VANDERBILT CLINICAL INFORMATICS CENTER

VCLIC News and Happenings, Volume 10

Happy New Year, All, and welcome to our **tenth** VCLIC newsletter! This month we are laying out a good portion of our Spring semester activities and events for you, including our upcoming talk by **Sigall Bell, MD, and Liz Salmi, of OpenNotes** (January 27th, 2021 at 12:00 pm CST), our first **workshop-style activity** (the **Data Disparities Lab**, February 9th, 2021 from 1:00 pm to 3:00 pm CST), our **Techquity Design Challenge** (accepting applications through January 30th, 2021), an interview-style conversation between our own Dr. Dara Mize and **Judy Faulkner, CEO of Epic**, which will occur on February 17th, 2021 at 12:00 pm CST, and a **FHIR Application Building workshop**, helmed by **Tim Coffman and Simeon Hearring of HealthIT**, on March 10th, 2021 from 1:00-4:00 pm CST.

We are also excited to feature **Sara Horst, MD, MPH** and her work this month, as well as to provide a few more details on the **MS in Applied Clinical Informatics (MSACI) Program**, which is currently accepting applications. As always, we are reminding you of **upcoming conferences**, speaking engagements featuring VCLIC members (the **25x5 Symposium to Reduce Documentation Burden on US Clinicians**), and the many publications, presentations, and news stories involving our members. We will be adding these accomplishments to the News and Publications pages of our website as well.

Finally, we are asking that you respond to this email with **feedback for us**, if you have any (see below questions), and follow us on **Twitter** @VUMC_VCLIC.

If you have any questions or would like to engage with our team, please email Elise (elise.russo@vumc.org).

Upcoming Events and Initiatives

Please note that details of all our upcoming events can be found on the Events page of our Website.

VCLIC Design Challenge, kicking off in January 2021

VCLIC Design Challenge: Do you (or your colleagues) find yourselves thinking of creative solutions to problems or inefficiencies facing our technology-enabled healthcare system? VCLIC would love for you to participate in our upcoming Design Challenge!

This Challenge, kicking off in January 2021, invites teams of students, clinicians, faculty, and staff from different scientific disciplines and of various backgrounds to propose novel solutions to problems related to healthcare equity and technology. We welcome a range of informatics and technical approaches, and submissions from teams with and without technical experience are welcome. **Applications for teams are due January 30th, 2021**, and once in the program, teams will work with each other as well as with mentors from VCLIC, to develop either a low-or high-fidelity prototype of their solution to present on April 2nd, 2021 to a panel of judges. Of course there will also be prizes!

To indicate interest and/or submit your initial application, please go here: https://redcap.link/VCLICtechquitychallenge

For more information, please go to https://www.vumc.org/vclic/vclic-design-challenge or email elise.russo@vumc.org.

"Patient and Clinician Perspectives on Open Notes: How Note Transparency Can Forge Better Care and Stronger Relationships," January 27th at 12:00 pm Central

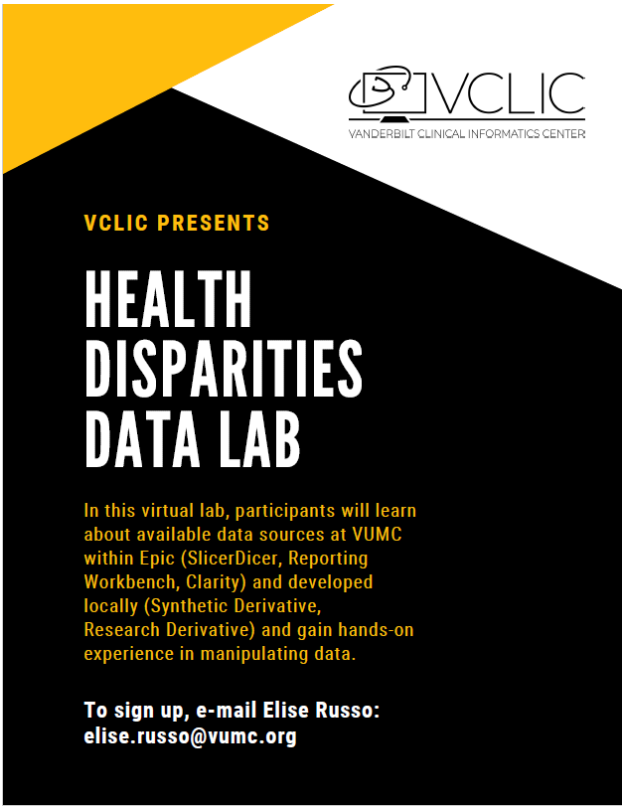
Sigall Bell, MD Director of Patient Safety & Discovery, OpenNotes, Associate Professor of Medicine, Harvard Medical School	**Liz Salmi** Senior Strategist of Research Dissemination, OpenNotes, Beth Israel Deaconess Medical Center

