



VCLIC News and Happenings, Volume 16

Hello and welcome to our August newsletter! We have a lot of exciting announcements to make this month! First off, we would like to introduce you to the **Clinical Informatics Core**, helmed by **Allison McCoy, PhD**. We have also chosen our 2021-2022 theme for the academic year, “**Innovative Care Delivery Models for Mental Health**,” and are thrilled that our keynote seminar will be presented by none other than **Cheryl Cobb, MD**, of VUMC Clinical Psychiatry and Behavioral Health, on September 22nd, 2021. In addition to our September seminar, we are announcing our first two workshops of the year: **Intro to eStar**, which will be led by **Aileen Wright, MD, MS**, and **Allison McCoy, PhD** on September 14th, 2021, and **Data Resources and Analytics in Mental Health: Basics**, led by **Allison McCoy, PhD**, and **Bryan Steitz, PhD**. More information for all of these events (and the Core) can be found below and on our [website](#).

VCLIC also has 3 members who have been awarded funding as part of the **Catalyzing Informatics Innovation (CI2) Program**: **Bryan Steitz, PhD**, **Wael Alrifai, MD, MS**, and **Justin Bachmann, MD, MPH**. This month we are featuring another new VCLIC member and DBMI postdoctoral research fellow, **Siru Liu, PhD**, who has recently published several papers and won a fabulous award from AMIA!

We would like to remind our members that **Epic has extended its virtual training** opportunities and also that **Epic’s UGM** is coming up next week, with several VCLIC members presenting! Finally, we are recapping the **VCLIC presence at HIMSS**, reminding everyone of **upcoming conferences and conference deadlines** (as well as poster templates available for use), and covering several **awards, news article mentions, presentations, and publications** by and/or featuring our members.

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

Epic UGM 2021 (August 23rd-26th, 2021)

UGM is next week! We know many of our members are going to attend and present—if you will be traveling to Wisconsin, VCLIC would like to **invite you to meet at 5:30 pm at the campfire on Sunday, August 22nd**. Look for VCLIC members Adam Wright and Allison McCoy!

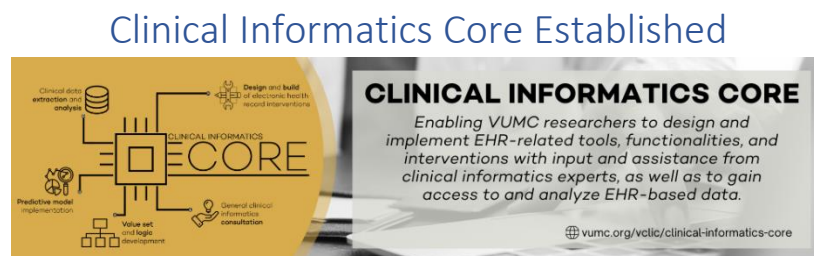
Thank you and congratulations to all our VCLIC presenters!:

Alrifai, W. “Fetal Care: Delivering Baby’s Plan at Delivery.” UGM 2021, 25 Aug. 2021, 4:30 PM – 5:10 PM CT, Verona.

Kumah-Crystal, Y. “Using ‘Hey, Epic’ for Patient Management.” UGM 2021, 23 Aug. 2021, 8:50 AM – 9:20 AM CT, Verona.

Osterman, T. “Supporting Each Other with Specialty Operations Community Groups.” UGM 2021, 25 Aug. 2021, 2:30 PM – 3:10 PM CT, Verona.

Wright, A, A. McCoy, N. Patel. “Collaborating to Improve CDS: The Clickbusters Initiative.” UGM 2021, 23 Aug. 2021, 10:30 AM – 11:00 AM CT, Verona.



