** and PJ Greco. <u>*EPIC CLASSIC*</u> - *Automated Immunization Reconciliation: Lessons Learned.* User Group Meeting, Epic Systems Corp., Verona, WI (August 28, 2019) (CME). Re-broadcast as a virtual webinar during the Physician's Advisory Council: Expert Group Meeting (May 2021) (CME)
NOTE: Per Epic Systems Corp. data, 244 people registered to attend this lecture.
35. A Akande, **DS Bar-Shain**, B Clay, S Dean, *S Manney, *A Tevaarwerk, H Twedt. *Experiences with the PAC Mentorship Program. Physi*cian's Advisory Council: Expert Group Meeting, Epic Systems Corp., Verona, WI (May 2020). NOTE: this lecture was accepted during the peer-review process but was not presented due to the COVID-19 pandemic.
36. **DS Bar-Shain.** *Physician Builder Spotlight: Eliminating Vaccine Care Gaps from the Storyboard.* Epic Systems Corp. Virtual webinar. (March 19, 2021) NOTE: The audience included 183 live attendees and remains available for streaming by Epic physician builders who were interested in implementing our custom efficiency tools. The speaker rating score of 9.67 was the highest ever recorded in one of these sessions.
37. **DS Bar-Shain,** Clay B, *Manney S, *Tevaarwerk A. *Experiences with the Epic PAC Mentorship Program.* Physician's Advisory Council: Expert Group Meeting, Epic Systems Corp. Virtual webinar. (May 3, 2021) (CME)
NOTE: Per Epic Systems Corp. data, 898 people registered to attend this panel discussion.
37. **DS Bar-Shain.** *Closing Care Gaps with Storyboard and Combination Vaccines.* Physician's Advisory Council: Expert Group Meeting, Epic Systems Corp. Virtual webinar. (May 2021) (CME)
38. **DS Bar-Shain,** Tien M**.** *Custom Childhood Immunization Metrics to Enhance Tracking and Outreach.* Physician's Advisory Council: Expert Group Meeting, Epic Systems Corp. Virtual webinar. (May 2021) (CME)
39. **DS Bar**-**Shain**, J Hoffman, D Lemkin, and J Trudel. *MUMPS Isn't Just a Disease: Physician Programmers Explain Their Code.* Physician's Advisory Council: Expert Group Meeting, Epic Systems Corp. Virtual webinar (May 2021) (CME)
40. **DS Bar-Shain.** *3-Minute Version with Q&A – Closing Care Gaps with Storyboard and Combination Vaccines.* Epic Clinical Decision Support Monthly Forum. Virtual webinar. (June 8, 2021)
41. **DS Bar-Shain** and PJ Greco. *LOS Calculator & NoteWriter: Good for Telehealth and Beyond.* User Group Meeting, Epic Systems Corp., Verona, WI (August 25, 2021) (CME)
NOTE: Per Epic Systems Corp. data, 205 people registered to attend this lecture, and it has been viewed more than 85 times since February 2021.
42. **DS Bar-Shain.** *The Byron Oberst Address: Curating, Celebrating and Championing Your Failures.* Council on Clinical Information Technology, American Academy of Pediatrics National Conference and Exhibition. Virtual webinar. (October 10, 2021)
43. **DS Bar**-**Shain**, PJ Greco, L Garber, B Kim, N Riley. *The other MUMPS: Physician Programmers Explain Their Code.* Physician's Advisory Council: Expert Group Meeting, Epic Systems Corp. (May 2023) (CME)

Regional/Local (selected):
1. **DS Bar-Shain**. *The Pediatric Physical Exam.* Residents and Medical Students, Department of Oral Surgery, The MetroHealth System, Cleveland, OH (July 2003, July 2004, July 2005, July 2006)
2. **DS Bar-Shain**. *Palm Pilots for Pediatric Residents.* Residents and Medical Students, Department of Pediatrics, The MetroHealth System, Cleveland, OH (2003)
3. **DS Bar-Shain**. *Childproofing for Pediatricians.* Residents and Medical Students, Department of Pediatrics, The MetroHealth System, Cleveland, OH (2003)
4. **DS Bar-Shain**. *GRAND ROUNDS: Childhood Obesity for Pediatricians.* Department of Pediatrics, The MetroHealth System, Cleveland, OH (2003) (CME)
5. **DS Bar-Shain**. *GRAND ROUNDS: Childhood Obesity for Pediatricians.* Department of Pediatrics, Fairview Hospital, Cleveland, OH (2003) (CME)
6. **DS Bar-Shain**. *Boards Review: Child Abuse.* Residents and Medical Students, Department of Pediatrics, The MetroHealth System, Cleveland, OH (2004, 2005, 2006)
7. **DS Bar-Shain**. *Nuts and Bolts: Oral Rehydration.* Residents and Medical Students, Department of Pediatrics, The MetroHealth System, Cleveland, OH (2005, 2006)
8. **DS Bar-Shain**. *Ending Your Relationship with Your Pediatric Family Clinic Patients.* Year 2 Medical Students, Case Western Reserve University School of Medicine, Cleveland, OH (2006)
9. **DS Bar-Shain**. *Medical Informatics.* Residents and Medical Students, Department of Pediatrics, The MetroHealth System, Cleveland, OH (2007, 2008)
10. **DS Bar-Shain**. *When the End Is Nigh: Ending Relationships with Your Patients.* Residents and Medical Students, Department of Pediatrics, The MetroHealth System, Cleveland, OH (2007)
11. **DS Bar-Shain**. *GRAND ROUNDS: An Update on Childhood Obesity– Focus on Bariatric Surgery***.** Department of Pediatrics, The MetroHealth System, Cleveland, OH (2010) (CME)