OpenNotes aims to strengthen patient-clinician relationships through more transparent communication. In this presentation **Liz Salmi and Sigall Bell, MD**, will share their experiences; first from the perspective of a patient who reads their notes and then from a physician researching the impact of open notes over the last decade.

Based at the Beth Israel Deaconess Medical Center in Boston, OpenNotes is not a product or software, but a non-profit academic research and advocacy group studying the effects of sharing visit notes with patients and families on patient engagement, safety, and quality of care.

Please join us on **January 27th at 12:00 pm** Central by **using this Zoom link**. **(DBMI Faculty please note that this is the link for the Wednesday seminars on your calendar as sent by Rischelle—this talk will be the DBMI seminar for Wednesday the 27th of January).**

Disparities Data Lab, February 9th from 1:00-3:00 pm Central



Allison McCoy, PhD and **Bryan Steitz, PhD** will offer a two-hour interactive, hands-on session for anyone interested in learning about available data sources at VUMC within Epic (e.g., SlicerDicer, Reporting Workbench, Clarity) and developed locally (e.g., Synthetic Derivative and Research Derivative).

Participants will receive de-identified data sets from these sources and will gain hands-on experience in manipulating the data sets in programs such as Microsoft Excel and Tableau to answer questions about health disparities, patient portals, and telemedicine.

To sign up, please email elise.russo@vumc.org or complete this REDCap form: https://redcap.link/VCLICdatalab

In Conversation with Judy Faulkner, CEO of Epic, February 17th at 12:00pm Central

Mark your calendars for this event- you won't want to miss it! We will be adding more details to our website soon. This talk will be the DBMI Seminar for Wednesday, February 17th.

FHIR App Building Workshop, March 10th from 1:00-4:00 pm Central

The FHIR App Building Workshop will be a wonderful opportunity to get hands-on experience with FHIR App development! VCLIC and HealthIT (**Tim Coffman and Simeon Hearring**) will cohost a 3-hour workshop for those wishing to learn how to conceptualize, build/develop, test, and put into production a FHIR application that meets all standards and interfaces with Epic. Participants will build an app, which will involve a user interface for summarization and visualization.

To sign up, please email elise.russo@vumc.org or complete this REDCap form:
https://redcap.link/FHIRworkshop

Master of Science Applied Clinical Informatics (MSACI) Program

Perfect for a diverse range of healthcare providers, Vanderbilt's Master of Science in Applied Clinical Informatics (MSACI) offers rigorous and engaging training that will equip you to apply informatics principles to the challenges facing your workplace.

In the MSACI program, you will

- Complete 36 credits of clinical informatics coursework in 21 months
- Gain 240 hours of practical experience working on interdisciplinary health IT teams
- Implement a capstone project to address an informatics challenge in your current workplace
- Network with world-renowned faculty from the largest biomedical informatics department in the world
- Continue working full-time as you earn your degree

So, whether you're a practicing physician looking to improve the IT experience in your organization or a public health official passionate about health systems data, the MSACI program could be just right for you!

Notably, the MSACI Program has a primarily digital format to accommodate distance learning for working health professionals across the country. Additionally, the Program places high value on the "A" in MSACI- you will be able to apply the theoretical concepts of clinical informatics from day one. Finally, your instructors will be national leaders in clinical informatics, often with joint appointments in health IT at VUMC. Just like you, they come from a range of health backgrounds, from anesthesiology to pharmacy, and they're actively engaged in boots-on-the-ground work in informatics in healthcare settings.

For more information, including the curriculum and application information, please see the MSACI website.