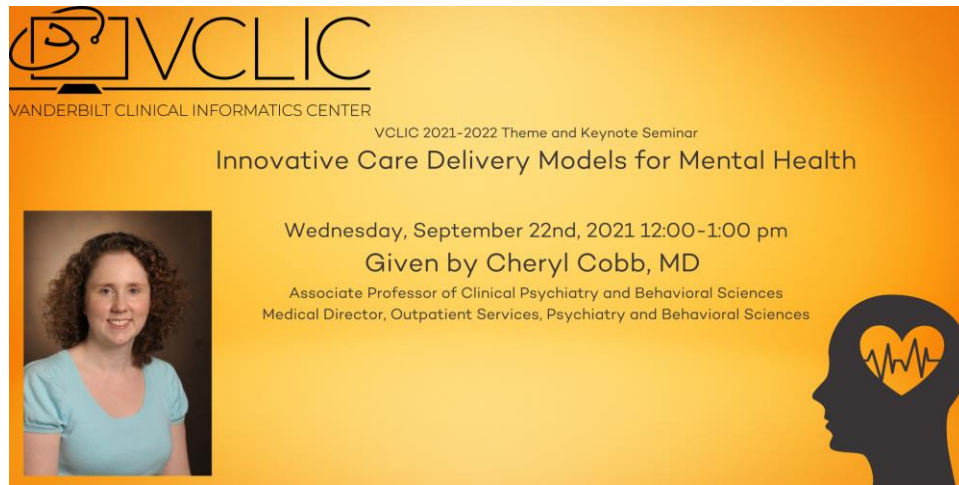
VCLIC is excited to launch the [Clinical Informatics Core](#)! This is a VUMC sponsored core under the direction of **Allison B. McCoy, PhD**. Access to electronic health record (EHR) systems and data is essential for researchers across VUMC, but until now, there has been no widely known, standardized process for obtaining data from VUMC’s eStar system.

The mission of the Clinical Informatics Core is to enable VUMC researchers to design and implement EHR-related tools, functionalities, and interventions with input and assistance from clinical informatics experts, as well as to gain access to and analyze EHR-based data. Services that the Core offers include 1) clinical data extraction and analysis, 2) design and build of EHR interventions, including clinical decision support tools, 3) predictive model implementation, 4) value set and logic development, and 5) general clinical informatics consultation. Core staff are certified in all aspects of VUMC’s Epic EHR, including data extraction, building clinical decision support tools, integrating external applications, and extending the EHR through custom programming; they have extensive experience carrying out this work in support of both research and operational needs. The Core is supported by a project manager (Elise Russo) and cloud-based infrastructure for tracking projects and ensuring prompt and accurate delivery of requests. Work completed by the Core is billed through iLab at a rate of \$130/hour. Payment can be made from federal grants, institutional funds, or VICTR vouchers.

If you are interested in engaging with us or obtaining a quote for one of these services, please fill out our REDCap form: https://redcap.link/vclit_core

If you have questions or would like to meet with Core staff to discuss your needs, please contact [Allison McCoy](#) and/or [Elise Russo](#).

VCLIC Theme and Keynote for Academic Year 2021-2022

The poster features a yellow background. At the top left is the VCLIC logo, which includes a stylized 'V' and 'C' intertwined. Below the logo, the text reads 'VCLIC' in large letters, followed by 'VANDERBILT CLINICAL INFORMATICS CENTER' in smaller text. To the right of this, it says 'VCLIC 2021-2022 Theme and Keynote Seminar'. The main title is 'Innovative Care Delivery Models for Mental Health'. Below the title, the date and time are listed: 'Wednesday, September 22nd, 2021 12:00-1:00 pm'. The speaker is identified as 'Given by Cheryl Cobb, MD', with her credentials: 'Associate Professor of Clinical Psychiatry and Behavioral Sciences' and 'Medical Director, Outpatient Services, Psychiatry and Behavioral Sciences'. On the left side of the poster is a portrait of Cheryl Cobb, a woman with curly hair wearing a light blue top. On the right side is a silhouette of a human head in profile, facing left, with a heart shape inside the head containing a red ECG line.

For our second year, VCLIC is focusing our attention on **Innovative Care Delivery Models for Mental Health**. Mental illnesses are some of the most common health conditions in the United States, and “more than 50% of people will be diagnosed with a mental illness or disorder at some point in their lifetime” ([cdc.gov](https://www.cdc.gov)). We hope to spend the year learning about how informatics can assist or support care delivery as it pertains to mental health services.

For our kick-off, we are honored and excited to welcome VUMC’s own **Cheryl Cobb, MD**, who is the Associate Professor of Clinical Psychiatry and Behavioral Sciences as well as the Medical Director of Outpatient Services for Psychiatry and Behavioral Sciences. Dr. Cobb will give an overview of mental health, including definitions, prevalence, burden on the system, etc., and will discuss the ways that technology impacts (including benefits and challenges) the provision of mental health care as well as some potential ideas for a way forward using technology and innovative care delivery methods to enhance this area.

Please join us for this talk, which will take place during the DBMI Seminar time (12:00-1:00 pm on Wednesday, September 22nd, 2021) via Zoom (details to be updated on the [events](#) page of our website soon).

