# **CHRISTOPHER A HARLE**

# Department of Health Outcomes and Biomedical Informatics College of Medicine University of Florida <u>charle@ufl.edu</u> <u>https://hobi.med.ufl.edu/profile/harle-christopher/</u>

# **EDUCATION**

Ph.D., Information Systems and Management	Carnegie Mellon University, 2009
<b>M.S.</b> , Business Administration Decision and Information Sciences	University of Florida, 2003
<b>B.S.,</b> Business Administration (with highest honors) Decision and Information Sciences	University of Florida, 2002

## **POSITIONS AND EMPLOYMENT**

# University of Florida (UF) and UF Health Department of Health Outcomes and Biomedical Informatics College of Medicine

Professor	2020 –
Chief Research Information Officer University of Florida Health	2020 –
Affiliate Professor, Department of Health Services Research, Management and Policy	2020 –
Regenstrief Institute, Inc.	
Affiliated Scientist	2020 –
Indiana University, Indianapolis (IUPUI) Department of Health Policy and Management Richard M. Fairbanks School of Public Health	
Associate Professor	2015 – 2019
Scientist – Regenstrief Institute, Center for Biomedical Informatics (CBMI) Program Director – PhD in Health Policy and Management	2017 – 2019
	2015 – 2019
Associate Faculty – Kelley School of Business	2016 – 2019

# University of Florida (UF) Department of Health Services Research, Management and Policy College of Public Health and Health Professions

Assistant Professor	2009 – 2015
Assistant Professor (by courtesy), Department of Information Systems and Operations Management, Warrington College of Business Administration	2011 – 2015
Faculty Liaison, Integrated Data Repository (IDR) UF Health and Clinical and Translational Science Institute	2011 – 2015
KL2 Scholar, Clinical and Translational Science Institute	2012 – 2015
University of Florida (UF) Institute for Child Health Policy College of Medicine	
Coordinator Statistical Research, External Quality Review Organization for Texas Medicaid Programs	2004-2005
HONORS AND AWARDS	
<b>Tobias Fellow</b> Tobias Leadership Center, Indiana University, Indianapolis, IN	2019
Indianapolis Business Journal Forty Under 40 Indianapolis, IN	2018
IUPUI Research Frontiers Trailblazer Award Indiana University-Purdue University, Indianapolis (IUPUI)	2017
<b>Deans Citation Award</b> College of Public Health and Health Professions, University of Florida	2014 a
Scholarship Recipient Fundamentals of Pain Management course at American Pain Society Annual Meeting	2014
<b>Deans Citation Award</b> College of Public Health and Health Professions, University of Florida	2013
<b>Teaching Excellence Award</b> Master of Health Administration Program, University of Florida	2013
Student Paper Award, Third Place American Medical Informatics Association Annual Symposium	2009

**Outstanding Teaching Assistant Award** Heinz College – School of Public Policy and Management Carnegie Mellon University

#### ARTICLES IN PEER REVIEWED JOURNALS AND PROCEEDINGS

- 1. Taylor H, Brumitt G, Williams K, **Harle CA**, Johnston A, Vest JR. Student perceptions of a teaching electronic medical record in health administration education. *Journal of Health Administration Education*. (2021) [In Press].
- 2. Apathy NC, Vest JR, Adler-Milstein J, Blackburn, J, **Harle, CA**. Practice and market factors associated with provider volume of health information exchange. *Journal of the American Medical Informatics Association* (2021) [In Press].
- Bookman RJ, Cimino JJ, Harle CA, Kost RG, Mooney S, Pfaff E, Rojevsky S, Tobin J, Wilcox A, Tsinoremas NF. Research Informatics and the COVID-19 Pandemic: Challenges, Innovations, Lessons Learned, and Recommendations. *Journal of Clinical and Translational Science* (2021) [In Press].
- 4. Danielson EC, **Harle CA**, Downs SM, Militello L, Mazurenko O. MD How opioid prescribing policies influence primary care clinicians' treatment decisions and conversations with patients with chronic pain. *Journal of Opioid Management* (2021) [In Press].
- 5. Apathy NC, **Harle CA**, Vest JR, Morea JG, Menachemi N. Use of Electronic Health Records on Days Off: Comparing Physicians to Other EHR Users. *Journal of General Internal Medicine* (2021) [In Press].
- 6. Hentschel A, Hisao CJ, Chen LY, Wright L, Shaw J, Du X, Flood-Grady E, **Harle CA**, Reeder CF, Francois M, Louis-Jacque A, Shenkman E, Krieger JL, Lemas DJ. Perspectives of pregnant and breastfeeding persons on participating in longitudinal mother-baby studies involving electronic health records: a qualitative study. *JMIR Pediatric and Parenting*. (2021) [In Press].
- 7. Golembiewski EH, Mainous AG, Rahmanian KP, Brumback B, Rooks BJ, Krieger JL, Goodman KW, Moseley RE, **Harle CA**. An Electronic Tool to Support Patient-centered Broad Consent: A Multi-Arm Randomized Clinical Trial in Family Medicine. *Annals of Family Medicine*. 2021 19(1): 16-23.
- Bian J, Lyu T, Loiacono A, Mendoza-Viramontes T, Lipori G, Guo Y, Wu Y, Prosperi M, George TJ, Harle CA, Shenkman EA, Hogan WR. Assessing the Practice of Data Quality Evaluation in a National Clinical Data Research Network through a Systematic Scoping Review in the era of Realworld Data. *Journal of the American Medical Informatics Association*. 2020 27(12): 1999-2010.
- 9. Militello LG, Hurley RW, Cook RL, Danielson EC, Dilulio J, Downs SM, Anders S, **Harle CA.** Primary care clinicians' beliefs and strategies for managing chronic pain in an era of a national opioid epidemic. *Journal of General Internal Medicine*. 2020 35(12): 3442-3548.
- Mazurenko O, Blackburn J, Bair MJ, Kara AY, Harle CA. Receipt of Opioids and Patient Care Experiences among Non-surgical Hospitalized Adults. *Health Services Research*. 2020 55(5):651-659.
- 11. Mazurenko O, Andraka-Christou B, Bair MJ, Kara A, Harle CA. Clinical perspectives on hospitals'

role in the opioid epidemic. BMC Health Services Research. 2020 20, 521.