Important Application-related Dates

August 1 – Application Cycle Starts

February 15 – Early Application Deadline

April 30 – Final Application Deadline

Member Spotlight: Sara Horst MD, MPH, FACG

Dr. Sara Horst MD, MPH, FACG is an Associate Professor in the division of Gastroenterology, Hepatology, & Nutrition at Vanderbilt University Medical Center. She joined the faculty at Vanderbilt University Medical Center in 2011. She is involved in clinical care of complex IBD (inflammatory bowel disease) care, clinical research, and teaching and mentoring medical students and housestaff. Her research interests involve psychosocial outcomes in IBD, particularly how depressive symptoms are related to and affect outcomes in IBD. She is also interested in medication adherence and telehealth in IBD. She has extensively published in peer reviewed journals. She is also involved in clinical care/electronic medical record improvement as an EPIC Physician Builder and is on the National EPIC GI Steering Board.

Currently she has been working with **Allison McCoy, PhD,** and **Justin Bachmann, MD, MPH,** evaluating patient reported outcomes (PROs) in IBD. In the IBD clinic, all patients input PROs into the EMR at every visit. She is interested in how PROs are affected by patient demographics and disease specifics and how PROs change over time. She would like to continue to study and collaborate on evaluating PROs in clinical settings and outcomes associated with them.

She also is interested in telehealth and how this can be used in chronic care. She and Dr. McCoy have evaluated the success of telehealth in the IBD and Internal Medicine populations. She has published an abstract and is working on several manuscripts currently.

She is also interested in implementation of a polyp surveillance EMR strategy and how this could improve surveillance colonoscopy results and would welcome collaboration in this regard.

Upcoming Conferences and Conference Deadlines

- SIAM Annual Meeting: Contributed Lecture, Poster, and Minisymposium Presentation Abstracts due **February 3, 2021**
- ACC: Late-Breaking Clinical Trials due by **January 26, 2021** 1pm ET
- ICML**:** Abstracts due **January 28, 2021**; Papers due **February 4, 2021**
- ASCO: Abstracts due by **February 17, 2021**
- Southern Region SGIM: Conference Dates are **February 24-25, 2021** (Virtual)

More information on upcoming conferences and conference deadlines can be found on our Confluence page, here.

VCLIC Twitter

VCLIC is working to up our Twitter game. Please follow @VUMC_VCLIC, and we will make sure to follow you back. If you have any exciting news, including new publications, interesting projects, or professional achievements, please email Elise Russo -- we'll be happy to tweet for you.

Publications, Presentations, Interviews, and Awards

In The News

The *VUMC Reporter* showcased several VCLIC Members:

- 01/07/21: Building a cohort, the easy way. The Reporter highlights a paper that **Joshua Smith, PhD**, **Dario Giuse, PhD,** and others, co-authored. This paper was also presented during the 2020 AMIA Annual Symposium.
- 12/28/20: First-person essay: Doing my part to end the pandemic. Written by **Kevin Johnson, MD, MS**.
- 12/17/20: Year in Review 2020: Leadership appointments bolster VUMC's missions. **Josh Peterson, MD, MPH** was appointed as director of the Center for Precision Medicine. Congratulations!
- 12/17/20: Heart failure study seeks to reduce hospitalizations. **Michael Ward, MD, PhD,** co-led a national study finding that providing self-care interventions "empower[s] [emergency department] patients to be their own coaches" and reduces unnecessary hospitalizations.
- 12/17/20: COVID-associated delays for elective services studied. This article showcases the work of several VCLIC members, including **Jeremy Warner, MD, MS, Travis Osterman, DO, MS, Josh Peterson, MD, MPH,** and **Kevin Johnson, MD, MS**. This study analyzed electronic health records to find several associations between delays and adverse outcomes, such as longer hospital stays.
- 12/16/20: Health equity's role in pandemic response crucial. This paper, co-authored by **Sunil Kripalani, MD, MS**, outlines VUMC's efforts to better understand race, ethnicity, language, and ZIP code data during the COVID-19 pandemic.
- 12/14/20: VUMC Office of Health Equity bestows Innovation Awards. A project co-led by **Justin Bachmann, MD, MPH**, uses Patient-Reported Outcome Measures (PROMs) to better understand health equity.