VCLIC Announces First Few Workshops for Fall 2021 Semester

Intro to eStar: Workshop on September 14th, 2021 from 9:00 am-12:00 pm



VCLIC PRESENTS

Intro to eStar

In this workshop, participants will learn about VUMC's Epic electronic health record (eStar) through interactive demonstrations. The workshop will include an introduction to clinical workflows in eStar and an overview of clinical decision support build capabilities.

SEPTEMBER 14, 2021
9AM-12PM
IN-PERSON/VIRTUAL

To sign up, visit
vumc.org/vcllic/events


VANDERBILT CLINICAL INFORMATICS CENTER

VCLIC is back with our first workshop of this academic year! Please join us on Tuesday, September 14th, 2021 to learn about Epic! This workshop will be co-led by **Allison McCoy, PhD** and **Aileen Wright, MD, MS**. The first half of the course will focus on clinical workflows (led by Dr. Wright), and the second half will focus on CDS and build capabilities in Epic (and will be led by Dr. McCoy). Participants are welcome to join for either half of the session or the entire session, and we are determining the possibility for in-person attendance (you will be able to indicate all of these selections on the sign up form, linked below). We hope you can join us!

If you have questions, please email elise.russo@vumc.org or complete this REDCap form to sign up: <https://redcap.link/introtoestar>

Data Resources and Analytics in Mental Health: Basics Workshop on October 5th, 2021 from 9:00 am to 12:00 pm

VCLIC PRESENTS

Data Resources and Analytics in Mental Health: Basics

**OCTOBER 5, 2021
9AM-12PM
IN-PERSON/VIRTUAL**

VCLIC
VANDERBILT CLINICAL INFORMATICS CENTER

In this workshop, participants will learn about available data sources at VUMC within Epic (SlicerDicer, Reporting Workbench, Clarity) and developed locally (Synthetic Derivative, Research Derivative) and gain hands-on experience in manipulating data.

To sign up, visit vumc.org/vcllic/events

Please join **Allison McCoy, PhD**, and **Bryan Steitz, PhD** for our October workshop. In this workshop, participants will learn about available data sources at VUMC within Epic (SlicerDicer, Reporting Workbench, Clarity) and developed locally (Synthetic Derivative, Research Derivative) and gain hands-on experience in manipulating data. This workshop will cover similar concepts to the Disparities Data Lab workshop from February 2021 but will use mental health data and examples.

If you have questions, please email elise.russo@vumc.org or complete this REDCap form to sign up: <https://redcap.link/MentalHealthDataBasics>

Catalyzing Informatics Innovation (CI2) Program has 3 VCLIC Awardees
3 VCLIC members were recently funded as awardees of the [Catalyzing Informatics Innovation Program](#), run by DBMI Faculty member, Daniel Fabbri, PhD.

“The DBMI Catalyzing Informatics Innovation (CI2) Program supports the development of creative, feasible informatics-based ideas that have the potential to improve health, healthcare, or discovery. CI2 Program awardees receive not only modest funding to pursue their proposed project, but also join a cohort of CI2 Scholars who work closely with faculty and VUMC leadership. Cohorts learn about using real-world data and evidence to advance innovation, evaluate methods and impact change. CI2 awardees work closely with their mentor and the CI2 Advisors to ensure that their project is moving forward and leading to publications and extramural funding, as appropriate.”

Congratulations to **Bryan Steitz, PhD; Wael Alrifai, MD, MS; and Justin Bachmann, MD, MPH** on their acceptance into this program!

Bryan's Project is: **A Real-Time Dashboard to Visualize Time-Based Organizational Stress**

Wael's Project is: **The Development and Validation of a Multidimensional Model to Measure Provider Workload in the Neonatal Intensive Care Unit** (also note that this is Wael's second year participating in the program)!

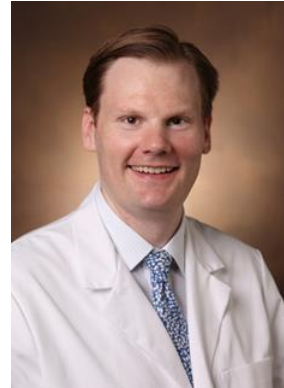
Justin's Project is: **Decreasing Heart Failure Readmissions with Patient-Reported Outcome Measures**



Bryan Steitz, PhD



Wael Alrifai, MD, MS



Justin Bachmann, MD, MPH

Virtual Epic Training Extended

Due to recent developments with the COVID-19 pandemic and updated guidelines from the CDC, all classes in Epic's training catalog will be available virtually until further notice.