12. **DS Bar-Shain**. *GRAND ROUNDS: An Update on Childhood Obesity: Focus on Bariatric Surgery*. Department of Pediatrics, Fairview Hospital, Cleveland, OH (2010) (CME)
13. **DS Bar-Shain**. *Fatherhood*. Panel Member at the Cuyahoga County Fatherhood Initiative, Cleveland, OH (Sept 9, 2011)
14. **DS Bar-Shain**. *GRAND ROUNDS: What's Under the Hood in Epic: Problem Lists and Preference Lists*. Department of Pediatrics, The MetroHealth System, Cleveland, OH (2011) (CME)
15. **DS Bar-Shain**. *GRAND ROUNDS: Pediatric Decision Support– What can we do in Epic?* Department of Pediatrics, The MetroHealth System, Cleveland, OH (March 8, 2013) (CME)
16. **DS Bar-Shain**. *Epic Expertise for APN's and PA's.* Advanced Practice Registered Nurse Council, The MetroHealth System, Cleveland, OH (June 4, 2015)
17. **DS Bar-Shain**. *Epic Expertise for Medical Informatics.* Associate and Assistant Directors of Clinical Informatics Meeting, The MetroHealth System, Cleveland, OH (September 17, 2015)
18. **DS Bar-Shain**. *Health Maintenance for Adult Pneumococcal Immunizations.* Department of Rheumatology Faculty and Fellows Teaching Meeting, The MetroHealth System, Cleveland, OH (January 15, 2016)
19. **DS Bar-Shain**. *Epic Expertise for Family Practice.* Department of Family Practice Faculty Meeting, The MetroHealth System, Cleveland, OH (January 27, 2016)
20. **DS Bar-Shain**, DC Kaelber. *High Blood Pressure in Kids: Not Just an Adult Problem*. Spring Learning Cooperative, Better Health Partnership, Cleveland, OH (April 13, 2018) (CME)
21. **DS Bar-Shain**. *Incorporating Body Composition Charts into an EHR*. 4th State-of-the-Art Reviews in Neonatal-Perinatal Medicine, Cleveland Clinic Foundation, Cleveland, OH (September 13, 2019) (CME)
22. **DS Bar-Shain**. *Fixing a Race Condition in Health Maintenance for HIV Depression Screening*. Clinical Informatics Fellowship Didactic Lecture, The MetroHealth System, Cleveland, OH (November 7, 2019, October 21, 2021)
23. **DS Bar-Shain**. *A Post-Mortem Analysis of a Coding Failure - New vs. Established*. Clinical Informatics Fellowship Didactic Lecture, The MetroHealth System, Cleveland, OH (March 5, 2020)
24. Duke, Sandra, **DS Bar-Shain**. *Clickbusters: MetroHealth's Experience.* Ohio Nursing Informatics Association. (May 14, 2021, virtual webinar)
25. **DS Bar-Shain.** *Case Study: Self-Scheduled Vaccinations via MyChart – Empowering Patients & Increasing Access.* HIMMS Stage 7 Recertification Site Visit, The MetroHealth System, Cleveland, OH (December 7, 2023)

Trainees / Mentees (selected): Name, training program (years), my role, last known position.

Post-Graduate Fellows:
1. Cassel, Andre MD – Clinical Informatics Fellow (graduated 2018). Research Advisor and Fellowship Mentor x 2 years. PM&R Physician and Clinical Informaticist, VA, New Haven, CT
2. Davis, Katherine R. MD – Clinical Informatics Fellow (graduated 2019). Core faculty in the program x 2 years. Research Advisor x 1 year. Clinical Informaticist and Family Medicine Physician in Ohio.
3. Garrels, Kristina MD – Clinical Informatics Fellow (graduated 2020). Research mentor and core faculty in the program x 2 years. Clinical Informaticist and Urologist in Canada.
4. Hossain, Rubayet MD – Clinical Informatics Fellow, (graduated 2022). Core faculty in the program and Research Advisor x 2 years. Clinical Informaticist and Emergency Medicine Physician, Mount Sinai Hospital (New York, NY).
5. Kim, Eric MD – Clinical Informatics Fellow, 2nd year (graduated 2023). Core faculty in the program. Family Physician and Clinical Informaticist, The MetroHealth System.
6. Labbad, Gabriel MD – Clinical Informatics Fellow (graduated 2020). Fellowship Mentor and Research Advisor x 2 years. Clinical Informaticist and OB/GYN in California.
7. Liang, Katherine MD – Clinical Informatics Fellow, 2nd year (current). Core faculty in the program.
8. Monroy, Daniel MD – Adult Critical Care fellow (graduated 2015). Quality Improvement Initiative Preceptor x 6 months.
9. Nair, Kiron MD – Clinical Informatics Fellow, 2nd year (current). Core faculty in the program.
10. Novince, Ryan MD – Internal Medicine resident (graduated 2016). Research Advisor x 3 months. Clinical Informatics Fellow (2016-2018, did not graduate). Research Advisor x 2 years. Lost to follow-up.
11. Riley, Nicholas J. MD PhD – Clinical Informatics Fellow (graduated 2019). Core faculty in the program x 2 years. Research Advisor x 1 year. Joined faculty in Clinical Informatics and Family Medicine at MetroHealth.
12. Ruff, Jessica MD – Clinical Informatics Fellow (graduated 2021). Research Advisor x 1 year and Core faculty in the program x 2 years. Wellness and Preventative Medicine specialist at the Cleveland Clinic Foundation.

13. Sellers, Devereaux MD – Clinical Informatics Fellow, 2nd year (graduated 2023). Core faculty in the program and faculty mentor. Clinical Informaticist and Pathologist, The MetroHealth System.
14. Zhao, Fang MD – Clinical Informatics Fellow, (graduated 2022). Core faculty in the program and Research Advisor. Clinical Informaticist and Pathologist, Cincinnati Children's Hospital (Cincinnati, OH).