- 12. Biviji R, Vest JR, Dixon BE, Cullen T, **Harle, CA**. Content Analysis of Behavior Change Techniques in Maternal and Infant Health Apps. *Translational Behavioral Medicine*. 2020 [e-pub ahead of print].
- 13. Biviji R, Vest JR, Dixon BE, Cullen T, **Harle CA**. Factors Related to User Ratings and User Downloads of Mobile Apps for Maternal and Infant Health: A Cross-Sectional Study. *JMIR MHealth and UHealth*. 2020 8(1):e15663.
- 14. Diiulio J, Militello LG, Andraka-Christou BT, Cook RL, Hurley RW, Downs SM, Anders S, **Harle CA**. Factors That Influence Changes to Existing Chronic Pain Management Plans. *Journal of the American Board of Family Medicine*. 2020 33(1): 42-50.
- 15. Danielson EC, Mazurenko O, Andraka-Christou BT, Diiulio J, Downs SM, Hurley RW, **Harle CA.** An Analysis of Primary Care Clinician Communication About Risk, Benefits, and Goals Related to Chronic Opioid Therapy. *MDM Policy & Practice*. 2019 4(2).
- 16. Marcial LH, Blumenfeld BH, Harle CA, Jing Xia, Keller MS, Lee VC, Lin Z, Dover A, Midboe A, Al-Showk S, Bradley V, Breen JK, Fadden M, Lomotan E, Marco-Ruiz L, Reem M, O'Connor PJ, Rosendale D, Solomon H, Kawamoto K. Barriers, Facilitators, and Potential Solutions to Advancing Interoperable Clinical Decision Support: Multi-Stakeholder Consensus Recommendations for the Opioid Use Case. *Proceedings of the 2019 American Medical Informatics Association (AMIA) Annual Symposium*. Washington, D.C., November 2019, 527-534.
- 17. Harle CA, Diiulio J, Downs SM, Danielson EC, Anders S, Cook RL, Hurley RW, Mamlin BW, Militello LG. Decision-Centered Design of Patient Information Visualizations to Support Chronic Pain Care. *Applied Clinical Informatics*. 2019 10(4): 719-728.
- 18. **Harle CA**, Golembiewski EH, Rahmanian KP, Brumback B, Krieger JL. Mainous AG III, Moseley RE. Does an Interactive Trust-enhanced Electronic Consent Improve Patient Experiences when Asked to Share their Health Records for Research? A Randomized Trial. *Journal of the American Medical Informatics Association*. 2019 26(7): 620-629.
- 19. Mazurenko O, Andraka-Christou, B, Bair M, Kara A, **Harle, CA**. Balancing patient-centered and safe pain care for non-surgical inpatients: clinical and managerial perspectives. *The Joint Commission Journal on Quality and Patient Safety* 2019 45(4): 241-248.
- Smith DM, Weitzel KW, Elsey AR, Langaee T, Gong Y, Wake DT, Duong BQ, Hagan M, Harle CA, Mercado E, Nagoshi Y, Newsom K, Wright A, Rosenberg EI, Starostik P, Clare-Salzler MJ, Schmidt SO, Fillingim RB, Johnson JA, Cavallari LH. CYP2D6-guided opioid therapy improves pain control in CYP2D6 intermediate and poor metabolizers: a pragmatic clinical trial. *Genetics in Medicine* 2019, 21: 1842-1850.
- 21. Taylor H, **Harle CA**, Johnson SM, Menachemi N. Workplace Incivility experienced by Health Administration Faculty. *Journal of Health Administration Education*. 2019, 36(2): 191-216.
- 22. Williams K, **Harle CA**, Vest JR, Johnson AL, Menachemi N. How and Why Health Administration Students Should Learn How to Use an EHR. *Journal of Health Administration Education*. 2018, 35(4): 575-585.

- 23. Harle CA, Apathy NC, Cook RL, Danielson EC, Dilulio J, Downs SM, Hurley RW, Mamlin BW, Militello, LG, Anders, S. Information Needs and Requirements for Decision Support in Primary Care: An Analysis of Chronic Pain Care. *Proceedings of the 2018 American Medical Informatics Association (AMIA) Annual Symposium*. Washington, D.C., November 2018, 527-534.
- 24. Vest JR, **Harle CA**, Menachemi N. Guidance on academic presentations for doctoral students and junior faculty. *Journal of Health Administration Education*. 2018 35(4): 587-598.
- 25. Militello LG, Anders S, Downs SM, Dilulio J, Danielson EC, Hurley RW, **Harle CA**. Understanding how primary care clinicians make sense of chronic pain. *Cognition Technology and Work*. 2018. 20(4): 575-584.
- 26. Menachemi N, Rahurkar S, **Harle CA**, Vest JR. The Benefits of Health Information Exchange: An Updated Systematic Review. *Journal of the American Medical Informatics Association*. 2018, 25(9): 1259-1265.
- 27. **Harle CA,** Danielson E, Derman W, Stuart M, Dvorak J, Smith L, Hainline B. Analgesic Management of Pain in Elite Athletes: A Systematic Review. *Clinical Journal of Sports Medicine*. 2018, 28(5): 417-426.
- 28. Harle CA, Golembiewski EH, Rahmanian KP, Krieger JL. Hagmajer D, Mainous AG III, Moseley RE. Patient Preferences toward an Interactive E-Consent Application for Research Using Electronic Health Records. *Journal of the American Medical Informatics Association*. 2018, 25(3): 360-368.
- 29. Apathy NC, Menser T, Keeran L, Ford EW, **Harle CA**, Huerta, TR. Trends and gaps in awareness of direct-to-consumer genetic tests from 2007-2014. *American Journal of Preventive Medicine*. 2018, 54(6): 806-813.
- Mills JC, Harman JS, Cook RL, Marlow NM, Harle CA, Duncan RP, Gaynes BN, Pence BW. Comparative effectiveness of dual vs single-action antidepressants on HIV clinical outcomes in HIV-infected people with depression. *AIDS*. 2017, 31(18): 2515-2524.
- Hainline B, Derman W, Vernec A, Budgett R, Masataka D, Dvorak J, Harle C, Herring SA, McNamee M, Meeuwisse W, Moseley GL, Omololu B, Orchard J, Pipe A, Pluim BM, Raeder J, Siebert C, Stewart M, Stuart M, Turner JA, Ware M, Zideman D, Engebretsen L. International Olympic Committee consensus statement on pain management in elite athletes. *British Journal of Sports Medicine*. 2017, 51:1245-1258.
- 32. Militello LG, Anders S, Downs SM, Diiulio J, Danielson EC, Hurley RW, **Harle CA**. Using Sensemaking to Better Understand Chronic Pain Management. *Proceedings of the 13th International Conference on Naturalistic Decision Making*. Bath, UK, June 2017.
- Mills JC, Harman JS, Cook RL, Pence BW, Marlow N, Harle CA, Duncan RP. Comparative Effectiveness of Dual-Action versus Single-Action Antidepressants for the Treatment of Depression in People Living with HIV/AIDS. *Journal of Affective Disorders*. 2017, 215: 179-186
- 34. **Harle CA**, Marlow NM, Schmidt SOF, Shuster JJ, Listhaus A, Fillingim RB, Hurley RW. The Effect of EHR-Integrated Patient Reported Outcomes on Satisfaction with Chronic Pain Care. *American Journal of Managed Care*. 2016, 22(12): e403-e408.