Since in-person training provides the best possible learning experience, Epic will continue to offer in-person classes in a way that is safe for all attendees. Effective October 4th, trainees must be vaccinated in order to attend in-person classes. They encourage organizations to send at least some of their project team members to in-person training when possible.

Member Spotlight: Siru Liu, PhD



Siru Liu, PhD, is a postdoctoral research fellow in the Department of Biomedical Informatics at Vanderbilt University Medical Center. Her research interests include optimizing electronic health record features and functions, with an emphasis on CDS; leveraging machine learning and natural language processing techniques to improve healthcare quality; and analyzing public perceptions using social and behavioral science. She holds a PhD in Biomedical Informatics from University of Utah School of Medicine. Her PhD work focused on leveraging social psychology theory and machine learning to optimize CDS.

Currently, she works with Dr. Adam Wright to develop machine learning models to detect adverse events in elderly patients. She is excited to work with VCLIC members to develop user-friendly, intelligent CDS tools to improve patient safety and provide an equitable and efficient healthcare system.

Siru has had several recent publications, including a JAMIA paper with new VCLIC member and DBMI faculty, Tom Reese, PharmD, PhD: [A theory-based meta-regression of factors influencing clinical decision support adoption and implementation.](#)

She was also just selected into the Women in AMIA (WIA) Leadership Program, a seven-month leadership development program for women researchers from across the health informatics ecosystem.

HIMSS Recap

As mentioned in our last newsletter, we had 3 VCLIC members present at HIMSS, between August 9th and August 11th:

Kumah-Crystal, Y. "[CMIO X.0: Introducing the Next Generation of Health IT Leaders; How They Face Their Opportunities and Challenges.](#)" HIMSS21, 9 Aug. 2021 at 8:45 AM – 9:45 AM PST, Las Vegas.

Kumah-Crystal, Y. "Re-envisioning the EHR With a Virtual Assistant." HIMSS21, 9 Aug. 2021 at 1:15 PM – 2:15 PM PST, Las Vegas.

Beyond her presentations, **Yaa Kumah-Crystal, MD, MS, MPH**, was interviewed by HealthTech before HIMSS: "[HIMSS21: How NLP Could Be a Game Changer for EHR Workflows](#)"

Wright, A. "[Getting to a Great Problem List, and How That List Can Help Prevent Burnout.](#)" HIMSS21, 9 Aug. 2021 at 2:30 PM – 3:30 PM PST, Las Vegas.

Weinberg, S. "[Immunization Program Aims to Resolve Interoperability.](#)" HIMSS21, 11 Aug. 2021 at 1:00 PM – 2:00 PM PST, Las Vegas.



Yaa Kumah-Crystal, MD, MS,
MPH



Adam Wright, PhD



Stuart Weinberg, MD

Upcoming Conferences

- [Association for Computing Machinery Conference on Bioinformatics, Computational Biology, and Health Informatics](#): August 1-4th, 2021, Virtual
- [Machine Learning for Healthcare](#): August 6-7th, 2021, Virtual
- [Healthcare Information and Management Systems Society \(HIMSS\)](#): August 9-13th, 2021, Las Vegas, NV (hybrid)
- [Epic UGM](#): August 23-26th, 2021, Verona, WI
- [International Medical Informatics Association \(IMIA\) MedInfo](#): October 2-4th, 2021, Virtual
- [Anesthesiology Annual Meeting \(ASA\)](#): October 8-12th, San Diego, CA
- [American Academy of Pediatrics \(AAP\) National Conference & Exhibition](#): October 8-12th, Philadelphia, PA (Hybrid)
- [Symposium on Artificial Intelligence for Learning Health Systems \(SAIL\)](#): October 18-20th, 2021, Hamilton, BMU

Details on upcoming conferences and conference deadlines can be found on our Confluence page, [here](#).

Link to VCLIC poster templates

Attending an upcoming conference and need to use a poster template to present your work? VCLIC has several options, which can be found on our Confluence page, [here](#).

Publications, Presentations, Interviews, and Awards

Woman to Watch



Gretchen Jackson, MD, PhD has been named one of the Nashville Medical News 2021 [Women to Watch](#). Congratulations, Dr. Jackson! Reading your [career story](#) is certainly inspiring!

Additional Awards, Honors, Presentations, and News Mentions

Siru Liu, PhD presented “Leveraging Transfer Learning to Analyze Behavioral Intentions Toward COVID-19 Vaccines” at the 9th Annual Oak Ridge Postdoctoral Association (ORPA) Research Symposium.