Residents:
1. Ahmed, Amarra MD – Pediatric resident (graduated 2017). Continuity Clinic Preceptor x 1 year. Fellow in Allergy Immunology, John's Hopkins.
2. Ararat, Erhan MD – Pediatric resident (graduated 2014). Continuity Clinic Preceptor x 2 years.
3. Bajwa, Momena MD – Internal Medicine-Pediatrics resident (graduated 2011). Continuity Clinic Preceptor x 2 years. Practicing physician.
4. Barakat, Mazen MD – Internal Medicine-Pediatrics resident (graduated 2009). Continuity Clinic Preceptor x 4 years.
5. Benjamin, Jennifer MD – Pediatric resident (graduated 2014). Continuity Clinic Preceptor, Research Advisor, and Residency Advisor (x 2 years each). Fellow in Developmental and Behavioral Pediatrics.
6. Bhardwaj, Amrita MD – Pediatric resident (graduated 2018). Continuity Clinic Preceptor x 2 years.
7. Bonnet, David MD – Pediatric resident (graduated 2002). Continuity Clinic Preceptor x 3 years.
8. Britton, Ian MD – Internal Medicine-Pediatrics resident (graduated 2015; Chief Resident 2015-16). Quality Improvement Initiative Preceptor x 1 year. Pulmonary and Critical Care Fellow in San Diego, CA.
9. Copenhaver, Melanie MD – Internal Medicine-Pediatrics resident (graduated 2015). Continuity Clinic Preceptor x 4 years, and Quality Improvement Initiative Preceptor x 1 year.
10. Das, Anirudha MD – Pediatric resident (graduated 2016). Continuity Clinic Preceptor x 1 year. Practicing Neonatologist, Cleveland Clinic Foundation.
11. Friedman, Joshua MD – Pediatric resident (graduated 2007). Continuity Clinic Preceptor and Residency Advisor x 3 years. Practicing Pediatrician and Child Abuse specialist.
12. Gera, Samir MD – Pediatric resident (left program in 2024, did not graduate). Continuity Clinic Preceptor x 2 years.
13. Gisser, Jonathan MD – Pediatric resident (graduated 2004). Continuity Clinic Preceptor and Residency Advisor x 3 years. Pediatric Gastroenterologist at Nationwide Children's Hospital.
14. Goswami, Shrea MD – Pediatric resident (graduated 2021). Continuity Clinic Preceptor x 3 years. Fellow in Pediatric Nephrology at Riley Children's Hospital.
15. Green, Alex MD – Pediatric resident (graduated 2007). Continuity Clinic Preceptor and Residency Advisor x 3 years. Practicing Pediatric Gastroenterologist.
16. Gupta, Nisha MD – Pediatric resident (graduated 2017). Continuity Clinic Preceptor x 1.5 years. Pediatric Emergency Medicine Fellow, UCSF Benoit Children's Hospital.
17. Hanlon, Kelly MA – Pediatric Psychology Resident (graduated 2018). Continuity Clinic Preceptor x 1 year.
18. Herrera, Nicholas MD – Internal Medicine-Pediatrics resident (graduated 2014). Continuity Clinic Preceptor x 4 years. Fellow in Pediatric and Adult Nephrology.
19. Hirsh, Erica DO – Pediatric resident (graduated 2015). Continuity Clinic Preceptor x 3 years. Practicing Primary Care Pediatrician.
20. Husarik, Nancy MD – Internal Medicine-Pediatrics resident (graduated 2001). Continuity Clinic Preceptor x 4 years.
21. Ikezuaga, Ketra MD – Pediatric resident (did not graduate, left program in 2009). Residency Advisor x 1 year.
22. Joseph, Rachel DO – Pediatric resident (graduated 2019). Continuity Clinic Preceptor x 2 years. Pediatrician in Texas.
23. Kamath, Samir MD – Pediatric resident (graduated 2005). Continuity Clinic Preceptor x 3 years. Practicing Pediatric Intensivist.
24. Leymaster, Kirsten MD – Pediatric resident (graduated 2002). Continuity Clinic Preceptor x 3 years. Practicing Primary Care Pediatrician.
25. Mancini, Kathryn J MA – Pediatric Psychology Resident (graduated 2018). Continuity Clinic Preceptor x 1 year.
26. Masri, Abdelrahman MD – Pediatric resident MetroHealth (current). Continuity Clinic Preceptor x 1 year.
27. Mathew, Anand MD – Pediatric resident (graduated 2013). Residency Advisor x 3 years.
28. Mital, Aditi MD – Pediatric resident (graduated 2020). Continuity Clinic Preceptor x 1 year. Pediatric GI fellow at Cleveland Clinic Foundation.
29. Newton, Kelsey MS – Pediatric Psychology Resident (graduated 2017). Pediatric Continuity Clinic Preceptor x 1 year. Child Psychology Doctoral Fellow in Texas.
30. Nsiah-Kumi, Phyllis MD – Internal Medicine-Pediatrics resident (graduated 2005). Continuity Clinic Preceptor x 4 years. Practicing Internist. Director of Women's Health at the Cleveland VA.

31. Nwankwo, Uchebike MD – Internal Medicine-Pediatrics resident (graduated 2011). Continuity Clinic Preceptor x 4 years.
32. Pandey, Vishal MD – Pediatric resident (graduated 2009). Continuity Clinic Preceptor x 2 years. Practicing Neonatologist.
33. Pearce, Anjali MD – Internal Medicine-Pediatrics resident (graduated 2009). Continuity Clinic Preceptor x 3 years.
34. Petrosiute, Agne MD – Pediatric resident (graduated 2008). Continuity Clinic Preceptor x 3 years. Practicing Pediatric Hematologist-Oncologist.
35. Puri, Pooja MD – Pediatric resident x (graduated 2012). Continuity Clinic Preceptor x 3 years. Practicing Pediatric Pulmonologist.
36. Reddy, Shweta DO – Pediatric resident (graduated 2014; Chief Resident 2014-15). Continuity Clinic Preceptor and Residency Advisor x 3 years. Practicing Primary Care Pediatrician.
37. Ross, Daron MD – Pediatric resident (current). Continuity Clinic Preceptor x 2 years.
38. Saeed, Haleema MD – Pediatric resident (graduated 2005). Continuity Clinic Preceptor x 3 years. Practicing Pediatric Hematologist-Oncologist.
39. Sandhya Ravi Chandar, Marie Christianne MD – Pediatric resident (graduated 2020). Continuity Clinic Preceptor x 6 months. Practicing Pediatrician in Arizona.
40. Shaikh, Farhat MD – Internal Medicine-Pediatrics resident (graduated 2008). Continuity Clinic Preceptor x 4 years. Practicing Hospitalist.
41. Shefner, Laura MD – Pediatric resident (graduated 2016). Continuity Clinic Preceptor x 2 years. Practicing Primary Care Pediatrician in the MetroHealth System.
42. Shumyatcher, Yana MD – Pediatric resident (graduated 2007). Continuity Clinic Preceptor x 2 years. Practicing Physiatrist.
43. Subbiah, Vivek MD – Internal Medicine-Pediatrics resident (graduated 2008). Continuity Clinic Preceptor x 3 years. Practicing Pediatric and Adult Hematologist-Oncologist.
44. Tuli, Jagdeep MD – Pediatric resident (graduated 2020). Continuity Clinic Preceptor x 2 years. Pediatrician in New York.
45. Veerajalandhar, Allareddy MD – Pediatric resident (graduated 2008). Continuity Clinic Preceptor x 3 years. Practicing Pediatric Intensivist.
46. White, Theresa DO – Pediatric resident (graduated 2019). Chief Resident (2020). Continuity Clinic Preceptor x 2 years. Pediatrician in Texas.
47. Wicoff, Maribeth MA – Pediatric Psychology Resident (graduated 2018). Continuity Clinic Preceptor x 1 year.
48. Wright, Bridget MD – Internal Medicine-Pediatrics resident (graduated 2004). Continuity Clinic Preceptor x 3 years. Practicing Pediatric and Adult Rheumatologist.
49. Zabrowski, Douglas MD – Pediatric resident (graduated 2013). Continuity Clinic Preceptor and Residency Advisor x 3 years. Fellow in Pediatric Gastroenterology.