- 35. Vest JR, **Harle CA**, Schleyer T, Dixon BE, Grannis SJ, Halverson P, Menachemi N. Getting from here to there: HIT needs for population health. *American Journal of Managed Care*. 2016, 22(12): 827-829. [Invited commentary]
- 36. lafrate PI, Lipori GP, **Harle CA**, Nelson DR, Barnash TJ, Leebove TJ, Adams KA, Montgomery D. Consent2Share: an integrated broad consenting process for re-contacting potential study subjects. *Journal of Clinical and Translational Research*. 2016, 2(4): 1.
- Tang C, Lorenzi N, Harle CA, Zhou X, Chen Y. Interactive Systems for Patient-Centered Care to Enhance Patient Engagement. *Journal of the American Medical Informatics Association*. 2016, 23: 2-4 [Invited commentary].
- 38. Harle CA, Lipori G, Hurley RW. Collecting, Integrating, and Disseminating Patient-Reported Outcomes for Research in a Learning Healthcare System. *eGEMs (Generating Evidence & Methods to improve patient outcomes).* 2016 4(1), Article 13.
- 39. **Harle CA**, Mullen CJ, Vest JR, Menachemi N. Not only teachers: What do health administration faculty members do? *Journal of Health Administration Education*. 2016, 33(2): 235-251.
- 40. **Harle CA**, Vest JR, Menachemi N. Using Bibliometric Big Data to Analyze Faculty Research Productivity in Health Policy and Management. *Journal of Health Administration Education*. 2016, 33(2): 285-293.
- 41. Harman JS, Mills, J, Cook RL, Harle CA. Electronic Medical Records and Primary Care Services for Anxiety. *Psychiatric Services*. 2016, 67(10): 1152-1155.
- 42. Valiani V, Gao S, Chen Z, Swami S, **Harle CA**, Lipori G, Sourdet S, Wu S, Nayfield SG, Sabba C, Pahor M, Manini T. In-Hospital Mobility Variations Across Primary Diagnoses Among Older Adults. *Journal of the American Medical Directors Association*. 2016, 17(5): 465: e1-8.
- 43. Huerta TR, **Harle CA**, Ford EW, Diana ML, and Menachemi, N. Measuring Patient Satisfaction's Relationship to Hospital Cost Efficiency: Can Administrators Make a Difference? *Health Care Management Review*. 2016, 41(1): 56-63.
- 44. **Harle CA,** Listhaus A, Covarrubias C, Schmidt SOF, Mackey S, Carek PJ. Fillingim RB, Hurley RW. Overcoming Barriers to Implementing Patient-Reported Outcomes in an Electronic Health Record: A Case Report. *Journal of the American Medical Informatics Association*. 2015, 23: 74-79.
- 45. **Harle CA**, Bauer SE, Hoang HQ, Cook RL, Hurley RW, Fillingim RB. Decision support for chronic pain care: how do primary care physicians decide when to prescribe opioids? a qualitative study. *BMC Family Practice*. 2015, 16: 48. [Highly Accessed article on biomedcentral.com]
- 46. Tighe P, **Harle CA**, Hurley RW, Aytug H, Boezaart AP, Fillingim RB. Teaching a Machine to Feel Postoperative Pain: Combining High-Dimensional Clinical Data with Machine Learning Algorithms to Forecast Acute Postoperative Pain. *Pain Medicine*. 2015, 16(7): 1386-1401.
- 47. Mainous AG, Tanner RJ, **Harle CA**, Baker R, Shokar N, Hulihan MM. Attitudes toward Management of Sickle Cell Disease and its Complications: A National Survey of Academic Family Physicians. *Anemia*. 2015, Article ID 853835.

- Tran CH, Sugimoto JD, Pulliam JRC, Ryan KA, Myers PD, Castleman JB, Doty R, Johnson J, Stringfellow J, Kovacevich N, Brew J, Cheunk LL, Caron B, Lipori G, Harle CA, Alexander C, Yang Y, Longini IM, Halloran ME, Small PA, Morris JG. School-Located Influenza Vaccination Reduces Community Risk for Influenza and Influenza-Like Illness Emergency Care Visits. *PLOS ONE*. 2014, 9(12): e114479.
- 49. **Harle CA,** Cook RL, Kinsell HS, Harman JS. (2014) Opioid Prescribing by Physicians With and Without Electronic Health Records. *Journal of Medical Systems*. 2014, 38(11).
- 50. Diana ML, **Harle CA**, Huerta TR, Ford EW, Menachemi N. Hospitals Characteristics Associated with Achievement of Meaningful Use. *Journal of Healthcare Management*. 2014, 59(4): 272-284.
- 51. **Harle CA**, Gruber LA, Dewar MA. Factors in Medical Student Beliefs about Electronic Health Record Use. *Perspectives in Health Information Management*. 2014, Winter.
- 52. Mainous AG, Tanner RJ, Baker R, Zayas CE, **Harle CA**. Prevalence of Prediabetes in England from 2003 to 2011: population-based cross-sectional study. *BMJ Open*. 2014, 4(6): e005002.
- 53. Tighe PJ, **Harle CA**, Boezaart AP, Aytug H, Fillingim R. Of Rough Starts and Smooth Finishes: Correlations between Post-Anesthesia Care Unit and Postoperative Day 1-5 Pain Scores. *Pain Medicine*. 2014, 15(2): 306-315.
- 54. Kitchens B, **Harle CA**, Li S. Quality of Health-Related Online Search Results. *Decision Support Systems*. 2014, 57: 454-462.
- 55. Bandyopadhyay S, **Harle, CA**, Pathak P. Introduction to special issue on health care information systems," *Decision Support Systems*. 2014, 57: 365-366 [invited commentary].
- 56. **Harle CA**, Harman, JS, Yang S, Physician and Patient Characteristics Associated with Clinical Inertia in Blood Pressure Control. *Journal of Clinical Hypertension*. 2013, 15(11): 820-824.
- 57. Menachemi, N, **Harle CA**. Family Physicians Leading in EHR Adoption, But Do We Know Why or How? *Annals of Family Medicine*, January 25, 2013 [invited commentary].
- 58. **Harle, CA**, Huerta T, Ford EW, Diana M, Menachemi N. Overcoming Challenges to Achieving Meaningful Use: Insights from hospitals that successfully received CMS payments in 2011. *Journal of the American Medical Informatics Association*. 2013, 20(2): 233-237.
- 59. Harle CA, Menachemi N. Will Electronic Health Records Improve Health Care Quality? Challenges and Future Prospects. *Expert Review of Pharmacoeconomics and Outcomes Research*. 2012, 12(4): 387-390.
- 60. Harman JS, Rost KM, **Harle CA**, Cook RL. Electronic Medical Record Availability and Primary Care Depression Treatment," *Journal of General Internal Medicine*, 2012, 27(8): 962-967.
- 61. Harle CA, Downs JS, Padman R. Effectiveness of Personalized and Interactive Health Risk Calculators: a Randomized Trial. *Medical Decision Making*, 2012, 32(4): 594-605.
- 62. Harle CA, Neill DB, Padman R. Information Visualization for Chronic Disease Risk Assessment. *IEEE Intelligent Systems*, 2012 27(6): 81-85 [invited article].