Siru Liu, PhD was selected into the Women in AMIA (WIA) Leadership Program, a seven-month leadership development program for women researchers from across the health informatics ecosystem.

Stuart Weinberg, MD, was quoted in a slideshow on the HIMSS Website: "[HIMSS Immunization Integration Program](#)."

Sunil Kripalani, MD, was pictured and quoted in an article for the VUMC Reporter: "[Collaborative helping Midstate nursing homes control COVID-19.](#)"

As mentioned above, **Yaa Kumah-Crystal, MD, MS, MPH**, was interviewed by HealthTech before HIMSS last week: "[HIMSS21: How NLP Could Be a Game Changer for EHR Workflows](#)"

Dr. Kumah-Crystal's work was also discussed in an article: [Pushing back on the digital filing cabinet toward EHR usability](#), from MobilHealthNews, regarding her HIMSS Presentation.

Lyndsay Nelson, PhD was named the new Director of Scholarly Series for the Center for Clinical Quality and Implementation Research!

Accepted Abstracts

S. Barron Frazier, MD; Glory Beveridge, MD; Michele Walsh, MD; Jaime Kaye Otilio, MD; Emily Fain, MD; **Barron Patterson, MD**. Improving Critical Care Documentation Accuracy in a Pediatric Emergency Department . Accepted for Presentation at AAPNCE.

Claci Walls, MD; **David P. Johnson, MD**; **S. Barron Frazier, MD**. Optimizing Post-Intubation Sedation in the Pediatric Emergency Department. Accepted for Presentation at AAPNCE.

Marni Krehnbrink, Victoria Lawson, Amy Clark, **David Johnson**, Anna Morad. Increasing prescription rates for supplemental vitamin D for young infants in a primary care clinic and across a health system. Tennessee Chapter of the American Academy of Pediatrics annual poster session, August 3, 2021.

- Awarded Best Research/QI poster at the conference

Stuart Weinberg, Jacqueline Logan, Chandler Faulman, Karen Burnett. Do You Know Where Your ACK Messages Are? Accessing and Correcting Fatal Errors from Vaccine Submissions to a State Immunization Registry. Accepted for Presentation at AAP.

Publications

July

Bejan, C. A., Cahill, K. N., Staso, P. J., Choi, L., **Peterson, J. F.**, & Phillips, E. J. (2021). [DrugWAS: Drug-wide association studies for COVID-19 drug repurposing](#). *Clinical Pharmacology & Therapeutics*.

Burton WN, Schultz AB, **Shepherd ME**, McClusky M, Hines D. (2021). [Results of a Virtual Migraine Education Program in an Employed Population](#). *Journal of Occupational and Environmental Medicine*. Online ahead of print.

Hayden, E. M., Davis, C., Clark, S., Joshi, A. U., Krupinski, E. A., Naik, N., **Ward, M. J.**, Zachrisson, K. S., Olsen, E., Chang, B.P., Burner, E., Yadav, K., Greenwald, P. W., Chandra, S. (2021). [Telehealth in emergency medicine: A consensus conference to map the intersection of telehealth and emergency medicine](#). *Academic Emergency Medicine*.

Kehl, K. L., Riely, G. J., Lepisto, E. M., Lavery, J. A., **Warner, J. L.**, LeNoue-Newton, M. L., Sweeney, S. M., Rudolph, J. E., Brown, S., Yu, C., Bedard, P.L., Schrag, D., Panageas, K. S. (2021). [Correlation Between Surrogate End Points and Overall Survival in a Multi-institutional Clinicogenomic Cohort of Patients With Non–Small Cell Lung or Colorectal Cancer](#). *JAMA Network Open*, 4(7), e2117547-e2117547.

Li, A., Kuderer, N. M., Hsu, C.-Y., Shyr, Y., **Warner, J. L.**, Shah, D. P., ... Rosnovsky, R. P. (2021). [The CoVID-TE Risk Assessment Model for Venous Thromboembolism in Hospitalized Patients with Cancer and COVID-19](#). *Journal of Thrombosis and Haemostasis*.

Li, G., Walco, J. P., Mueller, D. A., **Wanderer, J. P.**, & **Freundlich, R. E.** (2021). [Reliability of the ASA Physical Status Classification System in Predicting Surgical Morbidity: a Retrospective Analysis](#). *Journal of Medical Systems*, 45(9), 83.

Preininger, A. M., Rosario, B. L., Buchold, A. M., Heiland, J., Kutub, N., Bohanan, B. S., South, B., **Jackson, G. P.** (2021). [Differences in information accessed in a pharmacologic knowledge base using a conversational agent vs traditional search methods](#). *International Journal of Medical Informatics*, 153, 104530.