Graduate Students:
1. Shah, Shilp MD – Graduate Student, Master's in Public Health Program, Case Western Reserve (graduated 2014). Capstone Project Committee Member x 1 year. Emergency Medicine Resident, The MetroHealth System.

Medical Students (selected):
1. Clark, Aaron MD – Medical Student in Primary Care Track at Case Western Reserve University School of Medicine (graduated 2004). Clinical Preceptor x 1 year.
2. Runkle, Ann MD – Medical Student at Lerner College of Medicine, Case Western Reserve University School of Medicine (graduated 2017). Research Advisor x 1 year. Emergency Medicine Resident in Maine.

Professional Mentees:
1. Agbeyegbe, Kinglesy MD – Adult Hospitalist and Applied Clinical Informaticist, Wellstar Medical Group, Atlanta, GA. Mentor x 1 year in the Epic PAC Mentorship Program (2021). Same.
2. Manney, Sarah DO – Pediatrician and Clinical Informaticist, Essentia Health, Duluth, MN. Mentor x 1 year in the Epic PAC Mentorship Program (2019). Promoted to Chief Medical Informatics Officer, Essentia Health.

Teaching & Decision Support Materials Produced

NOTE: Projects marked with an asterisk (*) involved a trainee or mentee.

A. Health Maintenance Functionality

Note: Health Maintenance is the preventative medicine tracking and forecasting engine within the Epic electronic health record.

1. *Pediatric Immunizations (2012)
2. Adult Immunizations (2013)
3. Pediatric Lead Screening (2013)
4. Pediatric Anemia Screening (2013)
5. Pediatric Vision Screening (2013)
6. Pediatric Hearing Screening (2013)
7. Pediatric Well Child Care Yearly (2013)
8. Pediatric HIV Screening (2014)
9. Pediatric Lipid Profile Once (2014)
10. Pediatric Obesity Screening (2014)
11. *Perinatal Hepatitis C Exposure (2015)
12. Adult Pneumococcal Immunizations (2015)
13. HIV Depression and Psychosocial Co-Morbidities Screening (2015)
14. Meningococcal B Vaccines (2016)
15. Human Papillomavirus Vaccines (2016)
16. Implementation of immunization barcode scanning throughout the MetroHealth System (2017).
    Piloted in August 2017 in the Main Campus pediatric clinics, the use of a barcode scanner was demonstrated to streamline nursing workflows, improve patient throughput, and decrease documentation errors. The technology was judged so successful that, before the three-month pilot had ended, MetroHealth leadership moved to adopt the technology throughout the MetroHealth System.
17. Hep B Vaccine for Adult Diabetics (2018)
18. Adult Zoster Vaccine (Shingrix) (2018)
19. Care Gap Ordering for Pediatric Immunizations (2020)
20. COVID-19 Vaccines (2021)
21. Revised Breast Cancer Screening (2022)
22. Adolescent depression screening (2023)
23. Optional HPV Vaccine from 27-45 years (2023)
24. COVID-19 Vaccine updated formulation (2023)
25. RSV Vaccine (optional 60+ years; in pregnancy; and for pediatric patients) (2023)

B. Order Sets

1. Pediatric Breastfeeding SmartSet (2006)
2. Pediatric Encopresis SmartSet (2008)
3. Pediatric Failure to Thrive SmartSet (2008)
4. Pediatric Anemia Workup SmartSet (2008)
5. Pediatric Fluoride Varnish SmartSet (2009)
6. *Pediatric Developmental Screening SmartSet (2009)
7. Pediatric ADHD Daisy Chain SmartSet (2009)
8. Pediatric Hypertension SmartSet (2011)
9. Pediatric Developmental Delay SmartSet (2011)
10. Pediatric Health Maintenance BPA SmartSet (2012)
11. Pediatric Asthma SmartSet (2012)
12. Pediatric Vitamin D SmartSet (2012)
13. Adult Immunization SmartSet (2013)
14. *Pediatric Weight Management SmartSet (2014)

C. Clinical Advisories

1. *Pediatric BP Triage BPA (2011)
2. *Pediatric BP Provider BPA (2011)
3. Pediatric Health Maintenance Due (2012)
4. Missing 96372 For SQ/ IM Injection - In basket To User @ S+15 Minutes - Asynchronous (2012)
5. Adult Immunization BPA For Providers (2013)
6. Ambulatory Nutrition Consult Needed (2013)
7. *Colorectal Cancer Screening Due - For Non-Providers (2014)
8. *Hemoccult Due - For Providers (2014)
9. *Colonoscopy Q10 Years Screening Due - For Providers (2014)

10. *Colonoscopy with Frequent HM Modifier Due - For Providers (2014)
11. Influenza Vaccine Due for Adult Ambulatory (2014)
12. Pediatric More Frequent Lead Testing for Lead 5+ - In basket Alert (2014)
13. Pediatric Apply High Risk Lead Zip Code HM Modifier – Yink Base (2014)
14. Fragile X Test May Not Be Needed for Male Patient (2014)
15. *Restrictive Red Cell Transfusion Alert (2014)
16. Check OARRS Every 365 Days for Schedule II Stimulant (2014)
17. Check OARRS Every Time for Patients Who Had Prior Concerning Encounter Classification (2014)
18. Last OARRS Reviewed Generic Was < 365 Days Ago for Schedule II Stimulant (2014)
19. Adult Triage HTN Alert (2014)
20. Pediatric ED Triage Sepsis BPA (2015)
21. Health Maintenance Screening Mammogram Due (2015)
22. Summary of Care – MU P224 – Functional Cognitive Status Needs Review (2015)
23. Contrast Induced Nephropathy (CIN) Alert (2015)
24. Nephrogenic Systemic Fibrosis (NFS) MRI Alert (2015)
25. *Don't Order Vit D 1,25 Unless Necessary Alert (2015)
26. *Duplicative Lab Order Alert (2015)
27. Adult Pneumococcal Guardrail Alert (2015)
28. *Inpatient Order Hepatitis C Test When Due by Health Maintenance (2016)
29. Zika Testing in Pregnancy (2016)
30. Append MetroHealth Pharmacies to Patient's Preferred List (Silent) (2016)
31. Triage Influenza BPA (2017)
32. Don't Order Chlamydia Culture Except in Limited Circumstances BPA (2018)
33. Triage Measure Adult Height in Primary Care (2018)
34. *Avert NSAID Prescribing in Chronic Kidney Disease (2018)
35. *Inpatient HIV Testing When Due by Health Maintenance (2018)
36. *Don't Order ACE/ARB If Childbearing-Age Female Who Lacks Long-Term Contraception (2019)
37. United Way 2-1-1 Peds Referral (2019)
38. *Post-Partum Anti-D Prophylaxis (2019)
39. *Early Sepsis Score Reached 5+ Since ED or Admit (2019)
40. Needs Pre-Procedure Labs for Interventional Radiology BPAs (2020)
41. Caution ordering PIP/TAZ and VANC Concurrently (2020)
42. Consider Non-Accidental Trauma in the Pediatric ED (2020)
43. Don't co-administer COVID-19 vaccine within +/- 14 days of specific other vaccines (2021)
44. Consider delaying TB testing after COVID-19 vaccination (2021)
45. *Don't order HBA1C more frequently than every 90 days (2021)
46. Shared decision making for early breast cancer screening 35-39 years old (2022)