- 63. Harle CA, Dewar MA. Factors in Physician Expectations of a Forthcoming Electronic Health Record Implementation. *Proceedings of the 45th Annual Hawaii International Conference on Systems Sciences.* January 4-7, 2012, Computer Society Press, 2012.
- 64. Menachemi N, Yeager V, Bilello LA, **Harle CA,** Sullivan C, Siler-Marsiglio K. Florida Doctors Seeing Medicaid Patients Show Broad Interest in Federal Incentives for Adoption Electronic Health Records. *Health Affairs*. 2011, 30(8): 1461-1470.
- 65. Harle CA, Padman R, Downs JS. A Clustering Approach to Segmenting Users of Internet-Based Risk Calculators. *Methods of Information in Medicine*. 2011, 50(3): 244-252.
- 66. Kitchens, B, **Harle CA**, Li S. Exploring the Frequency of Quality Health Information in Online Search Results. *Proceedings of the 6th INFORMS Workshop on Data Mining and Health Informatics (DM-HI 2011)*.
- 67. Harle CA, Padman R, Downs JS. Design, Implementation, and Preliminary Evaluation of a Webbased Health Risk Calculator. *Proceedings of the 42nd Annual Hawaii International Conference on Systems Sciences*. January 5-8, 2009, Computer Society Press, 2009.
- 68. Harle CA, Downs JS, Padman R. Designing a Personalized Health Risk Communication Website to Motivate User Attention and Systematic Processing. *Proceedings of the Seventh Annual Pre-ICIS Workshop on HCI Research in MIS*. Paris, France, December 13, 2008.
- 69. **Harle CA**, Padman R, Downs JS. The Impact of Web-Based Diabetes Risk Calculators on Information Processing and Risk Perceptions. *Proceedings of the 2008 American Medical Informatics Association (AMIA) Annual Symposium*. Washington, D.C., November 8-12, 2008.
- 70. **Harle CA**, Neil DB, Padman R. An Information Visualization Approach to Classification and Assessment of Diabetes Risk in Primary Care. *Proceedings of the 3rd INFORMS Workshop on Data Mining and Health Informatics (DM-HI 2008)*. Washington, D.C., October 11, 2008.

## PEER REVIEWED ABSTRACTS

- 71. Mazurenko O, Andraka-Christou B, Bair M, Kara A, **Harle CA**. Balancing patient-centeredness and patient safety in the hospitals: The case of pain care and patient satisfaction. *Journal of Clinical and Translational Science*. 2018, 2(S1), 79-79.
- 72. Bell, TM, **Harle, CA**, Watson DP, Carroll, AE. Risk factors for prescription opioid misuse after traumatic injury in adolescents. *Journal of Clinical and Translational Science*. 2018, 2(S1), 87-87.
- 73. Danielson EC, Mazurenko O, Andraka-Christou BT, Dilulio J, Downs SM, Hurley RW, **Harle CA**. How do primary care clinicians and patients discuss risks, benefits, and goals in chronic opioid therapy? *The Journal of Pain*. 2018, 19(3): S73-74.

- 74. Harle CA, Anders S, Militello L, Downs SM, Danielson EC, Mamlin B, Cook RL, Hurley RL. Developing clinical decision support for chronic pain by understanding clinician information needs during primary care visits. *The Journal of Pain*. 2017, 18(4): S50.
- 75. **Harle CA,** Schmidt SOF, Shuster J, Mackey S, Listhaus A, Bell L, Covarrubias C, Chisholm T, Fillingim RB, Hurley RW. Toward Clinical Decision Support for Chronic Pain: Integrating Patient Reported Outcomes in an Electronic Health Record. *The Journal of Pain*. 2015, 16(4):S6.
- 76. **Harle CA**, Hurley RW, Bell L, Chisholm T, Schmidt SOF, Shuster JJ, Fillingim RB. Process Variation and Data Quality Risks in Electronically Collected Patient Reported Outcomes. *Journal of Clinical and Translational Science*. 2014 7(3).
- 77. **Harle CA**, Cook RW, Fillingim RB. Informing Clinical Decision Support for Chronic Pain in Primary Care: How do Physicians Decide When to Initiate Opioids? *The Journal of Pain*. 2014, 15(4): S87.
- 78. Swami S, **Harle C**, Lipori G, Sourdet S, Nayfiled S, Pahor M, Manini T. Mobility Impairment and Recovery during hospitalization in older adults. *Journal of the American Geriatrics Society*. 2014, 62: S253-0.
- 79. **Harle CA**, Cook RL, Kinsell HS, Harman JS. The Relationship Between Electronic Health Record Use and Opioid Prescribing in Primary Care Office Visits. *Journal of Clinical and Translational Science*. 2013, 6(2).

## **OTHER PUBLICATIONS**

- Osheroff JA, Blumenfeld BH, Richardson JE, Lasater B, **Opioid Action Plan Working Group\***. A Stakeholder-driven Action Plan for Improving Pain Management, Opioid Use and Opioid Use Disorder Treatment Through Patient-Centered Clinical Decision Support. Research Triangle Park, NC: Patient-Centered Clinical Decision Support Learning Network; 2019, [White paper].
  \*Member of the working group
- 81. Harle CA, Dewar MA, Gruber LA. Start Simple... Maybe: Rolling Out an EHR in a Multispecialty Group Practice. in *HIT or Miss: Lessons Learned from Health Information Technology Implementations*, Leviss (ed), AHIMA, 2013 [Book chapter].
- 82. **Harle CA**, Menachemi N. Meaningful Use in Year Two and Beyond: Informing the Efforts of RECs *iHealthbeat.org*, 6 Feb 2012. iHealthBeat is the premier daily news digest reporting on the impact of information technology on healthcare. [Invited commentary].

## SELECTED PRESENTATIONS

**Harle CA**. Actionable Opportunities for Improving Opioid Prescribing through Use of Informatics. Panel Research Presentation at 2020 American Medical Informatics Association (AMIA) Annual Symposium, November 15-18, 2020.

**Harle CA**. Healthcare Delivery Systems, EHRs, and the Future of an App-based Ecosystem: Old Wine in New Bottles? Panel Research Presentation at 2020 American Medical Informatics Association (AMIA) Annual Symposium, November 15-18, 2020.

**Harle CA.** Effects of an Interactive Trust-enhanced Electronic Consent on Patient Experiences with Consenting to Share their Health Records for Research. Podium Presentation at 2019 American Medical Informatics Association (AMIA) Annual Symposium, November 16-20, 2019.

Danielson E, **Harle CA.** Factors Related to User Ratings and User Downloads of Mobile Apps for Maternal and Child Health (MCH). Poster presentation at 2019 American Medical Informatics Association (AMIA) Annual Symposium, November 16-20, 2019.

**Harle CA**. Informatics Needs and Solutions to Support Safe Opioid Prescribing and Effective Pain Care. Panel Research Presentation at 2018 American Medical Informatics Association (AMIA) Annual Symposium, San Francisco, November 4-7, 2018.

**Harle CA**, Apathy, NC, Cook, RL, Danielson, EC, Dilulio, J, Downs, SM, Hurley, RW, Mamlin, BW, Militello, LG, Anders, S. Information Needs and Requirements for Decision Support in Primary Care: An Analysis of Chronic Pain Care. Oral Paper presentation at the 2018 American Medical Informatics Association (AMIA) Annual Symposium. Washington, D.C., November 4-7, 2018.

Rahurkar S, Vest JR, **Harle CA**, Menachemi N. Scientific Evidence Now Links Health Information Exchange to A Wide Range of Benefits. Oral Presentation at 2018 American Medical Informatics Association (AMIA) Annual Symposium, San Francisco, November 4-7, 2018.