Presentations

Several VCLIC Members will be presenting at the 25 By 5: Symposium to Reduce Documentation Burden on U.S. Clinicians by 75% by 2025 , which began Friday, January 15th. The overall goal of the Symposium is to establish strategies and approaches to reduce clinician documentation burden on US clinicians to 25% by 2025. VUMC is one of the sponsors, along with Columbia University, AMIA, and the NLM, and has extensive representation! **Trent Rosenbloom, MD, MPH** is Co-Chair of the event, and **Kevin Johnson, MD, MS** is part of the Steering Committee.

- Session One (already took place) "Introduction and Current Challenges Related to What We Document": Friday, Jan 15th
    - **Kevin Johnson, MD, MS,** is a Session Co-Leader
- Session Two "Current Challenges Related to How We Document": Friday, Jan 22nd
    - **Patty Sengstack, DNP, RN-BC** is a Session Co-Leader
    - **Trent Rosenbloom, MD, MPH,** will co-present the Symposium Re-Introduction and Overview
    - **Kim Unertl, PhD,** is a Keynote Panelist for "Data Entry Challenges," and will be discussing workflow in her talk entitled "Oh the interruptions."
    - **Yaa Kumah-Crystal, MD, MPH, MS,** is a Keynote Panelist for "Alternative Data Entry," and will be discussing Voice recognition in her talk entitled "Computer- are you there?"
- Session Three "Exemplars and Key Successes": Friday, Jan 29th
    - **Adam Wright, PhD,** will be presenting on Clickbusters during the Exemplars panel
- Session Four "Emerging and Future Innovations as Solutions": Friday, February 5th
- Session Five "Reactor and Prioritization Session for Actions": Friday, Feb 12th
    - **Trent Rosenbloom, MD, MPH,** is the Session Leader
- Session 6 "Plenary Panel on Insights for Action": Friday, February 19th

Outside of the 25x5**, Yaa Kumah-Crystal, MD, MS, MPH,** will give a presentation on "The Explosion of Telehealth and Coming Innovations from Voice and Natural Language Processing" on Friday, Feb 19th. This presentation will be part of an 8-part series as part of The Disruption Lab's New "Healthcare's New Delivery Models Post COVID" Weekly Sessions, which begin Jan 22nd.

Accepted Publications

January 2021

Belenkaya R, Gurley MJ, Golozar A, Dymshyts D, Miller RT, Williams AE, Ratwani S, Siapos A, Korsik V, **Warner J**, Campbell WS, Rivera D, Banokina T, Modina E, Bethusamy S, Stewart HM, Patel M, Chen R, Falconer T, Park RW, You SC, Jeon H, Shin SJ, Reich C. Extending the OMOP Common Data Model and Standardized Vocabularies to Support Observational Cancer Research. *JCO Clinical Cancer Informatics.* 2021;(5): 12-20.

Cronin RM, Halvorson AE, Springer C, Feng X, Sulieman L, Loperena-Cortes R, Mayo K, Carroll RJ, Chen Q, Ahmedani BK, Karnes J, Korf B, O'Donnell CJ, Qian J, Ramirez AH, *All of Us* Research Program Demonstration Projects Subcommittee. Comparison of family health history in surveys vs electronic health record data mapped to the observational medical outcomes partnership data

model in the All of Us Research Program. *Journal of the American Medical Informatics Association*. 2021.

Franklin AD, Sobey JH, Brenn BR, Johnson SR, Schoenecker JG, Gartley AC, Shotwell MS, Gay JC, **Wanderer JP**. Financial and Clinical Ramifications of Introducing a Novel Pediatric Enhanced Recovery After Surgery Pathway for Pediatric Complex Hip Reconstructive Surgery. *Anesth Analg*. 2021; 132(1): 182-193.

Petersen C, Smith J, Freimuth RR, Goodman KW, **Jackson GP**, Kannry J, Liu H, Madhavan S, Madhavan S, Sittig DF, **Wright A**. Recommendations for the safe, effective use of adaptive CDS in the US healthcare system: an AMIA position paper. *Journal of the American Medical Informatics Association.* 2021.