D. **Clinical Documentation Templates and Tools**
1. Pediatric Obesity SmartText (2003)
2. Pediatric Enuresis SmartText (2004)
3. Pediatric Asthma Action Plan Letter (2007)
4. Pediatric Lead Letter (2007)
5. Pediatric Oral Rehydration Letter (2010)
6. DBS Encopresis Letter (2010)
7. DBS Asthma SmartText (2011)
8. DBS Obesity Screening Results Letter (2012)
9. *Well Child Care SmartTexts (2014)
10. Opioid Risk Tool (2015)
11. Last Preventative Visit Display Columns and SmartText (2019)
12. Preferred Name SmartLink (2019)
13. Telehealth Time SmartForm and Close Encounter Extension (2020)
14. SmartForm for Video Telehealth Time-Based Billing and Close Encounter Validations (2020, 2021)

E. **Patient Registries**
1. Wellness Registry – Pediatrics (2014)
2. Colonoscopy Registry (2014)
3. High Risk Pneumococcal – Adult (2015)
4. Medium Risk Pneumococcal – Adult (2015)
5. High Risk for Vaccine Preventable Disease Registry (2016)
6. Prenatal Care Registry (2018)

F. Patient Questionnaires
1. Uro-gynecology Urogenital Atrophy Questionnaire: Patient Entered Questionnaire + Consent
2. Uro-gynecology Patient Satisfaction Survey: Patient Entered Questionnaire + Consent
3. Uro-gynecology Pelvic Floor Distress Inventory: Patient Entered Questionnaire + Consent
4. Uro-gynecology Pelvic Floor Impact Questionnaire: Patient Entered Questionnaire + Consent
5. MyChart Post-Visit Questionnaire on Close Encounter
6. Patient Entered Adult Immunization Data
7. Medicare Health Risk Assessment

G. Catalog of Custom Coded Functionality
1. Routine to processes a flat-file and create MyChart patient entered questions and questionnaires (2016)
2. Extension Record which augments the patient's preferred pharmacy list (2016)
3. Property to return age corrected for gestation with options for cutoffs (2017)
4. Property to return data about collaborative care programs based on flowsheet data (2017)
5. Property to return hours from rupture of membranes to birth time (2017)
6. Property to return new vs. established based on retrospective billing data (2017)
7. Property to return Health Maintenance related data about immunizations (2017)
8. Property to return last order date which meets a rule (2017)
9. SmartLink to return patient-specific Health Maintenance data – configurable (2018)
10. Extension Record to postpone an immunization-related Health Maintenance Topic when prescribed as medication (2018)
11. Extension Record to transfer postpone data from one Health Maintenance Topic to another (2018)
12. Extension Record to provide enhanced BMI, height, and weight data in patient header (2019)
13. Extension Record to flip certain in-person visits to scheduled telephone visits and automatically send MyChart messages about the change during COVID-19 pandemic (2020)
14. Extension Record to warn about mis-matched LOS and telephone time documented via SmartForm during COVID-19 pandemic (2020).
15. SmartForm with extensive scripting and custom Extension Record to suggest time-based Level of Service for video visits during COVID-19 pandemic. Extension Record to warn about mis-matched suggested vs. entered LOS upon signing the visit. (2020, 2021)
16. Properties to return the Nth immunization date, and Nth immunization question value and date. (2021)
17. Set immunization-specific question response based on series of rules (2021)
18. Print group to link to Epic's bilirubin activity from relevant labs in In Basket and Chart Review (2021)
19. Reporting Workbench action pack to switch immunization X to Y in a subset of LPL records (2022)
20. Extension to select the earliest appropriate vaccination date for a desired set of self-scheduled vaccines (2022)
21. Property to determine date corresponding to a specified gestational age (2023)
22. Property to search the maternal immunization records from a baby's record (2023)

H. Other
1. *Norris Body Fat Percentage Growth Charts for Newborns (2019)
2. Enhanced In basket Message Definition for Unread Patient Messages (2019)
3. Early Detection of Sepsis Predictive Model (2019)
4. Self-scheduled pediatric vaccination appointments via MyChart (2022)

RESEARCH SUPPORT (recent to oldest)

1. **CDC (unspecified number)**   **M Klompas (PI)**   **09/13/21 – 09/12/23**
   Sponsor: Center for Disease Control and Prevention (CDC)
   Title: *Safety and Healthcare Epidemiology Prevention Research Development (SHEPheRD), Program2021 Domain 1-A012, Electronic Support for Public Health-VAERS (ESPVAERS) for COVID-19*
   Goal: To update and revise computer algorithm to detect vaccine adverse events, including COVID-19, and report them to the CDC.
   Role: Co-Investigator
   Effort: 2.5% salary support
   Contribution: I am helping to refine and validate algorithms to detect potential adverse events, and the messaging scripts sent to providers.

2. **8231691**   **S Kane (PI)**   **09/01/13 – 08/31/15**
   Sponsor: Pfizer Corp.
   Title: *Utilization of the electronic medical record to evaluate vaginal atrophy in a geriatric primary care population; measuring impact of screening and treatment on quality of life and patient satisfaction*
   Goal: To use electronic health record and electronic personal health record tools (through Epic and Epic's MyChart) to screen and evaluate management of vaginal atrophy in geriatric primary care patients.
   Role: Co-Investigator
   Effort: 10% salary support
   Contribution: I designed the consent process, built all the patient-entered questionnaires, and was responsible for bulk assignment of a subset of the questionnaires. I presented the technical aspects of the project at a national meeting.

3. **No grant number**   **D Kaelber (PI)**   **02/01/13 – 09/15/13**
   Sponsor: JBS International
   Title: *Using Electronic Health Record Technologies to Improve Adult Vaccinations*
   Goal: To develop electronic health record-based processes to alert providers and adult patients regarding influenza, pneumococcus, diphtheria, tetanus, acellular pertussis, human papilloma virus, and herpes zoster vaccine opportunities.
   Role: Co-Investigator
   Effort: 10% salary support
   Contribution: I built or modified the preventative health tracking mechanisms for the various vaccines, the clinical advisory, and the conditional order set which eases the workload on adult primary care providers. I presented the technical aspects of the project at a national meeting.