Apathy NC, **Harle CA**. Patient Consent Policies for State Health Information Exchange and Level of Provider Exchange. Oral Presentation at 2018 American Medical Informatics Association (AMIA) Annual Symposium, San Francisco, November 4-7, 2018.

Hogan T, Mazurenko O, **Harle CA**, Hiligoss B, Menachemi N, Lemak C. First Year on Faculty: How to Hit the Ground Running. Professional Development Workshop (PDW) Presentation at 2018 Academy of Management Annual Meeting – Health Care Management Emerging Scholars Consortium, Chicago, August 10, 2018.

Danielson EC, Mazurenko O, Andraka-Christou BT, Dilulio J, Downs SM, Hurley RW, **Harle CA**. How patients and primary care clinicians discuss the risks, benefits, and goals of opioid treatment. Oral presentation at AcademyHealth Annual Research Meeting, Seattle, WA, June 24-26, 2018.

**Harle CA**, Anders S, Apathy N, Cook RL, Danielson EC, Dilulio J, Downs SM, Hurley RW, Mamlin BW, Militello L. Designing a user-centered electronic health record decision support system for guideline-concordant opioid prescribing. Poster presented at AcademyHealth Annual Research Meeting, Seattle, WA, June 24-26, 2018.

Biviji R, Vest JR, Dixon BE, Cullen T, **Harle CA**. Factors Related to User Ratings and User Downloads of Mobile Apps for Maternal and Child Health (MCH). Poster presented at AcademyHealth Annual Research Meeting, Seattle, WA, June 24-26, 2018.

Golembiewski EH, **Harle CA**. Creating a Lexicon to Support Identifying Patients with Homelessness through Natural Language Processing of Clinical Notes. Poster presented at AcademyHealth Annual Research Meeting, Seattle, WA, June 24-26, 2018.

**Harle, CA**. Designing and Evaluating Information Systems to Support Decision Making. Visiting Professor, Health Policy Workshop Series, School of Public and Environmental Affairs, Indiana University, Bloomington, IN. March 29, 2018.

**Harle CA**. Using Data to Address the Opioid Crisis. Panel Presentation at AcademyHealth Health Datapalooza, Washington, D.C., April 26-27, 2018.

Anders S, Militello LG, Downs SM, Hurley RW, Cook RL, Danielson EC, **Harle CA.** Information Technology Gaps in Primary Care Management of Chronic Pain. Oral Presentation at 2018 International Symposium on Human Factors and Ergonomics in Health Care, Boston, MA, March 26-28, 2018.

**Harle CA**. Opioid prescribing decisions: patients, providers, pain, and PDMPs. Presentation at WFYI Indianapolis Side Effects Event on Prescription Drug Monitoring and Opioid Prescribing Guidelines, December 2017. <u>http://sideeffectspublicmedia.org/events</u>

**Harle CA.** Successes and Challenges in Developing and Implementing Electronic Informed Consent Tools for Research. Panel Research Presentation at 2017 American Medical Informatics Association (AMIA) Annual Symposium, Washington, D.C., November 4-8, 2017.

Apathy N, Vest JR, Menachemi N, Putz J, Morea J, **Harle CA.** Differing patterns of satisfaction and perception among clinical and non-clinical users following replacement of a legacy EHR system. Podium Abstract Presentation at 2017 American Medical Informatics Association (AMIA) Annual Symposium, Washington, D.C., November 4-8, 2017.

**Harle CA**, Vest JR, Menachemi N. Using Bibliometric Big Data to Analyze Faculty Research Productivity. Oral Presentation at 2017 Academy of Management Annual Meeting, Healthcare Management Division Professional Development Workshop, Atlanta, GA, August 4-8, 2017.

**Harle CA**, Downs SM. Designing Decision Support Tools for Chronic Pain in Primary Care. Oral Presentation at Indiana Academy of Family Physicians Annual Meeting, July 2017.

Andraka-Christou B, Dilulio J, Downs SM, Cook R, **Harle CA**. Clinician-Patient Discussions of Opioid Risks, Opioid Benefits, and Pain Management Goals: A Qualitative Study of Primary Care Visits. Poster presented at AcademyHealth Annual Research Meeting, New Orleans, LA, June 25-27, 2017.

Apathy N, Vest JR, Menachemi N, **Harle CA**. Changes in User Perceptions of Their Electronic Health Record Following the Replacement of a Legacy System. Poster presented at AcademyHealth Annual Research Meeting, New Orleans, LA, June 25-27, 2017.

Bako AT, Apathy N, **Harle CA**, Menachemi N, Vest JR. User Concerns Following Replacement of a Legacy Electronic Health Record: A Longitudinal Qualitative Study. Poster presented at AcademyHealth Annual Research Meeting, New Orleans, LA, June 25-27, 2017.

Norwood C, **Harle CA**. The Association Between Nurse Practitioner (NP) Scope-of-Practice Policies and NP Time Spent Providing Direct Patient Care. Poster presented at AcademyHealth Annual Research Meeting, New Orleans, LA, June 25-27, 2017.

Anders S, Militello L, Downs SM, Danielson EC, Mamlin BW, Cook RL, Hurley RW, **Harle CA.** Primary Care Clinician Sensemaking for Managing Patients with Chronic Pain. Poster presented at Human Factors and Ergonomics Society (HFES) International Symposium on Human Factors and Ergonomics in Health Care, New Orleans, LA, March 5-8, 2017.

Harle CA, Listhaus A, Covarrubias C, Schmidt SOF, Carek PJ, Fillingim RB, Hurley RW. Overcoming

Barriers to Implementing Social and Behavioral Patient-Reported Outcomes in an Electronic Health Record. Oral presentation at AcademyHealth Annual Research Meeting, Minneapolis, MN, June 14-16, 2015.

Kinsell HS, Harman JS, **Harle CA**, Duncan RP, Cook RL. The Impact of Florida's Anti-Pill Mill Law on Prescription Drug Abuse Outcomes. Oral presentation at AcademyHealth Annual Research Meeting, Minneapolis, MN, June 14-16, 2015.

**Harle CA,** Schmidt SOF, Mercado E, Orlando F, Desai A, Listhaus A, Bell L, Chisholm T, Hurley R, Assessing the Impact of Integrating Electronic Health Records and Patient-Reported Outcomes for Chronic Pain on the Process and Quality of Care in Family Medicine. Oral presentation at Society of Teachers of Family Medicine (STFM) Annual Spring Conference, Orlando, FL, April 25-29, 2015.

**Harle CA**, Hurley RW, Bell L, Chisolm T, Schmidt SOF, Shuster JJ, Fillingim RB. Process Variation and Data Quality Risks in Electronically Collected Patient Reported Outcomes. Poster presented at AcademyHealth Annual Research Meeting, San Diego, CA, June 8-10, 2014.

**Harle CA**, Kinsell H, Schwarz J, Bavry AA, Shorr RI, Limacher MC, Pearson TA, Mainous AG. Toward Automated Cardiovascular Disease Risk Assessment in Electronic Health Records: How Useful are the Data?, Poster presented at University of Florida Clinical and Translational Science Institute (CTSI) Research Day, Gainesville, FL, June 5, 2014.

**Harle, CA,** Kitchens B, Li Shengli. The Relationship between Health Information Quality and Search Engine Results. Visiting Professor, Center for Health Informatics and Policy (CHiP), Weill Cornell Medical College, New York, May 28, 2014.