Rubinstein SM, Sethi T, Venepalli NK, Gyawali B, Schwartz C, Rivera DR, Yang PC, **Warner JL**. Chemotherapy Knowledge Base Management in the Era of Precision Oncology. *JCO Clinical Cancer Informatics.* 2021(5):30-35.

Wanderer JP, Nathan N. Reduce, Reuse… Reprocess? Strategies for Extended Use of N95 Masks. *Anesth Analg*. 2021; 132(1): 1.

Wang ME, Neuman MI, Nigrovic LE, Pruitt CM, Desai S, DePorre AG, Sartori LF, Marble RD, Woll C, Leazer RC, Balamuth F, Rooholamini SN, Aronson PL. Characteristics of Afebrile Infants ≤60 Days of Age With Invasive Bacterial Infections. *Hospital Pediatrics.* 2021; 11(1):100. **Derek J Williams, MD, MPH**, acknowledged as a collaborator.

Wang Z, Wang P, **Louis PC, Wheless LE**, Huo Y. WearMask: Fast In-browser Face Mask Detection with Serverless Edge Computing for COVID-19 [preprint]. *arXiv.* 2021.

December 2020

Boone JB, **Wheless L**, Camai A, Tanner SB, Barnado A. Low prevalence of bone mineral density testing in patients with systemic lupus erythematosus and glucocorticoid exposure. *Lupus.* 2020.

Carayon P, Kleinschmidt P, Hose B-Z, **Salwei M**. Human Factors and Ergonomics in Health Care and Patient Safety from the Perspective of Medical Residents. In: Donaldson L, Ricciardi W, Sheridan S, Tartaglia R, eds. *Textbook of Patient Safety and Clinical Risk Management*. Cham: Springer International Publishing, 2021:81-89.

Hudesman D, Sauk J, Zhuo J, Harrison R, Kerti S, Emeanuru K, Ahmad H, Sreih A, Nguyen J, Cross R, **Horst S**. Abstract P039: Factors Associated with Impaired Patient-Reported Outcomes and Work Productivity Among Patients with Crohn's Disease in Remission. *American Journal of Gastroenterology*. 2020; 115:S10.

Friebe MP, LeGrand JR, Shepherd BE, Breeden EA, **Nelson SD**. Reducing Inappropriate Outpatient Medication Prescribing in Older Adults across Electronic Health Record Systems. *Appl Clin Inform.* 2020;11(05):865-72.

Jhawar SR, Palmer JD, Wang S-J, Bitterman D, Klamer B, Huynh-Le M, Chung C, Ohri N, Stover DG, Lustberg MB, Mishra S, **Warner J**, Jabbour S, Goyal S. The COVID-19 & Cancer Consortium (CCC19) and Opportunities for Radiation Oncology. *Advances in Radiation Oncology*. 2020.

Johnson DP, McLean HS. Reliability, Resilience, and Developing a Problem-Solving Culture. In: Shah RK, Godambe SA, eds. *Patient Safety and Quality Improvement in Healthcare: A Case-Based Approach.* Cham: Springer International Publishing, 2021:55-68.

Johnson KB, Neuss MJ, Detmer DE. Electronic health records and clinician burnout: A story of three eras. *Journal of the American Medical Informatics Association.* 2020.

Shah K, Triana A, Gusdorf R, **McCoy A**, Pabla B, Scoville E, Dalal R, Beaulieu D, Schwartz D, Griffith M, **Horst S**. Abstract P033: Demographic Factors Associated with Successful Telehealth Visits in Inflammatory Bowel Disease Patients. *American Journal of Gastroenterology*. 2020; 115:S9.

Lewis JA, Spalluto LB, Henschke CI, Yankelevitz DF, Aguayo SM, Morales P, Avila R, Audet CM, Prusaczyk B, Lindsell CJ, Callaway-Lane C, Dittus RS, Vogus TJ, Massion PP, Limper HM, **Kripalani S**, Moghanaki D, Roumie CL. Protocol to evaluate an enterprise-wide initiative to increase access to lung cancer screening in the Veterans Health Administration. *Clinical Imaging.* 2021;73:151-61.

Moore-Lotridge SN, Ihejirika R, Gibson BHY, Posey SL, Mignemi NA, Cole HA, Hawley GD, Uppuganti S, Nyman JS, Schoenecker JG. Severe injury-induced osteoporosis and skeletal muscle mineralization: Are these related complications? *Bone Reports.* 2021;14:100743.