4. **CDC 2011-N-13526**   **M Klompas (PI)**   **09/01/11 – 08/31/13**
   Sponsor: Center for Disease Control and Prevention (CDC)
   Title: *Electronic Support for Public Health - Vaccine Adverse Events Reporting System*
   Goal: To develop a computer algorithm to detect vaccine adverse events and report them to the CDC.
   Role: Co-Investigator
   Effort: 5% salary Support
   Contribution: I helped develop the algorithm which detects potential adverse events, and the messaging script sent to providers. I presented the work at a national meeting.

5. **No grant number**   **D Kaelber (PI)**   **02/15/12 – 02/31/13**
   Sponsor: Society of Adolescent Health and Medicine
   Title: *Using Electronic Health Record Technologies to improve Adolescent Vaccination*
   Goal: To develop electronic health record-based processes to alert providers and patients regarding all adolescent vaccine opportunities.
   Role: Co-Investigator
   Effort: 10% salary support
   Contribution: I designed and built the preventative health tracking mechanism for the various pediatric vaccines, the clinical advisory, and the conditional order set which eases the workload on pediatric and adolescent primary care providers. I helped develop the messaging algorithms, performed data analysis, and helped write the manuscript. I presented the work at several national meetings. The clinical decision support was cited as a Best Practice by the Joint Commission; the reviewer commented that it was, "The best immunization ordering and tracking system," that she had ever seen.

6. **No grant number**   **D Kaelber (PI)**   **01/01/11 – 12/31/11**
   Sponsor: Kaiser Health Plan of Ohio
   Title: *Diagnosing and Treating Hypertension in Children and Adolescents*
   Goal: To develop and implement advanced clinical decision support EHR tools for the diagnosis and management of pediatric hypertension.
   Role: Key Study Personnel
   Effort: 5% salary support
   Contribution: I designed and built the clinical advisories aimed at triage personnel and providers, and the order set for providers. I performed the data analysis. I presented the work at several national meetings.

BIBLIOGRAPHY *(published or in press only) (chronological order)*

https://www.ncbi.nlm.nih.gov/myncbi/1pq5rJ7-gfkAi/bibliography/public/
Co-authors marked with an asterisk (*) were trainees or mentees at the time of submission.

Peer Reviewed Articles

1. AD Heggie, **D Bar-Shain**, et al. *Identification and quantitation of ureaplasmas colonizing the respiratory tract and assessment of their role in the development of chronic lung disease in preterm infants.* Pediatric Infectious Disease Journal, 2001;20:854-9.

2. **Bar-Shain, David S.,** Margaret M. Stager, *Anne P. Runkle, Janeen B. Leon, and David C. Kaelber. *Direct Messaging to Parents/Guardians to Improve Adolescent Immunizations.* Journal of Adolescent Health Supplement, 56.5 (2015): S21-26.

3. Baker MA, DC Kaelber, **DS Bar-Shain**, PL Moro, B Zambarano, M Mazza, C Garcia, A Henry, R Platt, M Klompas. *Advanced Clinical Decision Support for Vaccine Adverse Event Detection and Reporting.* Clinical Infectious Diseases. (2015): Sep 15;61(6):864-70. doi: 10.1093/cid/civ430. Epub 2015 Jun 9. PMID: 26060294. DOI: 10.1093/cid/civ430

4. Einstadter D, Bolen SD, Misak JE, **Bar-Shain DS**, Cebul RD. Association of Repeated Measurements with Blood Pressure Control in Primary Care. JAMA Intern Med. 2018 Jun 1;178(6):858-860. doi: 10.1001/jamainternmed.2018.0315. PubMed PMID: 29710186; PubMed Central PMCID: PMC6061958.

5. *Hojat LS, Greco PJ, *Bhardwaj A, **Bar-Shain D,** Abughali N. *Using Preventive Health Alerts in the Electronic Health Record Improves Hepatitis C Virus Testing Among Infants Perinatally Exposed to Hepatitis C.* The Pediatric Infectious Disease Journal. 2020 Oct;39(10):920-924. DOI: 10.1097/inf.0000000000002757.

6. Bolen S, Love TE, Einstadter D, Lever J, Lewis S, *Persaud H, *Fiegl J, Liu R, Ali-Matlock W, **Bar-Shain DS,** Caron A, Misak J, Wagner T, Kauffman E, Cook L, Hebert C, White S, Kobaivanova N, Cebul R. *Improving Regional Blood Pressure Control: A Positive Deviance Tiered Intensity Approach.* Journal of General Internal Medicine. 36, 1591–1597 (2021). https://doi.org/10.1007/s11606-020-06480-z
   NOTE: In October 2022, this paper was selected by the JGIM Quality Improvement Science and Implementation Science Working Group as one of the best QIS/IS articles of the past few years.

7. Tarabichi Y, Cheng A, **Bar-Shain D**, McCrate BM, Reese LH, Emerman C, Siff J, *Wang C, Kaelber DC, Watts B, Hecker MT. *Improving Timeliness of Antibiotic Administration Using a Provider and Pharmacist Facing Sepsis Early Warning System in the Emergency Department Setting: A Randomized Controlled Quality Improvement Initiative.* Crit Care Med. 2022 Mar 1;50(3):418-427; doi:10.1097/CCM.0000000000005267. PubMed PMID: 34415866.

8. *Brackney K, *Labbad G, Hersh A, Rincon M, **Bar-Shain D,** Babb R, Gibson K. *Missed RHIG administration to postpartum patients in two health systems: an unrecognized patient safety risk.* Am J Obstet Gynecol Global Reports. (2022) 2(2):1000038. DOI: https://doi.org/10.1016/j.xagr.2021.100038

Invited, Peer-Reviewed, On-Line Monographs

Note: Epic Clinical Programs detail recognized and proven, national-leading, EHR patient-care initiatives and explain their strategy, build, and outcomes. Submissions are peer-reviewed by clinicians, project managers, and technical writers. They are shared on-line with world-wide customers of the Epic Systems Corp. and are a principal means of disseminating customer-developed innovations so that they can be replicated in other health systems.

1. Moran, Molly, and **DS Bar-Shain**. *"Epic Clinical Program: Increasing Up-to-Date Pediatric Immunizations."* Includes companion technical catalog. Epic UserWeb. Epic Systems Corp., 11 Jan. 2013. NOTE: Per Epic Systems Corp. data through November 2021, this publication has been downloaded by ~2000 users in Epic's customer base. This monograph was revised and re-published in 2016 with specifications for both pediatric and adult immunizations.