**Harle CA**, Hurley RW, Schmidt SOF, Shuster JJ, Fillingim RB. Designing, Implementing, and Evaluating an Information System to Integrate Patient Reported Outcomes in Electronic Health Records, Poster and oral presentation at University of Florida Clinical and Translational Science Institute (CTSI) Research Day, Gainesville, FL, June 5, 2014.

**Harle CA**, Cook RW, Fillingim RB. Informing Clinical Decision Support for Chronic Pain in Primary Care: How do Physicians Decide When to Initiate Opioids? Poster presented at American Pain Society Annual Meeting, Tampa, FL, April 30 – May 3, 2014.

**Harle CA**, Hurley RW, Bell L, Chisolm T, Schmidt SOF, Shuster JJ, Fillingim RB. Process Variation and Data Quality Risks in Electronically Collected Patient Reported Outcomes. Poster presented at the Translational Science Meeting, Washington, D.C., April 9-11, 2014.

**Harle CA,** Fillingim RB, Cook RL. The Pain of Managing Opioid Analgesics in Primary Care: Can Electronic Health Records Help? Late breaking abstract presented at 2013 American Medical Informatics Association (AMIA) Annual Symposium, Washington, D.C., November 16-19, 2013.

**Harle CA,** Cook RL, Kinsell HS, Harman JS. The Relationship between Electronic Health Record Use and Opioid Prescribing in U.S. Primary Care Office Visits. Oral presentation at AcademyHealth Annual Research Meeting, Baltimore, MD, June 23-25, 2013.

Bilello L, **Harle CA**, Harman JS, Duncan RP, Cook RL. The Relationship Between Electronic Health Record Stage 1 Meaningful Use Objectives and Hospital Quality of Care. Poster presented at AcademyHealth Annual Research Meeting, Baltimore, MD, June 23-25, 2013. Bilello L, **Harle CA**, Harman JS, Duncan RP, Cook RL. Organizational Characteristics Associated with Electronic Health Record "Meaningful Use" in Hospitals. Poster presented at AcademyHealth Annual Research Meeting, Baltimore, MD, June 23-25, 2013.

Harman JS, Cook RL, **Harle CA**. Association of EMR Use with Anxiety Treatment During Office Visits in the United States. Poster presented at AcademyHealth Annual Research Meeting, Baltimore, MD, June 23-25, 2013.

Diana, M, **Harle CA**, Huerta TR, Ford EW, Menachemi N. What Type of Hospitals Have Achieved Meaningful Use? Poster presented at AcademyHealth Annual Research Meeting, Baltimore, MD, June 23-25, 2013.

**Harle CA**, Cook RL, Fillingim RB. The Pain of Managing Chronic Opioid Therapy in Primary Care: Can Electronic Health Records Help? Oral presentation at University of Florida Clinical and Translational Science Institute (CTSI) Research Day, Gainesville, FL, June 20, 2013.

Lipori G, lafrate P, **Harle CA**, Deason R, Horne E, Sortino S. Putting the Pieces Together for Research, Quality and Safety: University of Florida Health Integrated Data Repository. Poster presented at 6th Annual Clinical Research Management Workshop, Yale Center for Clinical Investigation, Washington, D.C., June 3-4, 2013.

**Harle CA,** Cook RL, Kinsell H, Harman JS. The Relationship Between Electronic Health Record Use and Opioid Prescribing in U.S. Primary Care Office Visits. Poster presented at Association for Clinical and Translational Science Meeting 2013, Washington, DC, April 18, 2013.

**Harle CA**, Deason D. UF&Shands Academic Health Center Integrated Data Repository – 2012 Update on i2b2 for Cohort Discovery. Oral presentation at UF and VA Institute on Aging Clinical Translational Aging Research Series, Oct. 29, 2012.

**Harle CA**, Schumacher JR, Everhart DM, Bilello, LA, Markham, MJ. Long-term Breast Cancer Survivors' Perceptions of Cancer Risk: A Mental Models Study. Poster presented at the Society for Medical Decision Making Annual Meeting, Phoenix, AZ, October 17, 2012.

**Harle CA**, Huerta T, Ford E, Diana M, Menachemi N. Overcoming Challenges to Achieving Meaningful Use: Insights from hospitals that successfully received CMS payments in 2011. Oral presentation at Workshop on Health IT and Economics (WHITE), Washington D.C., October 6, 2012.

**Harle CA**, Dewar MA. Physician Beliefs about an Upcoming Electronic Health Record Implementation. Poster presented at AcademyHealth Annual Research Meeting, Orlando, FL, June 18, 2012.

Harman JS, **Harle CA**, Yang S. Clinician and Patient Characteristics Associated with Clinical Inertia in Blood Pressure Control. Poster presented at AcademyHealth Annual Research Meeting, Orlando, FL, June 18, 2012.

Harman JS, **Harle CA**, Yang S. Clinician and Patient Characteristics Associated with Clinical Inertia in Blood Pressure Control. Poster presented at American Society of Hypertension Annual Scientific Meeting and Exposition, New York, May 19, 2012.

Harle CA, Ebel C, Lipori G, Deason D. UF&Shands Integrated Data Repository. Oral presentation at UF

and VA Institute on Aging Clinical Translational Aging Research Series, Oct. 31, 2011.

Neil D, **Harle CA**, Padman R, Solano F, Zgibor J. Clinician Information Needs for Data Visualization Based Diabetes Risk Assessment and Guideline Compliance. Poster presented at American Medical Informatics Association Annual Symposium, Washington D.C., Oct. 25, 2011.

**Harle CA**, Kitchens B, Li Shengli. The Relationship between Health Information Quality and Search Engine Results. Oral presentation at Workshop on Health IT and Economics (WHITE), Washington D.C., October 22, 2011.

Harman JS, **Harle CA**, Cook RL, Rost KM. Association of EMR Use with Depression Treatment During Primary Care Office Visits. Oral presentation at AcademyHealth Annual Research Meeting, Seattle, WA, June 2011.

Bilello LA, **Harle CA**, Menachemi N, Siler-Marsiglio K, Sullivan C. Assessing Florida Hospital's Preparedness for the HITECH EHR Incentive Program. Poster presented at AcademyHealth Annual Research Meeting, Seattle, WA, June 2011.

Menachemi N, Yeager V, Bilello LA, **Harle CA**, Sullivan C, Siler-Marsiglio K. Factors Predicting Physician Reported Intention to Participate in HITECH's EHR Initiative. Poster presented at AcademyHealth Annual Research Meeting, Seattle, WA, June 2011.

**Harle CA,** Ebel C, Lipori G, Deason D. UF&Shands Integrated Data Repository. Oral presentation at Shands HealthCare Executive Meeting, Jun 22, 2011.

**Harle, CA**, Barnes C, Williams S, Deason R, Ebel C, Nayfield S. Implementing Risk Assessment Tools in an Integrated Patient Data Repository for Aging Research, Poster Presented at 2<sup>nd</sup> Annual University of Florida Spotlight on Research in Aging, April 15, 2011.