Ramsey LB, Ong HH, Schildcrout JS, Shi Y, Tang LA, Hicks JK, El Rouby N, Cavallari LH, Tuteja S, Aquilante CL, Beitelshees AL, Lemkin DL, Blake KV, Williams H, Cimino JJ, Davis BH, Limdi NA, Empey PE, Horvat CM, Kao DP, Lipori GP, Rosenman MB, Skaar TC, Teal E, Winterstein AG, Owusu Obeng A, Salyakina D, Gupta A, Gruber J, McCafferty-Fernandez J, Bishop JR, Rivers Z, Benner A, Tamraz B, Long-Boyle J, **Peterson JF**, Van Driest SL; for the IGNITE Pharmacogenetics Working Group. Prescribing Prevalence of Medications With Potential Genotype-Guided Dosing in Pediatric Patients. *JAMA Network Open.* 2020; 3(12): e2029411.

Horst S, Hudesman D, Zhuo J, Harrison R, Kerti S, Emeanuru K, Ahmad H, Sreih A, Nguyen J, Cross R, Sauk J. Abstract P038: Factors Associated with Impaired Patient-Reported Outcomes and Work Productivity Among Patients with Ulcerative Colitis in Remission. *American Journal of Gastroenterology*. 2020; 115:S10.

Smith J. Setting the agenda: an informatics-led policy framework for adaptive CDS. *Journal of the American Medical Informatics Association*. 2020;27(12):1831-33. (**Adam Wright, PhD**, and **Gretchen Purcell Jackson, MD, PhD**, acknowledged for their contributions).

Wilkins CH, Friedman EC, Churchwell AL, Slayton JM, Jones P, Pulley JM, **Kripalani S**. A Systems Approach to Addressing Covid-19 Health Inequities. *NEJM Catalyst*. 2020;2(1).

Williams D, Creech CB, Walter EB, Martin J, Gerber J, Newland J, Howard L, Hofto ME, Staat MA, Oler R, Conrad T, Tuyishimire B, Pettigrew MM, Fowler VG, Jr., Chambers H, Zaoutis T, Evans SR, Huskins WC. Abstract 175: Randomized Double-blind Controlled Trial of Short vs. Standard Course Outpatient Therapy of Community Acquired Pneumonia in Children (SCOUT-CAP). *Open Forum Infectious Diseases*. 2020;7(Supplement_1):S216.

Zheng NS, **Warner JL**, **Osterman TJ**, Wells QS, Shu X-O, Deppen SA, Karp SJ, Dwyer S, Feng Q, Cox NJ, **Peterson JF**, Stein CM, Roden DM, **Johnson KB**, Wei W-Q. A retrospective approach to evaluating potential adverse outcomes associated with delay of procedures for cardiovascular and cancer-related diagnoses in the context of COVID-19. *Journal of Biomedical Informatics.* 2021; 113:103657.

A Question for You, Our Readers!

We want to make sure we are helping you meet your Clinical Informatics goals at VUMC. To that end, we would like to know:

- What educational programs would you like to see in the future?
- What content would you like to see in future Newsletters?
- Do you have any other suggestions for how VCLIC can help you accomplish your clinical informatics goals?

We look forward to reading each of your suggestions. You can respond to this email or send a separate one to elise.russo@vumc.org.

Reminder to Send Updates for Recognition

If you (or another VCLIC Member) publishes a paper; has an abstract accepted at a conference; are interviewed for or written up in a news article; receive any awards, accolades, or honors; or completed/are currently undertaking any projects you would like to highlight, please email me with or forward this information:

- Names of VCLIC members/VUMC staff who participated in or worked on the project, paper, or abstract (or who received the award/honor)
- The title of the Project, Paper, Abstract, Article, or Award
- The journal, conference, or news publication (this can be podcasts, radio, or more "traditional," news mediums)

Nothing is too big or too small to celebrate, and this information will be featured on the News section of our website as well. As time goes on, I am hoping to also improve our Twitter presence, so feel free to add, tag, or tweet us at @VUMC_VCLIC too!

Thank you, and see you next month!