2. Zeiss, McKenzie, and **DS Bar-Shain**. *"Epic Clinical Program: Ordering a 90-day Supply of ADHD Medications More Efficiently."* Epic UserWeb. Epic Systems Corp., 7 July 2014. Web. 12 Dec. 2021. <https://galaxy.epic.com/?#Browse/page=1!68!421!2814933&from=Galaxy-Redirect>. NOTE: This work was early adopted for ADHD ordering by at least 5 other health systems in the United States. Furthermore, Per Epic Systems Corp. data through November 2021, this publication has been downloaded by ~3,000 users in Epic's customer base. In 2014, the Epic Systems Corp. adopted the core technology into the Epic Foundation System to support ordering Schedule II medications; this makes the content available to all current and future Epic customers.

3. Guyton, Andrew, and **DS Bar-Shain**. *"Epic Clinical Program: Conducting Research Studies with MyChart Questionnaires."* Epic UserWeb. Epic Systems Corp., 27 Mar. 2014. Web. 12 Dec. 2021. <https://galaxy.epic.com/?#Browse/page=1!68!421!2819873&from=Galaxy-Redirect> NOTE: Per Epic Systems Corp. data through November 2021, this publication has been downloaded by ~2000 users in Epic's customer base.

4. Portier, Faith, and **DS Bar-Shain.** *"Epic Clinical Program: Increasing Up-to-Date Pediatric and Adult Immunizations."* <u>Epic UserWeb</u>. Epic Systems Corp., 17 Mar. 2016. Web. 12 Dec. 2021. <https://galaxy.epic.com/?#Browse/page=1!68!421!2805952&from=Galaxy-Redirect>.
   NOTE: Per Epic Systems Corp. data through November 2021, this publication and its 2013 predecessor have been downloaded by ~1500 users in Epic's customer base. Compared to the entire library of Clinical Programs, their views and downloads are ranked #3 of 10 for pediatric Clinical Programs, and #38 of 80 overall.

5. Mendenhall, Meg, and **DS Bar-Shain.** *"Epic Clinical Program: Improving Detection of Pediatric Hypertension."* Epic UserWeb. Epic Systems Corp., 08 Sep. 2016. Web. 12 Dec. 2021. <https://galaxy.epic.com/?#Browse/page=1!68!421!3318269&from=Galaxy-Redirect>.
   NOTE: Per Epic Systems Corp. data through November 2021, this publication has been downloaded by ~2000 users in Epic's customer base.

6. **Epic's General Pediatric Specialty Steering Board**. *"Managing Adolescent Confidentiality in Epic: Recommendations of Epic's General Pediatric Specialty Steering Board."* <u>Epic UserWeb</u>. Epic Systems Corp., 15 May 2019. Web. 12 Dec. 2021. <https://galaxy.epic.com/Search/GetFile?url=1!68!100!100027088&rank=1&queryid=88966847&docid=118717>
   NOTE: This white paper incorporates my input and details our vision of how Epic should be configured and developed to ensure adolescent confidentiality. It was published on the Epic UserWeb and is available to the world-wide community of Epic providers, nurses, analysts, etc.

Audio/Video/CD-ROM, etc.
1. **DS Shein.**[Δ] *Mama, Mi Esposo Tiene Diabetes: La Comida Hispana Y Diabetes.* A Spanish language patient education video about diabetic diet and traditional New Mexican cuisine. Underwritten by the National Health Service Corps, American Diabetes Association, and the Albuquerque Family Health Center. Aired by <u>Public Access Channel 27</u>, Albuquerque, NM. Summer 1992.
   [Δ]*NOTE: Legally changed name from David Shein to David Bar-Shain in August 1993*

Newspaper
1. **Bar-Shain, DS.** *Health IT Trends: Immunization Decision Support in EHR Could Make Mental Calculations Unnecessary.* <u>AAP News</u>. Print. Vol 43, No.1. Page 1. (2022, January 1) <https://766c0720.flowpaper.com/AAPNews0122/#page=1>

Abstracts
International
1. **DS Bar-Shain**, M Stager, *A Runkle, J Leon, and D Kaelber. *Integrated Forecasting, Messaging & Decision Support to Improve Adolescent Immunization Rates.* <u>Advancing Adolescent Health Fall Forum</u>. Lisbon, Portugal. September 25, 2017. (Oral Abstract)
   NOTE: Selected by a peer-review process as one of 8 promising practices from around the world shown to increase adolescent immunization rates. Forum participants came from Brazil, Italy, France, Germany, Portugal, Spain, and the United Kingdom.

National
1. LM Shaffer, **DS Shein**[Δ], CA Brannaman, P Gambetti, KR Brunden, SG Younkin, and ML Cohen. *Processing of neuronally-generated βAPP by macrophages and microglia.* <u>Journal of Neuropathology & Experimental Neurology</u>, Vol. 52, May,1993. (Poster Presentation)
   [Δ]*NOTE: Legally changed name from David Shein to David Bar-Shain in August 1993*
2. *DC Kaelber, S Grove, C Dziedzina, R Cohn, **D Bar-Shain** and M Richard. *A Pediatric PDA (Personal Digital Assistant) Program for Residents.* <u>Pediatric Academic Societies</u>. Seattle WA. 2003. (Poster Presentation)
3. **DS Bar-Shain, *K Palcisco, D Kaelber, and PJ Greco. *Clinical Decision Support to Impact the Recognition of High Pediatric Blood Pressure Measurements.* <u>American Academy of Pediatrics National Conference and Exhibition</u>. New Orleans LA. 2012. (Poster Presentation, 1st place poster)
4. **DS Bar-Shain,** J Leon, P Stager, and DC Kaelber. *Improving Adolescent Immunization Rates through Electronic and Non-Electronic Direct Patient Communication.* Abstract 1514.184. <u>Pediatric Academic Societies Meeting</u>. Washington DC. 2013. (Poster Presentation)
5. **DS Bar-Shain, *K Palcisco, PJ Greco, and DC Kaelber. *Using Advanced Electronic Clinical Decision Support to Improve the Quality and Recognition of Abnormal Blood Pressure Values in Children*. Abstract 2370.4. <u>Pediatric Academic Societies Meeting</u>. Washington DC. 2013. (Oral Abstract)

6. **DS Bar-Shain**, D Kaelber, J Leon, *A Runkle, and P Stager. *Using Electronic Health Record Technologies to Improve Adolescent Vaccination*. Society for Adolescent Health and Medicine, Local Public Health Demonstration Project Summit Meeting. Cincinnati OH. 2013. (Oral Abstract)