Bilello LA, **Harle CA**. Assessing Florida Hospital's Preparedness for the HITECH EHR Incentive Program. Poster presented at University of Florida College of Public Health and Health Professions Research Day, March 23, 2011.

**Harle CA**, Downs JS, Padman R. Biased Assimilation of Personalized Health Risk Calculator Information, Oral Presentation at AcademyHealth Annual Research Meeting, Boston, MA, June 29, 2010.

**Harle CA.** Invited presentation at Information Systems and Operations Management Forum, Warrington College of Business, University of Florida. April 9, 2010.

**Harle CA**, Downs JS, Padman R. Exploring Variation in User Adoption of Personalized Risk Calculator Estimates, Oral presentation at American Medical Informatics Association (AMIA) Annual Symposium, San Francisco, CA, November 15, 2009.

**Harle CA,** The Impact of Web-Based Risk Calculators on Health Risk Perceptions and Information Processing, Invited presentation at INFORMS 2008, Washington, D.C., October 12-15, 2008.

**Harle CA**, Padman R, Neil D. An Information Visualization Approach to Classification and Assessment of Diabetes Risk, Poster Presented at 29th Annual Meeting of the Society for Medical Decision Making, Pittsburgh, PA, October 20-24, 2007.

**Harle CA**, Padman R, Neil D. An Information Visualization Approach to Classification and Assessment of Diabetes Risk, Poster Presented at Quality of Life Technology Center Expo, Pittsburgh, PA, April 12, 2007.

**Harle CA**, Padman R, Neil D. Information Visualization and Meeting Physician Information Needs for Risk and Compliance Assessment, Oral presentation at INFORMS 2006, Pittsburgh, PA, November 5-8, 2006.

## **CURRENT GRANTS AND CONTRACTS**

**PI**, R21DA046085. (R21/R33). Nudging Primary Care Providers toward Guideline-Recommended Opioid Prescribing through Easier and More Convenient EHR Information Design. National Institute on Drug Abuse (NIDA). \$2,223,377. 2017-2022.

**Site PI**, Evaluating the Comparative Effectiveness of Telemedicine in Primary Care: Learning from the COVID-19 Pandemic. Patient Centered Outcomes Research Institute (PCORI) \$ \$3,083,675. 11/2020-10/2022 (PI Ancker and Kaushal, Weill Cornell Medical College).

**Co-I**, R01 CA234030. Text and Talk: A Intervention to Increase Multi-level Provider HPV Vaccine Recommendation Effectiveness. National Cancer Institute (NCI) \$2,900,000. 2019-2024. (PI Staras).

**Co-I**, Advancing Privacy-Preserving Record Linkage Methods in the Context of Real-World Data Networks & HIE. Patient Centered Outcomes Research Institute (PCORI). \$1,027,578. 2018-2021. (PI Grannis).

**Co-I**, R01HS023808. Enhancing Patient Matching in Support of Operational Health Information Exchange. Agency For Healthcare Research and Quality (AHRQ). \$1,122,239. 2017–2022. (PI Grannis).

## COMPLETED GRANTS AND CONTRACTS

**PI**, Rapid Development of Pandemic Models for Actionable Clinical and Administrative Decision Support. University of Florida Clinical and Translational Science Institute (subproject under: National Center for Advancing Translational Science UL1TR001427) and University of Florida Informatics Institute. \$99,792. 5/2020 – 11/2020.

**Co-I**, Doctor-Patient Cancer Communications through Telemedicine during COVID-19. (subproject under: National Center for Advancing Translational Science UL1TR001427). \$80,555. 5/2020 – 11/2020. (PI Bylund).

**Co-PI**, Analytics for Administrators: Adapting Novel Clinical Education Platform for Health Administration Education. IUPUI Center for Teaching and Learning: Curriculum Enhancement Grant. \$14,969. 2018-2019 (Co-PIs Vest and Johnston).

**PI**, R01HD086700. An Interactive Patient-Centered Consent for Research Using Electronic Medical Records. Eunice Kennedy Shriver National Institute of Child Health & Human Development. \$1,150,923. 2015 –2019. (Co-PIs Ray Moseley and Arch Mainous)

**PI**, Clinical Decision Support for Centers for Disease Control and Prevention (CDC) Opioid Guidelines. The Office of the National Coordinator for Health IT (ONC) and the CDC (subcontract from Security Risk Solutions), \$96,174. 2019.

**Co-I**, 3T15LM012502-01S1. The Indiana Training Program in Public & Population Health Informatics (Administrative Supplement). National Library of Medicine (NLM). \$100,000. 2017-2018. (PIs Dixon, Schleyer).

**PI,** An Integrative and Sustainable Approach to Pain Management in Primary Care. Pfizer, Inc. Medical Education Group. \$499,977.00. October 2013 – March 2016. (Co-PI Robert Hurley)

**PI,** Using Information Technology to Improve Opioid Prescribing Decisions in Primary Care. KL2 Mentored Career Development Award. National Institutes of Health (NCATS) and University of Florida Clinical and Translational Science Institute (CTSI). October 2012 – March 2015. \*Research funds supplement awarded in January 2013.

**Co-I,** Designing an Information System for Conducting Community-Based Trials on People's Health Insurance Choices. University of Florida Clinical Translational Science Institute – Pilot and Collaborative Research Projects Program Grants Application, \$19,995 (with Lyle Brenner, Paul Duncan, Christopher Barnes, Narayan Raum). June 1, 2011 – June 30, 2012.

**Co-I**, (PI on sub-contract from Carnegie Mellon University) Information Visualization for Cognitively Guided Decision Making for Diabetes Risk Assessment and Guideline Compliance, UPMC Healthcare Innovation Grant, \$9,568.50. (with Rema Padman, PI and Daniel Neil). October 12, 2011 – December 31, 2011.

**PI,** A Mental Models Approach to Understanding Cancer Survivors' Health Risk Beliefs. American Cancer Society – Chris DiMarco Institutional Research Grant, \$30,000 (with Jessica Schumacher, Merry-Jennifer Markham and Patricia Shearer). December 31, 2010 – December 30, 2011.

**Co-I**, Clinician and Patient Characteristics Associated with Clinical Inertia in Blood Pressure Control. Novartis. \$36,715. (with Jeffrey Harman, PI and Shuo Yang). September 1, 2010 – February 28, 2011.

**PI** (on sub-contract from WellFlorida Council, Agency for Health Care Administration), State of Florida Health Information Technology Environmental Scan Medicaid Environmental Scan, \$10,500. June 15, 2010 – October 31, 2010.

**Co-PI**, Reversing Type 1 Diabetes After it is Established: A Pilot Safety and Feasibility Study of Anti-Thymocyte Globulin (Thymoglobulin<sup>®</sup>) and Pegylated GCSF (Neulasta<sup>®</sup>) in Established Type 1 Diabetes -Type 1 Diabetes Pilot Study Informatics Core, University of Florida Clinical and Translational Science Institute Pilot and Collaborative Research Project, \$99,336, (with Michael Haller, PI and June Nogle), November 2009 – October 2011.

**PI**, The Impact Of Web-Based Health Risk Communication On Information Processing and Risk Perceptions. McDowell Research Center for Global Information Technology Management (MRC), University of North Carolina at Greensboro (UNCG), \$5,000, (with Rema Padman and Julie Downs), April 2008.