Rees, A. B., Schultz, J. D., Wollenman, L. C., **Moore-Lotridge, S. N.**, Martus, J. E., Mencio, G. A., & Schoenecker, J. G. (2021). [Internal Rotation Stress Test Reduces Cross-Pinning and Improves Outcomes in Displaced Pediatric Supracondylar Humeral Fractures](#). JB & JS open access, 6(3), e21.00014.

Schultz, J. D., Rees, A. B., Wollenman, L. C., McKeithan, L. J., Tadepalli, V. R., Wessinger, B. C., **Moore-Lotridge, S. N.**, . . . Schoenecker, J. G. (2021). [Factors That Drive Annual Variation in Pediatric Elbow Fracture Occurrence, Severity, and Resource Utilization](#). *Journal of Pediatric Orthopaedics*. *Journal of Pediatric Orthopaedics*.

Tevaarwerk, A. J., Chandereng, T., **Osterman, T.**, Arafat, W., Smerage, J., Polubriaginof, F. C. G., . . . Martin, D. B. (2021). [Oncologist Perspectives on Telemedicine for Patients With Cancer: A National Comprehensive Cancer Network Survey](#). *JCO Oncology Practice*, 0(0), OP.21.00195.

Walco, J. P., Mueller, D. A., Lakha, S., Weavind, L. M., Clifton, J. C., & **Freundlich, R. E.** (2021). [Etiology and Timing of Postoperative Rapid Response Team Activations](#). *Journal of Medical Systems*, 45(8), 82.

August

Frazier, S. B., Walls, C., Jain, S., Plemmons, G., & **Johnson, D. P.** (2021). [Reducing Chest Radiographs in Bronchiolitis Through High-Reliability Interventions](#). *Pediatrics*, e2020014597.

Grossman Liu, L., Rogers, J. R., Reeder, R., **Walsh, C. G.**, Kansagara, D., Vawdrey, D. K., & Salmasian, H. (2021). [Published models that predict hospital readmission: a critical appraisal](#). *BMJ Open*, 11(8), e044964.

Kawamoto K., Kukhareva, P.V., Weir C., Flynn M. C., Nanjo C. J., Martin D. K., Warner P. B., Shields D. E., Rodriguez-Loya S., Bradshaw R. L., Cornia R. C., **Reese T. J.**, ... Del Fiol, G. (2021) [Establishing a multidisciplinary initiative for interoperable electronic health record innovations at an academic medical center](#). *JAMIA Open*, 4(3).

Liu, S., Li, J., & Liu, J. (2021). [“Leveraging Transfer Learning to Analyze Opinions, Attitudes, and Behavioral Intentions Toward COVID-19 Vaccines: Social Media Content and Temporal Analysis.”](#) *Journal of Medical Internet Research*, 23(8), e30251.

Liu, S., **Reese, T.**, Kawamoto K., Del Fiol, G., Weir, C. (2021). [“A Theory-based Meta-regression of Factors Influencing Clinical Decision Support Adoption and Implementation.”](#) *Journal of the American Medical Informatics Association*. Accepted.

Accepted or In Press

Li, P., Chen, B., Rhodes, E., Slagle, J., **Alrifai, W.**, **France, D.**, Chen Y. Measuring Collaboration Through Concurrent Electronic Health Record Usage. Accepted by JMIR.

Reese T. J., Del Fiol, G., Morgan K, Hurwitz, J. T., Kawamoto K., Gomez-Lumbreras A., Brown M. L., Thies H., Vazquez S. R., Nelson S., Boyce R., Malone, D. (2021). “Shared Decision Making for Drug Interactions: Design and Usability of an Application for Warfarin and Non-steroidal Anti-inflammatory Drugs.” *JMIR Preprints*.

Reese T. J., Schlechter, C. R., Kramer, H., Kukhareva, P., Weir, C., Del Fiol, G., Caverly, T., Hess, R., Flynn, M. C., Taft, T., Kawamoto, K. (2021). "Implementing Lung Cancer Screening in Primary Care: Needs Assessment and Implementation Strategy Design. *Translational Behavioral Medicine.*"

Steitz, BD., Unertl, KM., Levy, MA. (2021). "An Analysis of Electronic Health Record Work to Manage Asynchronous Clinical Messages among Breast Cancer Care Teams." *Applied Clinical Informatics.* In Press.

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!