7. MA Baker, DC Kaelber, Megan Mazza, **DS Bar-Shain**, B Zambarano, P Moro, R Platt, and M Klompas. *Automated Detection and Reporting of Vaccine Adverse Events: ESP-VAERS*. ID Week. San Francisco CA. 2013. (Oral Abstract)

8. MA Baker, M Mazza, R Platt, **DS Bar-Shain**, DC Kaelber, and M Klompas. *Advanced Clinical Decision Support for Vaccine Adverse Event Detection and Reporting*. American Medical Informatics Association Annual Symposium. Washington DC. 2013. (Oral Abstract)

9. M Stager, J Leon, **D Bar-Shain**, *A Runkle, and DC Kaelber. *Improving Adolescent Immunization Rates through Electronic and Non-Electronic Direct Patient Communication*. Society for Adolescent Health and Medicine Annual Meeting. Austin TX. 2014. (Poster Presentation)

10. SD Bolen, T Love, **D Bar-Shain**, PJ Greco, DE Einstadter, M Behmer, H Ways, A Caron, RD Cebul. *A positive deviance approach substantially improves blood pressure control in safety net populations*. Society for General Internal Medicine: Annual Meeting. Hollywood, FL. May 12, 2016. Journal of General Internal Medicine. May 2016 31 (S2):S860. (Poster Presentation)

11. SD Bolen, J Misak, A Caron, DE Einstadter, S Lewis, T Love, **D Bar-Shain**, PJ Greco, RD Cebul. *A successful strategy for implementing elements of a hypertension best practice in safety net clinics.* Society for General Internal Medicine: Annual Meeting. Hollywood, FL. May 12, 2016. Journal of General Internal Medicine. May 2016 31 (S2):S862. (Poster Presentation)

12. *RW Novince, **DS Bar-Shain**, DC Kaelber. *Clinical decision support substantially improved appropriate screening for vitamin D deficiency*. American Medical Informatics Association Annual Symposium. Chicago IL. November 14, 2016. (Poster Presentation)

13. *L Hojat, *A Bhardwaj, **DS Bar-Shain**, PJ Greco, N Abughali. *Using Preventive Health Alerts in the Electronic Health Record Improves Testing Rates for Infants Perinatally-Exposed to Hepatitis C.* Open Forum Infectious Diseases. 2017 Fall; 4(Suppl 1): S327. Published online 2017 Oct 4. PMCID: PMC5631816. (Poster Presentation)

14. SD Bolen, TE Love, S Lewis, R Liu, J Lever, W Ali-Matlock, **DS Bar-Shain**, R Cebul. *Reducing disparities in blood pressure control in an EHR-catalyzed regional health improvement collaborative using a positive deviance tiered intensity approach*. Society for General Internal Medicine: Annual Meeting. Denver, CO. April 11, 2018. (Poster Presentation)

15. M Osborn-Jenkins, M Gierlach, S Lewis, **DS Bar-Shain**, A Avery. *Evaluation of Using Clinical Decision Support to Increase Hepatitis C Screening in a Correctional Facility.* Centers for Disease Control and Prevention: 2018 National STD Prevention Conference. Washington, DC. August 27-30, 2018. Published in Sexually Transmitted Diseases, 2018; 45(9) Suppl 2: S53. (Poster Presentation)

16. M Powell, M Gierlach, SL Werner, **DS Bar-Shain**, A Avery. *1297. Examining the Successes and Challenges of Implementing HIV Testing Clinical Decision Support in the Emergency Department*. ID Week. Washington, DC. October 4, 2019. Published in Open Forum Infectious Diseases, Volume 6, Issue Supplement_2, October 2019, Pages S467-S468, https://doi.org/10.1093/ofid/ofz360.1160. (Poster Presentation)

17. *K. Davis, K. Gibson, **D. Bar-Shain**, J. Siff, D. Gunzler, D. Kaelber. *Using Clinical Decision Support to Decrease the Use of Teratogenic Antihypertensive Medications in Women of Childbearing Age.* American Medical Informatics Association: Clinical Informatics Conference. Atlanta, GA. April 30, 2019. (Poster Presentation)

18. SD Bolen, J Lever, S Smith, **DS Bar-Shain**, E Ordillas, W Ali-Matlock, J DaPrano, M Finley. *Addressing Social Determinants of Health: Connecting Disadvantaged Primary Care Patients to United Way Community Resource Navigation.* Society for General Internal Medicine: Annual Meeting. Washington DC. May 10, 2019. (Poster Presentation)

19. *K. Garrels, D. Kaelber, **D. Bar-Shain**. *A Proposed Scorecard to Prioritize Successful Health Information Exchange Projects.* American Informatics Association Clinical Informatics Conference Presentations. May 21, 2020. (Oral Abstract). *NOTE: because of the COVID-19 pandemic, this lecture was presented via streaming video.*

20. Tarabichi Y, Cheng A, **Bar-Shain D**, McCrate B, Lewis R, Emerman C, Siff J, *Wang C, Kaelber DC, Watts B, Hecker MT. *The impact of the implementation of a sepsis early warning system in the emergency department setting: A randomized controlled quality improvement initiative.* American Medical Informatics Association Clinical Informatics Conference. Virtual. May 18, 2021. (Oral abstract)

21. Bolen S, Lever J, Mundorf C, Jenkins A, Smith S, Finley M, Daprano J, Johnson E, Masotya M, Joshi S, Gunder A, Lohr ME, **Bar-Shain D**, Kaelber D, Khaled T, Sumerauer D. *Early impact of a bidirectional clinic to community electronic referral system on addressing health-related social needs and health*

outcomes. <u>Society for General Internal Medicine: Annual Meeting</u>. Aurora, CO. May 12, 2023. (Oral abstract)

Regional/Local:

1. SD Bolen, DE Einstadter, **D Bar-Shain,** PJ Greco, M Behmer, RD Cebul. *Implementation of a hypertension best practice substantially improves blood pressure control in a safety net primary care clinic.* <u>Society for General Internal Medicine: Midwest Regional Meeting</u>. Cleveland, OH. August 27, 2015. (Oral Abstract)
2. *K Brackney, *G Labbad, **DS Bar-Shain,** K Gibson. *Missing RHIG Administration in Postpartum Women: an unrecognized safety risk.* <u>The MetroHealth System: 2nd Annual Patient Safety Awareness Week Poster Competition.</u> Cleveland, OH. March 10, 2020. (Poster Presentation, 3rd Place Poster Award)