**PI**, Risk Information Processing and Perceptual Updating in the Context of Web-Based Risk Calculators. Carnegie Mellon University Center for Behavioral Decision Research (CBDR), \$2,500, (with Rema Padman and Julie Downs), December 2007.

# **PROFESSIONAL SERVICE**

<b>Technical Expert Panel</b> eCare Planning for Multiple Chronic Conditions Agency for Healthcare Research and Quality (AHRQ) and National Institute Of Diabetes and Digestive and Kidney Diseases (NIDDK)	2019-2020
Grant Review Reviewer, HEAL Initiative: Pragmatic and Implementation Studies for the Management of Pain to Reduce Opioid Prescribing (PRISM) National Center for Complementary and Integrative Health (NCCIH) National Institutes of Health	2020
Reviewer, National Institutes of Drug Abuse (NIDA) National Institutes of Health	2019
Standing Member, Health Information Technology Research (HITR) Study Section Agency for Healthcare Research and Quality (AHRQ)	2016 – 2019 (Ad-hoc 2015)
Reviewer, National Institute of Dental and Craniofacial Research (NIDCR) National Institutes of Health	2019
Reviewer, National Awareness and Early Diagnosis Initiative (NAEDI) Dept. of Health England	
Journal Editing Special issue on Interactive Systems for Patient-Centered Care to Enhance Patient Engagement Journal of the American Medical Informatics Association (JAMIA)	2016
Special issue on Healthcare Information Systems Decision Support Systems	2012
<b>Conference and Workshop Organization</b> Scientific Program Committee American Medical Informatics Associate (AMIA) Virtual Informatics Summit	2021
Theme Co-leader, Digital Technologies, Data, and Data Science AcademyHealth Annual Research Meeting	2019
Theme Co-leader, Technology and Health Theme AcademyHealth Annual Research Meeting	2017
Scientific Program Committee American Medical Informatics Associate (AMIA) Annual Symposium	2016
Co-organizer Workshop on Interactive Systems in Healthcare (WISH) co-located with AMIA Annual Symposium	2014

Program committee member Big Data Analytics in Healthcare Conference	2014
Health care track associate editor International Conference on Information Systems (ICIS)	2012

#### Journal Review (selected)

International Journal of Medical Informatics, Journal of the American Medical Informatics Association (JAMIA), JAMIA Open, Health Affairs, Journal of Medical Internet Research, Applied Clinical Informatics, Management Science, Healthcare: The Journal of Delivery Science and Innovation, Pain Medicine, Family Medicine, Pediatrics, BMC Health Services Research, Advances in Health Care Management

#### **Conference Review** (selected)

AcademyHealth Annual Research Meeting, American Medical Informatics Association (AMIA) Annual Symposium, Big Data Analytics in Healthcare Conference, Hawaii International Conference on Systems Sciences (HICSS), International Conference on Information Systems (ICIS), Global Information Technology and Management Association Conference (GITMA), Medicine 2.0 World Congress, Pacific Asia Conference on Information Systems (PACIS).

Professional Association Membership and Service	
Member, American Medical Informatics Association (AMIA)	2009 –
Member, AcademyHealth	2010 -
Education Council	2018 -
Member, Academy of Management	2017 –
Member, American Pain Society	2013 – 2018
Member, Association for Information Systems (AIS)	2009–2010
Member, INFORMS	2006, 2008–2010
UNIVERSITY SERVICE	
University of Florida	
Vice Chair – COVID-19 Scientific Review Committee	2020 –
Clinical and Translational Science Institute (CTSI)	
Co-Chair – Steering Committee for Faculty Hiring -	2020 –
Artificial Intelligence in the Health Sciences	
Indiana University and Regenstrief Institute	
Fellowship Subcommittee	2018 – 2019
University Graduate School	
Research Committee	2018 – 2019
Richard M. Fairbanks School of Public Health	
Strategic Initiative Co-leader (Opioid Crisis)	2018 – 2019
Grant Review	2017 – 2019
Clinical and Translational Science Institute	

Executive Committee T15 Training Program in Public and Population Health Informatics Richard M. Fairbanks School of Public Health / Regenstrief Institute	2017 – 2019
Privacy and Security Council Regenstrief Institute	2016 – 2019
Data Core Service Advisory Committee Clinical and Translational Science Institute (CTSI)	2015 – 2019
PhD Committee Committee Chair	2015 – 2019
Richard M. Fairbanks School of Public Health Department of Health Policy and Management	2019
Faculty Search Committees	2015 – 2018
<u>University of Florida</u> College of Public Health and Health Professions Blended Learning Task Force	2014 – 2015
UF Health Integrated Data Repository (IDR) Project (Faculty liaison)	2011 – 2015
College of Public Health and Health Professions curriculum committee (Committee chair 2010-2011)	2009 – 2015
Executive Vice President for Research and Education's strategy workshop on research regulations ( <i>Invited participant</i> )	2014
Department of Health Services Research, Management and Policy Faculty Search Committee	2009–2013
University of Florida Biomedical Informatics Research Interest Group	2010–2012
University of Florida Physicians Faculty Group Practice Ambulatory Meaningful Use Working Group	2011
University Graduation Marshal	2009–2011
PHHP Research Committee (Ad hoc reviewer)	2010, 2012–2013
Master of Health Administration (MHA) Committee ( <i>admissions review, curriculum/strategy</i> )	2009–2013
HSRMP PhD Committee (admissions review, curriculum/strategy)	2009-2013

# TEACHING AND ADVISING

#### INSTRUCTOR

#### Indiana University

Management Science (Fairbanks School of Public Health) Healthcare Information Systems (Fairbanks School of Public Health) PhD Seminar in Health Policy and Management Research (Fairbanks School of Public Health) Operations Management (Kelley School of Business)

## University of Florida

Information Management in Health Administration Health Services Operations Management PhD Quality and Outcomes in Health Services Research PhD Seminar in Information Systems/Information Technology (Warrington College of Business)

#### DOCTORAL STUDENT ADVISING

Dissertation committee co-chair, Nate Apathy (graduated 2020) Dissertation committee co-chair, Elizabeth Danielson (graduated 2020) Dissertation committee member, Joanna Jackson (graduated 2019) Dissertation committee chair, Elizabeth Golembiewski (graduated 2019) Dissertation committee chair, Rizwana Biviji (graduated 2018) Dissertation committee chair, Connor Norwood (graduated 2017) Dissertation committee member, Jon Mills (graduated 2016) Dissertation committee member, Macey Henderson (graduated 2016) Dissertation committee member, Sarah Bauer (graduated 2016) Dissertation committee member, Patrice Jones (graduated 2015) Dissertation committee member, Heidi Kinsell (graduated 2015) Dissertation committee co-chair, Lori Bilello (graduated 2012) Dissertation committee member, Christopher Sistrom (graduated 2010)

## OTHER GRADUATE STUDENT ADVISING

Master of Health Administration (MHA) (University of Florida) Master of Public Health (MPH) (University of Florida) Master of Science in Information Technology (Carnegie Mellon University) Master of Science in Public Policy and Management (Carnegie Mellon University)